MAY 3 1 1994

License No: 06-27843-02 Docket No: 030-29266 Control No: 114227

Bristol - Myers Squibb Company ATTN: Michael F. Mee Senior Vice President & Chief Financial Officer 345 Park Avenue New York, New York 10154-0037

Dear Mr. Mee:

Subject: Financial Assurance for Decommissioning

This is in reference to your submittals dated February 18, 1991, March 25, 1994 and March 28, 1994, to provide financial assurance for License No. 06-27843-02. We have reviewed these documents and have no further questions at this time.

Based on the information provided in the above referenced documents, you are presently in compliance with the financial assurance requirements outlined in the decommissioning rule in 10 CFR 30.35.

If you have any questions, please contact Anthony Dimitriadis, of my staff, at (610) 337-6953.

Your cooperation with us is appreciated.

Sincerely,

Original Signed By: Mohamed M. Shanbaky

Mohamed M. Shanbaky, Chief Research and Development Section Division of Radiation Safety and Safeguards

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ML 10

cc: Bristol - Myers Squibb Company ATTN: Pamela D. Kasa Vice Pre Ident, Secretary and Associate General Counsel 345 Park Avenue

New York, New York 10154-0037

Bristol - Myers Squibb Company ATTN: Barry P. Allen Environmental Counsel 345 Park Avenue New York, New York 10154-0037

Bristol - Myers Squibb Company
ATTN: George S. Nagle, Director Environmental Health & Safety
Pharmaceutical Research & Development Divsion
P.O. Box 5100
5 Research Parkway
Wallingford, Connecticut 06492 bcc: M. Shanbaky, RI A. Dimitriadis, RI

.

DRSS:RI Dimitriadis R 05/23/94

DRSS:RI Shanbaky 05/27/94

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NOTE TO DMB:

THE ATTACHED DOCUMENTS ARE TO BE PROCESSED AS <u>ONE</u> FINANCIAL ASSURANCE FOR DECOMMISSIONING PACKAGE.

LICENSE NUMBER: 06-27843-02

DOCKET NUMBER: 030-29264

CONTROL NUMBER: 114227

THIS SHEET MAY BE DISCARDED AFTER PROCESSING.

THANK YOU!

Bristol-Myers Squibb Company

345 Park Avenue New York, NY 1015440037 212 545-4000

April 11, 1994

Mr. Ronald R. Bellamy, Chief Nuclear Materials Safety Branch Division of Radiation Safety and Safeguards U.S. Nuclear Regulatory Commission Region I 475 Allendale Road King of Prussia, PA 19406-1415

Re: License No. 06-27843-02 (Demand for Information Dated March 9, 1994)

Dear Mr. Bellamy:

This letter is in response to your letter dated March 9, 1994, which was directed to Mr. George Nagle. I have previously been in contact with Mr. Anthony Dimitriadis of your staff concerning the supplementation he believes is necessary to update the previously filed Parent Company Guarantee for this license in accordance with NRC requirements. Under separate cover, and after discussing my plans with Mr. Dimitriadis, I have sent a completely revised and updated financial assurance with respect to this license to Mr. John Kinneman, Chief, Research Development and Decommissioning Section. I trust that the submission to Mr. Kinneman will resolve any open issizes as to form or language which may have arisen from our 1991 submission of financial assurance for License No. 06-27843-02.

If you have any questions, or if I may be of any further assistance, please do not hesitate to contact me at (212)546-4610. Please thank Mr. Dimitriadis for his advice and guidance, which were quite helpful in allowing me to prepare the submission that was sent to Mr. Kinneman.

Sincerely, Dany P. all

Barry P. Allen Environmental Counsel

BPA/mmo

cc: Anthony Dimitriadis George Nagle Carl Noonan

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Bristol-Myers Squibb Company

345 Park Avenue: New York, NY 10154-0037 212-546-4000

March 28, 1994

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John D. Kinneman, Chief Research Development and Decommissioning Section Division of Radiation Safety and Safeguards U. S. Nuclear Regulatory Commission Region I 475 Allendale Road King of Prussia, PA 19406-1415

Re: NRC License No. 06-27843-02

Dear Mr. Kinneman:

On behalf of Bristol-Myers Squibb Company, I am submitting the enclosed documentation for the referenced license, which is in the name of our operating division, Bristol-Myers Squibb Pharmaceutical Research Institute. This package of information is to assure financial assurance for decommissioning.

The enclosed material includes the following:

- Letter From Chief Financial Officer of Corporate Parent Including Cost Estimates and Data From Audited Financial Statements;
- 2. Parent Company Guarantee;
- Certificate of Resolution From Corporate Secretary and Accompanying Resolution;
- Auditor's Confirmation of Letter By Chief Financial Officer of Corporate Parent;
- 5. 1993 Annual Report of Bristol-Myers Squibb Company.

I have also included a duplicate original package which contains each of the above-listed items.

If you have any questions about this Parent Company Guarantee, please do not hesitate to contact me at (212)546-4610.

Sincerely, Barry P all

Barry P. Allen Environmental Counsel

BPA/mmo enclosures

114227 MAR 2 9 1994

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LETTER FROM CHIEF FINANCIAL OFFICER OF CORPORATE PARENT, INCLUDING COST ESTIMATES AND DATA FROM AUDITED FINANCIAL STATEMENTS

March 25, 1994

Mr. John D. Kinneman, Chief Research Development and Decommissioning Section Division of Radiation Safety and Safeguards U. S. Nuclear Regulatory Commission Region I 475 Allendale Road King of Prussia, PA 19406-1415

Re: NRC License No. 06-27843-02

Dear Mr. Kinneman:

I am the Chief Financial Officer of Bristol-Myers Squibb Company, a Delaware corporation. This letter is in support of this firm's use of the financial test to demonstrate financial assurance, as specified in 10 CFR Part 30.

This firm guarantees, through the parent company guarantee submitted to demonstrate compliance under 10 CFR Part 30, the decommissioning of the following facility owned or operated by the Bristol-Myers Squibb Pharmaceutical Research Institute, an operating division of our Pharmaceutical Division. The Pharmaceutical Division is an operating division of Bristol-Myers Squibb Company. The current cost estimates for decommissioning, so guaranteed, are shown for each facility:

Name of Facility	Location of Facility	Current Cost Estimates
Wallingford	Connecticut	\$ 750,000 ¹

This firm is required to file a Form 10K with the U.S. Securities and Exchange Commission for the latest fiscal year.

The fiscal year of this firm ends on December 31. The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements and footnotes for the latest completed fiscal year, ended 1993.

Note: From NRC Reg. Guide 3.66 (dated June 1990), p. 1-8 and Appendix G.

Mr. John D. Kinneman

- 2 -

March 25, 1994

Financial Test: Alternative I

1.	Decommissioning cost estimates or certified amounts for all facilities under NRC License No. 06-27843-02 (total of all cost estimates shown in paragraphs above)	s	750,000
*2.	Total liabilities (Note: no portion of the cost estimate for decommissioning is included in total liabilities on the Bristol-Myers Squibb financial statement; thus, this amount has not been deducted		
	from this line and has not been added to lines 3 and 4)	S	6,161,000,000
*3.	Tangible net worth**	\$	5,642,000,000
*4.	Net worth	\$	5,940,000,000
*5.	Current assets	\$	6,570,000,000
*6.	Current liabilities	\$	3,065,000,000
*7.	Net working capital (line 5 minus line 6)	\$3	3,505,000,000
*8.	The sum of net income alus depreciation, depletion, and amortization	\$2	2,267,000,000
*9.	Total assets in United States (required only if less than 90 percent of firm's assets are located in the United States)	\$4	4,476,000,000
		Yes	No
10.	Is line 3 at least \$10 million?	<u>X</u>	
11.	Is line 3 at least 6 times line 1?	<u>X</u>	
12.	Is line 7 at least 6 time line 1?	_X_	
13.	Are at least 90 percent of firm's assets located in the United States? If not, complete line 14.		<u>_X</u>
14.	Is line 9 at least 6 times line 1? (Guarantor must meet two of the following three ratios)	<u>×</u>	

*Denotes figures derived from financial statements. **Tangible net worth is defined as net worth minus goodwill, patents, trademarks, and copyrights.

Mr. John D. Kinneman

- 3 -

March 25, 1994

Financial Test: Alternative I (Cont'd)

		Yes	No
15.	Is line 2 divided by line 4 less than 2.0?	Х	
16.	Is line 8 divided by line 2 greater than 0.1?	_ <u>X</u>	
17.	Is line 5 divided by line 6 greater than 1.5?	_X	

I hereby certify that the content of this letter is true and correct to the best of my knowledge.

For Bristol-Myers Squibb Company

An 7 Alle

Michael F. Mee Senior Vice President and Chief Financial Officer

Date: 3/25/94

PARENT COMPANY GUARANTEE

Guarantee made this <u>25th</u> day of <u>March</u>, 1994, by Bristol-Myers Squibb Company, a corporation organized under the laws of the State of Delaware, herein referred to as "guarantor," to the U.S. Nuclear Regulatory Commission (NRC), herein referred to as "beneficiary," on behalf of our operating division, Bristol-Myers Squibb Pharmaceutical Research Institute, the licensee under License No. 06-27843-02, whose address is 5 Research Parkway, P.O. Box 5100, Wallingford, Connecticut 06492. (The licensee will hereafter be referred to as "BMS PRI.")

Recitals

5 ×

1.4

- The guarantor has full authority and capacity to enter into this guarantee 1. under its bylaws, articles of incorporation, and the laws of the State of Delaware, its State of incorporation. Guarantor has approval from its Board of Directors to enter into this guarantee.
- 2. This guarantee is being issued to comply with regulations issued by the NRC, an agency of the U.S. Government, pursuant to the Atomic Energy Act of 1954, as amended, and the Energy Reorganization Act of 1974. NRC has promulgated regulations in Title 10, Chapter I of the Code of Federal Regulations, Part 30, which require that a holder of, or an applicant for, a materials license issued pursuant to 10 CFR Part 30 provide assurance that funds will be available when needed for required decommissioning activities.
- The guarantee is issued to provide financial assurance for decommissioning 3. activities for:

Name of Facility Bristol-Myers Squibb Pharmaceutical Research Institute

Location of Facility P.O. Box 5100 5 Research Parkway Wallingford, CT 06492

as required by 10 CFR Part 30. The decommissioning costs guaranteed for the identified facility is as follows:

Name of Facility Wallingford

Current Cost Estimates \$750.0001

4. The guarantor meets or exceeds the following financial test criteria of Alternative I, and agrees to comply with all notification requirements as specified in 10 CFR Part 30:

Alternative I

(a) (i) Net working capital and tangible net worth each at least six times the current decommissioning cost estimates (or

¹ Note: From NRC Reg. Guide 3.66 (dated June 1990), p. 1-8 and Appendix G.

times the current decommissioning cost estimates (or prescribed amount if certification is used): and

- (ii) Assets located in the United States amounting to at least 90 percent of its total assets or at least six times the amount of the current decommissioning cost estimates; and
- (iii) Meets two of the following three ratios: a ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities that is greater than 0.1; and a ratio of current assets to current liabilities that is greater than 1.5; and
 - (iv) Tangible net worth of at least \$10 million.

or

Alternative II

- (b) (i) A current rating of its most recent bond issuance of AAA, AA, A or BBB as issued by Standard and Poor's, or Aaa, Aa or Baa as rated by 'noody's; and
 - (ii) Tangible net worth is at least \$1) million and at least six times the current decommissioning cost estimate (or prescribed amount if a certification is used); and
 - (iii) Assets located in the United States amounting to at least 90 percent of its total assets or at least six times the current decommissioning cost (or prescribed amount if certification is used).
- 5. The guarantor operates the licensee, BMS PRI, as an operating division of our Pharmaceutical Division. The Pharmaceutical Division is an operating division of Bristol-Myers Squibb Company, the guarantor. The licensee covered by this guarantee is as follows:

Name of Facility	Address of Facility	Licensee of Facility			
allingford P.O. Box 5100		Bristol-Myers Squibb			
	5 Research Parkway Wallingford, CT 06492	Pharmaceutical Research Institute			

- Decommissioning activities as used below refers to the activities required by 10 CFR Part 30 for decommissioning of the facilities identified above.
- 7. Pursuant to the authority conferred upon the guarantor by the unanimous resolution of its Board of Directors, a certified copy of which is

attached, the guarantor guarantees to the NRC that if the licensee fails to perform the required decommissioning activities, as required by License No. 06-27843-02, the guarantor shall

- (a) carry out the required activities, or
- (b) set up a trust fund in favor of the above identified beneficiary in the amount of these current cost estimates for these activities.
- The guarantor agrees to submit revised financial statements, financial test data, and a special auditor's report and reconciling schedule annually within 90 days of the close of the parent guarantor's fiscal year.
- 9. The guarantor agrees that if, at the end of any fiscal year before termination of this guarantee, it fails to meet the financial test criteria, the licensee shall send within 90 days of the end of the fiscal year, by certified mail, notice to the NRC that the licensee intends to provide alternative financial assurance as specified in 10 CFR Part 30. Within 120 days after the end of the fiscal year, the guarantor shall establish such financial assurance if the licensee has not done so.
- 10. The guarantor also agrees to notify the beneficiary promptly if the ownership of the licensee or the parent firm is transferred and to maintain this guarantee until the new parent firm or the licensee provides alternative financial assurance acceptable to the beneficiary.
- 11. The guarantor agrees that within 30 days after it determines that it no longer meets the financial test criteria or it is disallowed from continuing as a guarantor for the facility under License No. 06-27843-02, it shall establish an alternative financial assurance as specified in 10 CFR Part 30, in the name of Bristol-Myers Squibb Pharmaceutical Research Institute (BMS PRI) unless BMS PRI has done so.
- 12. The guarantor as well as its successors and assigns agree to remain bound jointly and severally under this guarantee, notwithstanding any or all of the following: amendment or modification of the license or any other modification or alteration of an obligation of the licensee pursuant to 10 CFR Part 30.
- 13. The guarantor agrees that all bound parties shall be jointly and severally liable for all litigation costs incurred by the beneficiary in any successful effort to enforce the agreement against the guarantor.
- 14. The guarantor agrees to remain bound under this guarantee for as long as BMS PRI must comply with the applicable financial assurance requirements of 10 CFR Part 30 for the previously listed facility, except that the guarantor may cancel this guarantee by sending notice by certified mail to the NRC and to BMS PRI, such cancellation to become effective no earlier than 120 days after receipt of such notice by both the NRC and BMS PRI, as evidenced by the return receipts.

- 15. The guarantor agrees that if BMS PRI fails to provide alternative financial assurance as specified in 10 CFR Part 30, as applicable, and obtain written approval of such assurance from the NRC within 90 days after a notice of cancellation by the guarantor is received by both the NRC and BMS PRI from the guarantor, the guarantor shall provide such alternative financial assurance in the name of Bristol-Myers Squibb Pharmaceutical Research Institute or make full payment under the guarantee.
- 16. The guarantor expressly waives notice of acceptance of this guarantee by the NRC or by BMS PRI The guarantor also expressly waives notice of amendments or modifications of the license.
- 17. If the guarantor files financial reports with the U.S. Securities and Exchange Commission, then it shall promptly submit such reports to the NRC during each year in which this guarantee is in effect.

I hereby certify that this guarantee is true and correct to the best of my knowledge.

Effective date: March 25, 1994

For the Guarantor, Bristol-Myers Squibb Company

Michael F. Mee Senior Vice President and Chief Financial Officer

Notary

· *

My commission expires:

RAQUEL MALDONADO Notary Public, State Of New York No. 01MA7678375 Qualified In Rockland County Certificate Filed in New York County Commission Expires August 31, 1994

- 4 -

CERTIFICATION OF FINANCIAL ASSURANCE

Licensee: Bristol-Myers Squibb Pharmaceutical Research Institute (an operating division of Bristol-Myers Squibb Company) P.O. Box 5100 5 Research Parkway Wallingford, CT 06492

NRC License Number 06-27843-02, for the following facility:

Name of Facility

Location of Facility

License Number

Bristol-Myers Squibb	P
Pharmaceutical Resear	rch 5
Institute	W

P.O. Box 5100 5 Research Parkway Wallingford, CT 06492

06-27843-02

Issued to: U.S. Nuclear Regulatory Commission

This is to certify that Bristol-Myers Squibb Pharmaceutical Research Institute is licensed to possess the following types and amounts of isotopes:

Isotope

Amount

Calcium - 45 Carbon - 14 Chlorine - 36 Gadolinium - 153 Hydrogen - 3

100 millicuries 3 curies 500 millicuries¹ 250 millicuries 6 curies

¹ A request to amend the license to reduce this amount to 250 millicuries is being filed contemporaneously with the 1994 filing of the financial assurance paperwork.

and that financial assurance in the amount prescribed by 10 CFR Part 30, in the amount of \$750,000, has been obtained for the purpose of decommissioning.

Michael F. Mee Senior Vice President and Chief Financial Officer

Date:

Corporate Seal:

This is to certify that Michael F. Mee is known to me as the Senior Vice President and Financial Officer of Bristol-Myers Squibb Company, and that he is authorized to make the certification shown herein.

Chiet

By: Pamela D. Kasa Vice President, Secretary and Associate General Counsel Bristol-Myers Squibb Company

Date: 3/25

[Seal]

CERTIFICATE OF RESOLUTION

I, Pamela D. Kasa, do hereby certify that I am the Secretary of Bristol-Myers Squibb Company and that Bristol-Myers Squibb Co. is a Delaware corporation. Bristol-Myers Squibb Co. operates the Bristol-Myers Squibb Pharmaceutical Research Institute, the licensee (under NRC License No. 06-27843-02) as an operating division of our Pharmaceutical Division. The Pharmaceutical Division is an operating division of Bristol-Myers Squibb Company, the guarantor of the accompanying Parent Company Guarantee. I hereby further certify that the resolution, attached hereto as Exhibit A, was duly adopted at a meeting of this Corporation's Board of Directors on March 2, 1993.

IN WITNESS WHEREOF, I have hereunto signed my name and affixed the seal of this Corporation this 25th day of March, 1994.

Pamela D. Kasa

Vice President, Secretary and Associate General Counsel Bristol-Myers Squibb Company

CERTIFICATION

I, Raquel I. Maldonado, Assistant Secretary of Bristol-Myers Squibb Company (the "Company"), a corporation organized under the laws of the State of Delaware, hereby certify that the following is a true and exact copy of a resolution taken from the minutes of a regular meeting of the Board of Directors of said corporation, held at the offices of the Company, 345 Park Avenue, New York, New York, on the 2nd day of March, 1993.

> RESOLVED, that effective March 2, 1993, and until further action by this Board of Directors, the Chief Financial Officer (CFO) of the Company or his successor be, and hereby is, authorized and empowered to provide necessary documents which show that the Company can and does meet the financial test for self-bonding and to otherwise provide for financial assurance to the New Jersey Department of Environmental Protection and Energy (NJDEPE) for the environmental cleanup of any contamination that may exist on, at, or emanate from the Company's plants in New Jersey. The financial assurance referenced here shall be in the form of self-bonding as provided for in New Jersey Administrative Code Section 7:26B-6.5, and as such, the CFO or his successor shall have continuing authority to make payments from the Company to NJDEPE (the Department) if the Department determines that the Company, as owner or operator, has failed to perform its obligations under the referenced code chapter.

> BE IT FURTHER RESOLVED, that effective March 2, 1993, and until further action by this Board of Directors, the Chief Financial Officer (CFO) of the Company or his successor be, and hereby is, authorized and empowered to provide necessary documents to the United States Environmental Protection Agency

(EPA), or the successor Federal department to the EPA, which show that the Company can and does meet the financial test to demonstrate financial assurance, as specified in Subpart H of 40 CFR Parts 264 and 265. The financial assurance referenced here includes, but is not limited to, a financial test to demonstrate financial responsibility for liability coverage, closure, or postclosure care, or any combination of these three; it also includes a "corporate guarantee" as that term is used in 40 CFR Parts 264 and 265, Subpart H.

BE IT FURTHER RESCLVED, that effective March 2, 1993, and until further action by this Board of Directors, the Chief Financial Officer (CFO) is authorized and empowered to provide necessary documents to any State or Federal environmental agency or department which show that the Company can and does meet the financial tests for self-bonding, cleanup, liability coverage, closure, and post-closure care. The Chief Financial Officer may fulfill the requirements for financial assurance that are established by any State or Federal environmental agency or department through the use of more than one financial assurance mechanism per facility, or the use of one financial assurance mechanism for multiple facilities.

In witness whereof I have hereunto placed my hand and the seal of the corporation on

this 23rd day of March, 1994.

auch S. Mallerak

Assistant Secretary

Telephone 212 596 7000 Facsimile 212 596 5910

114227

Price Waterhouse



AUDITOR'S CONFIRMATION OF LETTER BY CHIEF FINANCIAL OFFICER OF CORPORATE PARENT

March 25, 1994

Mr. Michael F. Mee Senior Vice President and Chief Financial Officer Bristol-Myers Squibb Company 345 Park Avenue New York, New York 10154

Dear Mr. Mee:

Bristol-Myers Squibb Company has prepared documents to demonstrate its financial responsibility under the Nuclear Regulatory Commission's financial assurance regulations, 10 CFR Part 30. This letter is furnished to you to assist the licensee, Bristol-Myers Squibb Pharmaceutical Institute, an operating division of Bristol-Myers Squibb Company (License No. 06-27843-02), in complying with these regulations and should not be used for other purposes.

At your request, with respect to the attached letter entitled "Letter From Chief Financial Officer of Corporate Parent, Including Cost Estimates and Data From Audited Financial Statements" dated March 25, 1994, we have compared the numbers shown in each of the items marked with an asterisk with the numbers contained in the Company's independently audited consolidated financial statements, or underlying records, for the fiscal year ended December 31, 1993, which we have audited in accordance with generally accepted auditing standards and have issued our report thereon dated January 20, 1994.

Because the above procedure does not constitute an audit made in accordance with generally accepted auditing standards, we do not express an opinion on any of the items contained in the attached letter. However, in performing the procedure referred to above, no matters came to our attention that caused us to believe that the amounts referred to above should be adjusted. This report relates only to the amounts referred to above and does not extend to the Company's consolidated financial statements, taken as a whole.

Very truly yours,

Price Waterhuse

Attachment: - As stated

Bristol-Myers Squibb Company 1993 Annual Report Leadership in a Changing Health Care Marketplace



Financial Highlights

Bristol-Myers Squibb Company

(dollars in millions, except per share amounts)	1993		1992
Net Sales	\$ 11,413	S	11,156
Special Charge ¹⁰¹	\$ 500		
Provision for Restructuring ^(b)		\$	890
Earnings from Continuing Operations Before Income Taxes	\$ 2,571	S	1,987
Earnings from Continuing Operations.	\$ 1,959	\$	1,538
Net Earnings ¹⁰	\$ 1,959	\$	1,962
Per Common Share: Continuing operations ^(e) Net earnings ^(d)	\$ 3.80 3.80	S	2.97 3.79
Dividends per Common Share	\$ 2.88	S	2,76
Working Capital Capital Expenditures	\$ 3,505 580	S	3,321 654
Number of Employees	49,500 158,239		52,600 137,722

(a) The after-tax effect of the special charge was \$310 million, or \$.60 per share.

the after-tax effect of the provision for restructuring was \$570 million, or \$1.10 per share.

10 In 1993, excluding the special charge, earnings from continuing operations were \$2,269

million, or \$4.40 per share.

© In 1992, included income of \$670 million after taxes (\$1.29 per share) from discontinued operations, primarily relating to the gain on sale of The Drackett Company, and a charge of \$246 million after taxes (\$.47 per share) relating to the cumulative effect of adopting a new accounting standard for postretirement benefits.

On the cover:

Prior to her surgeries, in which two Zimmer hip prostheses were used to replace her two hips, Aliki Aleski Du Comb (seen here with her husband and children) was virtually incapacitated by severe osteoarthritis. As a result, she was spending about \$13,000 a year for help with housework and child care. Now Ms. Du Comb has returned to her job as a counselor at The Bournewood Hospital and is also working as a volunteer with other joint replacement patients. She is one of the many patients who return to productive lives as a result of cost-effective health care products from Bristol-Myers Squibb.

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Letter to Stockholders Nineteen ninety-three was a year of both growth and change.

he initiatives we undertook this year signify our active responses to the greatest agent of change during 1993; the accelerated pace of activity in the health care marketplace.

With the challenges posed by a business environment increasingly influenced by large purchasers also comes an important opportunity for growth. Our strengths to meet these challenges are many. Some are described in greater detail in the section on "Leadership in a Changing Health Care Marketplace" that follows this letter.

We are a business whose products enhance and extend life, and therefore a business full of growth opportunities. We have market leadership positions in most of the major categories in which we compete; broad and diversified businesses and product lines around the world; financial strengths matched by only a handful of companies; a strong and highly experienced management team; and innovative products, including 27, representing each of our core businesses, with at least \$100 million in annual sales worldwide. In late 1993, Fortune magazine ranked Bristol-Myers Squibb sixth in the United States in market value added. This measure combines the market value of our stock with the company's debt and then sub-tracts the capital invested in the company. The result shows how much wealth the company has created for its stockholders.

Of course, our greatest strength resides in our employees, people with the experience, knowledge, willingness and ability to change.

In August, our broad and balanced product line helped us win a 5-year agreement with American Healthcare Systems, representing nearly 150,000 beds in the nation's community hospitals. This first companywide purchasing agreement, covering our pharmaceutical, nutritional and medical device products, will significantly expand the purchases of those products by more than 1,000 not-for-profit hospitals around the U.S. Our Corporate Hospital Accounts group, established in 1992, expects to enter similar arrangements with major hospital groups in the coming year.

(continued on page 2)

114227

From the New CEO

n January 1 1994, I succeeded Richard L. Gelb as chief executive officer of Bristol-Myers Squibb. Mr. Gelb will continue as chairman of the board and, I'm happy to say, has agreed to maintain an active management role as well.

I cannot let this milestone pass without reviewing for our stockholders just a few of the extraordinary achievements of my predecessor in the 22 years he has led our company.

Dick Gelb became CEO of what was then Bristol-Myers in January 1972. The 1971 Annual Report, published later the next month, referred to the company's "growing world." The phrase was prophetic, for the hallmark of Dick Gelb's stewardship has been growth of every kind. From the end of 1971 through the end of 1993:

- Sales rose from \$1.1 billion to \$11.4 billion, a growth of 970 percent;
- Net earnings rose from \$76 million to \$2 billion, a growth of 2,484 percent;
- Expenditures on research rose from \$40 million to \$1.1 billion, a growth of 2,720 percent;
- Market value increased from \$1.7 billion to \$29.8 billion, a growth of 1,618 percent;
- Per share dividends grew each year for 22 years, providing a compound annual return to stockholders of 14.4 percent.

In 1971, pharmaceuticals accounted for about a quarter of company sales; we had virtually no sales of medical devices. In 1993, pharmaceuticals and medical devices accounted for more than 70 percent of sales. Our market positions in our other major businesses - nutritionals and consumer products - also are strong. Today, Bristol-Myers Squibb has become the third largest pharmaceutical company in the world and one of the world's largest diversified makers of health care products.

As it has grown, the company has responded to change. We have added and divested businesses, diversified into new fields and expanded into new markets; what in 1971 was a predominately U.S.-centered enterprise today has an active presence on six continents, including ventures in Russia and China.

This is the legacy of Dick Gelb's leadership. With it goes the example he has set not only as an executive with vision and dedication of the very highest order but equally as a colleague and friend whose personal qualities inspire the admiration and affection of all who know him. I am confident that with his counsel and the help of the most valuable of the many resources that he has passed on – the abilities and commitment of our thousands of employees – Bristol-Myers Squibb will reach new levels of growth and scale new heights of achievement in the years ahead.

Charles A. Reimbold)

Charles A. Heimbold, Jr. President and Chief Executive Officer

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Change for American industry – and particularly for the pharmaceutical industry – has become a constant. Periods of intense change come in waves. Those able to catch the right parts of the waves can use them to propel a company forward with tremendous power. We are well positioned to ride these new waves. We understand the competitive forces, marketplace changes and technological revolutions that have dictated the need and the ability to run large global enterprises like our own with fewer resources.

As a result, during 1993, through effective restructuring, we intensified our efforts to reposition the company strategically to



Richard L. Gelb, Chairman of the Board, seated, and Charles A. Heimbold, Jr., President and Chief Executive Officer.

take fullest advantage of the changes already in place and those still to come.

during 1993 and continues to be a critical objective in 1994. In early January 1994, we announced a plan that over the next 2 years will reduce our worldwide work force by approximately 10 percent, or 5,000 employees, in order to align our businesses with the changes taking place in the global marketplace and to improve our overall competitiveness. The restructuring will affect all four core businesses as well as headquarters staff. The Pharmaceutical Group will undergo an important reorganization to meet the needs of the health care marketplace. The U.S. sales force now will be organized into 12 regional business units supported by a strengthened managed care operation and a marketing staff with a structure reflecting the changing status of health care buyers in the U.S. The Group's European operations also will be reorganized to eliminate a layer of management, so that 11 business units now will report directly to a European headquarters. As a result, the Pharmaceutical Group will be reduced by approximately 3,000 employees worldwide. Our aim

currently under way.

Part of this work force reduction is being achieved through a special voluntary retirement program offered in the U.S. in late 1993. We also are continuing to consolidate our facilities while making our production plants even more efficient to compete effectively in an extremely price-conscious environment. And we have instituted a number of innovative productivity and cost-reduction programs in all four of our businesses.

We also have taken measures to ensure that our cash flow remains strong, by taking a historically strong cash flow situation and seeking to improve it dramatically, focusing on improved working capital and asset management programs. This effort has translated into \$500 million of incremental cash flow since inception of the program in 1992.

We have done all this while also looking at our longer term objectives. We know that the various categories in which we compete are in a state of flux. Therefore, companies that will be successful will have to look beyond what they know today to an uncertain tomorrow. By reducing layers of management and empowering our employees to act creatively and productively, we are preparing for that tomorrow.

What kind of company do we expect to become? We must continue to instill the values that have made our company so successful. We will emphasize candor, communicating effectively and openly with our employees, stockholders, customers and others. We will emphasize teamwork, while reducing less critical efforts and layers of management, so employees will feel empowered to work across divisional and functional lines. We will place increased emphasis on prudent risk-taking, so that employees know that rewards will come in facing, and not shrinking from, the challenges of a constantly shifting marketplace. We will do all that we can to further enhance our customer focus. And we will place great emphasis on productivity and cost-reduction programs while also pursuing growth.

We expect to continue to do whatever it takes to create value for all our stakeholders. Our goal will remain what it always has been: to be the preeminent diversified health and personal care company in the world.

Health Care Reform

A major challenge we have had to face in 1993, and will continue to face in the coming year, is U.S. health care reform.

A Health Care Policy Task Force, representing many parts of the company, has been instrumental in developing an executive speakers program to present our point of view about various reform proposals to community groups, legislators and the media. Our Grassroots Program has seen increasing participation by our employees, retirees and stockholders in communicating concerns about reform directly to members of Congress.

We wrote extensively about health care reform in last year's Letter to Stockholders, in our quarterly reports and in a special mailing that came with the 1992 Annual Report. The concerns we have about reform have not changed substantially.

What has changed is that the debate about various possibilities has given way to discussions about an Administration legislative proposal that numbers over 1,300 pages and specifies exactly how our health care system should operate.

We should state at the outset our firm belief that the U.S. has the best and most advanced health care system in the world. It is exceptional in many respects and nothing should be done to reduce the high quality of patient care in an effort to diminish costs. At the same time, we recognize there are parts of the system that need fixing. All Americans should have access to a comprehensive set of health care benefits. These benefits should be portable and should not be denied because of a person's pre-existing conditions or present health status. And we believe a community rating system would foster better quality care for all.

Several proposals, including the Administration's, now are being considered in Congress. Others may yet surface. Our role as a responsible corporate citizen is to participate fully in this debctenot only to defend ourselves against unfair accusations and damaging proposals that could diminish quality health care in this country, but also to help enhance the quality of that care in the future.

In that effort, it is important to identify some serious flaws in the Administration's proposal.

 The single biggest flaw is an apparent lack of trust by the Administration in the marketplace to bring about many of the reforms required. Instead, the government seeks to create a new, powerful, unwieldy and costly bureaucracy to control our complex health care system.

 The Administration's proposal would create de facto price controls. While there is no mention of price controls as such in the plan, there are, in fact, many price controls in disguise.

The plan would set initial targets for the premiums charged by health plans and then limit the annual rate of increase in those premiums. These global controls would force health plans to limit the prices of all those who supply goods and services to those plans, including pharmaceuticals. The inevitable result would be a shortage of goods and services, and, ultimately, a diminution in quality health care.

- The plan would create an Advisory Council on Breakthrough Drugs to scrutinize the prices of new drugs to be introduced. New drugs considered by the bureaucracy to be "inappropriately" priced could be excluded by the Secretary of Health and Human Services from coverage by Medicare, a serious consequence for the elderly.

Such controls are unnecessary and would harm the future of health care delivery in the U.S. While pharmaceutical price increases in the 1980s exceeded the general rate of inflation, the cumulative Consumer Price Index (CPI) for prescription drugs during the past 30 years lagged behind the general CPI for all goods and services.

More recently, the growth of managed care organizations and state and federal government-mandated rebates has proven very effective in slowing the rate of pharmaceutical price increases. The CPI for pharmaceuticals in the U.S. increased only 3.3 percent during 1993 while the general rate of inflation was 2.7 percent. And at Bristol-Myers Squibb, the net average price increases on pharmaceuticals in the U.S. amounted to less than 2 percent for the year.

It is true that, in the past, prices for some pharmaceuticals have been higher in the U.S. than in many other countries, primarily as a result of foreign government price controls and exchange rate fluctuations. However, economic incentives available in the U.S. not only have provided patients around the world with major therapeutic innovations, but also have contributed to a positive U.S. trade balance, created thousands of high-quality jobs and made the U.S. the global leader in pharmaceutical research and development. Other industrialized nations have begun to recognize the many benefits of such research expenditures. For example, a recent draft of the European Commission's industrial policy for the pharmaceutical industry urges member countries to pull back on pharmaceutical price regulation. At the same time, the increasingly competitive nature of the U.S. marketplace already has caused recent introductions of new pharmaceuticals in the U.S. to be at or below prices in many international markets.

We all know the risk in creating new drugs is great. Only 1 in 5,000 compounds synthesized in the laboratory makes it to the marketplace. It costs an average of \$359 million to develop a new drug and can take up to 12 years to reach the marketplace. Few in business would be willing to take such considerable risks on the most risky – and perhaps the most important – of products if the possibility of a fair return on their investments became increasingly uncertain and subject to the whims of a federal bureaucracy.

This is particularly troublesome in the area of biotechnology, where some of the greatest opportunities may exist for breakthroughs against dreaded diseases like cancer, AIDS and Alzheimer's. Biotechnology companies rely largely on venture capitalists to fund as yet unproven therapies. Much of that funding – and ther, by much of the hope for our future health and that of our children and grandchildren – certainly will be diminished with such regulatory oversights and constraints.

B ristol-Myers Squibb is committed to innovative research, including leading-edge biotechnology research, spending \$1.1 billion on research and development in 1993. Such expenditures have grown at a compound annual rate of 14 percent over the past 10 years. Marketplace realities are already putting great pressure on the rate of that growth. And while our commitment to research and development remains firm because research is the lifeblood of any pharmaceutical company, even fewer resources will be available for breakthrough drug development should many of the Administration's proposals become law. Any threat of price controls will necessarily affect decision-making about what type oi research to undertake. The riskiest research certainly will involve new approaches, using genetic engineering and biotechnology, that offer great promise. Price controls threaten to temper investment in these potentially most worthwhile efforts.

Over the past 2 years since the beginning of the health care reform debate – and the accompanying threat of price controls – pharmaceutical and biotechnology companies have lost over \$100 billion in market value. The public policy implications of any threat to investment in pharmaceutical research are serious.

A recent example of the cost, length and riskiness of the pharmaceutical research and development process can be found in one of our own compounds - BR96/doxorubicin conjugate, a promising anti-cancer agent that uses the BR96 monoclonal antibody obtained through genetic engineering to more precisely target doxorubicin, an anti-cancer drug, to tumor cells. While the program was first initiated in 1985, BR96/doxorubicin conjugate entered preliminary clinical trials in humans in late 1993 – 8 years later. And while considerable sums already were invested during those years in developing the conjugate, we will be investing an additional S40 million just to build a pilot manufacturing facility that, in a year of round-the-clock operations, will produce 15 kilograms of this potentially breakthrough therapy. All this before we really know if this agent, or any other such new compound, will work. And all this before we realize any return on our investment.

Given these realities, the government cannot continue to go back to the pharmaceutical industry for more and more money to make up shortfalls in other programs without further reducing our ability to compete in a global market and to invest in important new therapies. According to a Price Waterhouse study, recently enacted legislation will impose an estimated \$14.5 billion of costs on the pharmaceutical industry over the next 5 years. The average annual cost of this legislation – \$2.9 billion per year – represents over 30 percent of the industry's 1992 after-tax profits.

These measures include rebates on sales to Medicaid programs;

price controls on prescription drug sales to the Department of Veterans Affairs and Department of Defense; FDA user fees; and the Omnibus Budget Reconciliation Act of 1993, which changed the tax law in four respects, including a reduction by 1998 of 60 percent in the tax incentives to companies making capital investments in Puerto Rico under Section 936 of the tax code. These investments by companies such as our own have produced high-quality. good-paying jobs for the people of Puerto Rico. And now, in the Administration's health care legislation, the government has proposed an additional burden, that research-based pharmaceutical companies rebate 17 percent or more of all their future Medicare sales to the government. The pharmaceutical industry was not lightly taxed before these initiatives. According to the General Accounting Office, the pharmaceutical industry's effective tax rate had been very close to the average for all U.S. industries.

Our industry cannot absorb additional tax burdens without putting it, and the important work that it must accomplish, in serious jeopardy. We believe that once policy makers understand the implications of ell these proposals and the realities of the current marketplace, they will be tess likely to impose extraordinary and unreasonable financial burdens and government controls.

It is certain that no matter what the government does, a growing population of people over 65 will increasingly require greater expenditures for health care, particularly as the baby boomers begin to reach retirement age after the year 2000. They will require important new therapies for diseases of aging, like cancer, cardiovascular disease and Alzheimer's. We intend to do all we can to create therapies that meet these critical human needs.

Finally, we should appreciate that, despite the Administration's rhetoric, the portion of the national health care bill spent on pharmaceuticals - about 7 percent - is the most cost-effective part of that health care expenditure. While health care costs have risen dramatically as a percentage of Gross Domestic Product (GDP) over the past 2 decades, the percentage of GDP attributable to pharmaceuticals has remained constant-about 1 percent-a further indication of the productivity and cost-effectiveness of our products.

When managed properly, expenditures for pharmaceuticals have the potential to have a significant and beneficial effect on the remaining 93 percent of health care costs. Therefore, we have intensified our commitment to increase the quality and volume of research on the outcomes of using our health care products. We intend to demonstrate that appropriate pharmaceutical usage can benefit the entire health care system.

Nowhere is this more apparent than in a study published in * wember 1993 in The New England Journal of Medicine citing a new use for Capoten, our ACE inhibitor widely used for the treatment of hypertension and heart failure. According to the study, Capoten was found to significantly reduce the risk of death and the need for dialysis and kidney transplantation in Type I diabetic patients with diabetic nephropathy (kidney disease caused by diabetes). The costs of treating advanced kidney disease are staggering. in the U.S. alone amounting to about \$7.2 billion a year, most of it paid by taxpayer-funded federal programs. The annual cost for dialysis is \$30,000-\$40,000 while the cost of a kidney transplant is about \$56,000. A preliminary cost-benefit analysis of the study data indicated that Capoten could reduce such expenditures by decreasing the progression of renal disease requiring these it reventions. In early 1994, the FDA cleared Cape on for marketing for the treatment of diabetic nephropathy in patients with Type I insulin-dependent diabetes mellitus and retinopathy (diabetic eye disease).

Year in Review

Changes in the marketplace - both in the U.S. and overseas - have had a major impact on our businesses during 1993.

For the year, company sales increased 2 percent to \$11,412,675,000, compared to \$11,155,879,000 in 1992. Excluding the negative effect of exchange rate fluctuations, sales increased 5 percent. Domestic sales increased 4 percent while international sales remained at prior year levels. Exchange rate fluctuations had a negative effect on international sales of 5 percent for the year.

The company decided to establish a reserve for potential liabilities and related expenses in connection with breast implant product liability claims. As a result, in the fourth quarter of 1993, Bristol-Myers Squibb recorded a special charge of \$500 million before taxes (\$310 million after taxes, or \$.60 a share). This charge consists of \$1.5 billion for potential liabilities and expenses related to those claims, offset by \$1 billion of expected insurance proceeds. Although the company is currently engaged in coverage litigation with certain of its insurers, such expected insurance proceeds represent the amount of insurance that the company considers appropriate to record as recoverable at this time. We believe that ultimately we will obtain substantial additional amounts of insurance proceeds.

Excluding the 1993 special charge and a 1992 restructuring charge, earnings from continuing operations after taxes increased 8 percent to \$2,269,128,000 and \$4.40 per share. Including these charges, earnings from continuing operations after taxes were \$1,959,128,000, or \$3.80 per share, in 1993 and \$1,537,853,000, or \$2.97 per share, in 1992

In 1993, dividends per common share were \$2.88, a 4 percent increase over 1992. In December, the company announced an additional increase of 1.4 percent, with a 1994 indicated annual payment of \$2.92. With this payment, Bristol-Myers Squibb dividends will have increased at a compound annual growth rate of 8 percent over the past 5 years and 15 percent over the past 10 years.

harmaceutical sales grew 3 percent for the year, as the company's newer products, including Prevachol, a cholesterollowering drug, TAXOL (paclitaxel), an anti-cancer drug, Cefzil, an oral cephalosporin antibiotic, VIDEX, an anti-AIDS medication, and Monopril, a second generation ACE inhibitor, all performed well.

In December, an FDA advisory committee unanimously recommended approval of TAXOL for treating metastatic breast cancer after first-line chemotherapy. TAXOL also received clearance for marketing in a number of countries in Europe, Latin America, Asia, Australia and Africa during the year. We currently are awaiting FDA approval to begin manufacturing TAXOL with a semisynthetic process that would allow us to use only renewable resources for making TAXOL by 1995.

VIDEX was launched in Italy and a number of other countries during the year. We received FDA approval to market Megace Oral Suspension for the treatment of anorexia, cachexia or an unexplained significant weight loss in AIDS patients. We continue to work on developing other new therapeutics against AIDS, and in late December submitted a New Drug Application to the FT A for Zerit (d4T), our third AIDS medication. And we hope to begin clinical testing of a fourth AIDS drug, a protease inhibitor, by early 1995, Zerit already has been distributed by us, without charge, to more than 10,000 patients under the FDA's Parallel Track Program. allowing its use in patients for whom no other therapies are available

As indicated on page 12, we have had encouraging results in pre-

clinical trials with a number of genetically engineered compounds, including BR96/doxorubicin conjugate, a novel anti-cancer agent that entered early human trials in late 1993, and CTLA-4 Ig, to aid transplant patients.

During the year, an FDA advisory committee recommended approval of *SERZONE* (nefazodone), an antidepressant. We expect an approval shortly. It also was cleared for marketing in the U.K. as *Dutonin*. In 1993, we received marketing approval for *Doronex*, a vitamin D₃ analogue indicated for moderate psoriasis, in the U.S.; and for *Maxipime* (cefepime), an injectable cephalosporin antibiotic awaiting approval in the U.S., in France as *Axepim*, and in Sweden.

We also received approval in the U.S. to market *Capoten* for a novel and expanded use following heart attack in patients with left ventricular dysfunction to improve survival and reduce hospitalizations for heart failure.

A crowded ACE inhibitor market in the U.S. and new government price controls in Europe, particularly in Germany and Italy, led to declines in total sales of *Capoten*, our leading product. However, we expect that physicians and government agencies will begin to better appreciate *Capoten*'s expanded possibilities as the results of the diabetic nephropathy and SAVE studies become more widely known. *P. avachol* continued to gain wide acceptance around the world as the lipid-lowering market continues to expand. *Monopril* has done particularly well in Italy.

We have undertaken a number of cost-reduction programs in our European and Intercontinental businesses to deal with challenges posed by government authorities and to move our sales forces closer to customer needs. While overall European pharmaceutical

Jume grew slowly, we saw significant growth of our businesses in Latin America and Asia. Our biggest growth opportunity is in China, where our product line is currently limited, with plans to introduce our full line of products in the next few years. We already have one of the largest pharmaceutical sales forces in that country, and this year announced a major expansion of our facilities.

Several strategic alliances in the cardiovascular and anti-cancer fields are described on page 17, and should help us deal more effectively and efficiently with new customers and research opportunities in the years ahead. During the year, we also determined that opportunities exist for developing therapies in two additional areas: Type II diabetes mellitus and immunologic diseases. Therefore, we have begun research programs in those areas.

n the medical devices area, sales for the year increased 2 percent, with strong volume growth for ostomy, wound care, arthroscopy equipment, and knee replacement and fracture management product sales in both the U.S. and Europe. Linvatec's broad line of *Concept* arthroscopy products continued to gain global market share.

ConvaTec experienced balanced growth across its product lines and geographic regions during the year. Especially notable was the introduction of *Active Life Flushaway*, a one-piece, closed-end flushable pouch that offers an improved quality of life for patients with ostomies. The continued growth of the *DuoDERM* wound care business indicates an important ongoing opportunity for ConvaTec.

We have taken a number of steps during 1993 to grow our Zimmer hip and knee replacement businesses with the introduction and planned launches of a number of new products. The *Trilogy* Acetabular System, introduced during the year, promises to reduce wear in total hip replacements with new options for improving flexibility. We also are planning lower-cost options in our hip replacement products for surgeons and hospitals to respond to an increasingly cost-conscious market. Zimmer also introduced *Collagraft* Bone Graft Matrix, an alternative to using bone graft materials from donor bone stock or harvested from the patient. It combines collagen and ce. mic granules for use as graft materials in certain fractures and bone defects.

Both ConvaTec and Zimmer see China as a major opportunity for growth. In 1993, ConvaTec launched sales and marketing operations in China.

Also during the year, we announced our intention to sell both our Weck medical products and Xomed-Treace subsidiaries, concluding that neither fit within the company's long-term Health Care Group strategies. In December, we concluded the sale of certain assets of Edward Weck Incorporated to Teleflex.

When the set of the s

Gerber Soy Formula and adult nutritionals grew well in the U.S. Overseas volume growth continues to be fueled by a full range of starter and follow-on formulas, consumer nutritionals and hospitaloriented enteral products, primarily in Asia's expanding markets

During the year, Mead Johnson Nutritionals introduced Next Step follow-on formula in Canada, and Lactofree, an entirely new category of infant formula, in the U.S., providing the benefits of milk protein while avoiding the problem of lactose intolerance experienced by some newborns. This type of product was successfully launched in Canada in 1991 and in several Asian markets during 1992.

onsumer product sales declined 1 percent when compared to 1992, largely as the result of continued competitive pressures in the U.S. However, there are a number of promising areas of growth in the months abcad. The Clairol "makeover" program, begun in 1992 to unify and enhance the Clairol image on a global basis, had a positive impact on 1993 haircolor sales and continues to expand internationally. New advertising was launched and many markets introduced Clairol packaging with a consistent look and updated imagery for products including *Nice 'n Easy. Ultress* and *Loving Care*. The *Clairol Color Choice System*, an innovative retail management and education concept, was introduced in 1993 and is being expanded in thousands of retail outlets in the U.S.

Glints Conditioning Color Enhancer, a haircoloring product aimed at new and younger users, has done exceptionally well during its first year, as has *Lasting Color by Loving Care*, launched in late 1992. The *Logics* professional hair care product line also had strong sales both in the U.S. and overseas.

The company introduced *Ban Clear* A.P. Anti-perspirant Deodorant during 1993 in the U.S., Canada and Mexico. In addition, the *Sea Breeze* line of skin care products and *Theragran* vitamin products did well during 1993 around the world.

In June, an FDA advisory committee recognized that caffeine, found in *Excedrin*, enhances pain relief when used in combination with analgesics such as aspirin and acetaminophen with aspirin.

Through our acquisition of Laboratori Guieu in Italy in January 1993, and other investments, we continue to make important inroads into the European nonprescription pharmaceutical marketplace, which we expect will grow significantly in the years ahead as government authorities seek additional ways to reduce national health care expenditures.

Bufferin remains the leading inter ial analgesic in Japan. A line extension, Bufferin Motion Sickness Remedy, was launched in 1993. As in other parts of our business, our Consumer Products Group continued to focus on productivity, completing the consolidation of our customer service group in the U.S. and reducing overhead structures in Europe.

In December, we sold the Appliance Division of Clairol to Remington Products Company. Although the Appliance Division has played a role in the overall performance of Clairol, its divestiture will enable Clairol to focus its resources on the haircolor and hair care markets, where it is best positioned to achieve long-term growth.

Management Changes

In addition to the election of a new chief executive officer, a number of other key management changes occurred since publication of our last annual report.

At Corporate Staff, Michael E. Autera, executive vice president, was appointed head of the Nutritional and Health Care businesses. Until a successor is named, Mr. Autera will continue as chief financial officer. Stephen K. Chesnoff was appointed vice president and associate general counsel, trademarks & copyrights. Gail J. Cornell became vice president, employee relations. Raymond C. Egan was appointed to the new post of senior vice president, health care policy and new business development. William F. Flatley was named senior vice president with a special focus on business strategy, productivity initiatives and coordinating the restructuring efforts at Corporate Staff. Dominic M. Mezzapelle was named vice president and associate general counsel, Pharmaceutical Research Institute and patents. James S. Posner was named vice president. Office of Corporate Conduct, John L. Skule was named vice president, public affairs. Kenneth A. Sloan was named vice president, compensation and human resources development. Richard L. Stern was appointed vice president and associate general counsel, litigation. Patrick F. Crossman, vice president, external affairs, retired after nearly 29 years of dedicated service, during which he played a vital role in developing the corporate contributions function and guiding our social responsibility and corporate citizenship efforts through the Bristol-Myers Squibb Foundation.

In the Pharmaceutical Group, Kenneth E. Weg was named president, Bristol-Myers Squibb Pharmaceutical Group, succeeding Wayne A. Davidson, who retired. Hiroji Arai was named president, Pharmaceuticals, Japan. Samuel L. Barker, Ph.D., president, U.S. Pharmaceuticals, was given expanded responsibilities including managed health care, national accounts and government operations. Andrew G. Bodnar, M.D., was appointed president, Oncology, Diagnostics and Worldwide Strategic Business Development. Samuel A. Hamad, president, Intercontinental, received expanded duties including responsibility for Latin America and Japan. Michael J. Howerton was named vice president, corporate development. Michael D. Loberg, Ph.D., was appointed senior vice president, U.S. Pharmaceuticals. Christine Poon was appointed president and general manager, Canada. Dennis R. Raney was named senior vice president, finance. Rolf-Dieter Rebhuhn became president, Central Europe, Joachim H. von Roy was named president, Europe, James L. Tyree was appointed vice president, worldwide business development.

In the Consumer Products Group, Marvin H. Koslow retired as president after nearly 28 years of outstanding contributions to our company. As our headquarters senior marketing executive, Mr. Koslow was a pioneer in establishing modern advertising agency/client relationships and helped position us for future growth and increased profitability. His leadership in recent years helped craft a global strategy for our key consumer product areas. In addition, Stephen E. Bear was named executive vice president, Consumer Products Group, Edward T. Crews was appointed president, Latin America. Peter R. Dolan was promoted to president, Bristol-Myers Products. Ruth B. Pierce became vice president, marketing, Clairol. Ian I. Stuart was named president, Japan, and Steven L. Wile was appointed president, Asia/Australasia.

In the Bealth Care Group. Patrice Froidure was named president, Wound and Skin Care, ConvaTec. F. Joseph Halcomb, M.D., became president, Hall Surgical. George P. Kempsell was named president, Linvatec. Guy L. Mayer became president, Prosthetic Implant Division, Zimmer. Kara J. McClure was appointed senior vice president, human resources, Zimmer. Shoichiro Meguro was appointed president, Zimmer, Japan. John K. Moorse was appointed senior vice president, Zimmer, and president, Europe, Middle East and Africa. Jack D. Shinneman was named president, Zimmer International. Jack M. Wolinetz was named president, Chronic Care, ConvaTec. David L. Zabor was named senior vice president, finance, Zimmer.

In the Mead Johnson Nutritional Group, David A. Cook, Ph.D., was appointed vice president, Mead Johnson Research Center. Wilfred G. McCabe, Jr., was named vice president, Mead Johnson Pediatrics, U.S.

Two members of the Board of Directors, Wayne A. Davidson and Richard M. Furlaud, retired from the Board at the 1993 Annual Meeting in May. After 35 years of distinguished service, Mr. Davidson will be remembered as a fair and compassionate executive as well as a leader with an in-depth understanding of our businesses. Mr. Furlaud was CEO of Squibb Corporation for 21 years and became president of Bristol-Myers Squibb following the merger. He retired from that position in 1991. Mr. Furlaud has been an important leader in our industry and was critical to the success of the Bristol-Myers Squibb merger. We wish to congratulate Messrs. Davidson and Furlaud on their many accomplishments and to thank them for their many years of devoted service.

company, ultimately, is only as strong as its people, and Bristol-Myers Squibb Company has been fortunate over its 100-plus-year history to have had some of the best, most highly motivated people in the world of business.

With the voluntary retirement program and the significant restructuring of our organization during 1993 and continuing into 1994, we are saying goodbye to many of those fine people. As we said, change has become a constant in our business, almost a way of life. However, we know that through it all, the employees of our company have made us great and it is those employees – those who have left us their legacy of achievement and those who remain – who will be responsible for the successes we expect to achieve in the years ahead.

We want to express our sincere thanks to all of them – and to our stockholders and customers – for their support, their hard work and their good will.

Tichard T. J.M.

Richard L. Gelb Chairman of the Board

Charles A. Kermoold).

Charles A. Heimbold, Jr. V President and Chief Executive Officer

February 8, 1994

Bristol-Myers Squibb: Leadership in a Changing Health Care Marketplace



Health care markets are evolving rapidly in the United States and around the globe. We are witnessing a revolution, a sea change, in the way medicine is practiced and delivered. At times like these, the companies that succeed are those that

possess the right combination of strengths for leadership in the new environment.

Bristol-Myers Squibb is such a company. On the pages that follow, we focus on a number of the qualities that make Bristol-Myers Squibb a leader today – and that will keep it a

leader in the future – as seen through the eyes of the company's most important resource and its greatest strength, its employees.

Scientists at the Bristol-Myers Squibb Pharmocentical Research Institute in Seattle have developed a new compound known as CTL 4-4 Ig that may prove useful in modulating the immune system to fight disease. Company researchers are investigating whether CTLA-4 Ig could be used to prevent the immune system from rejecting transplanted organs or to stop it from attacking the body's own tissues in autoimmune diseases. The compound will enter preliminary clinical trials in late 1994.

Market Leadership Through Broad and Balanced Product Lines

Bristol-Myers Squibb plays a leading role in four different core businesses – pharmaceuticals, consumer products, nutritionals and medical devices – and manufactures a great variety of products, including 27 that each generate annual global sales of \$100 million or more. Thanks to its strong product lineup, the company has carved out leadership positions in key markets across its entire range of businesses.

> hough 57 percent of the company's revenue comes from pharmaceuticals, Bristol-Myers Squibb is also a leading maker of medical devices, nutritionals and consumer products – freeing it from overdependence on any single marketplace. By the end of 1992, the company had 24 products with annual sales in excess of \$100 million, including 13 pharmaceuticals, five consumer products, four medical devices and two nutritional products. In 1993, that number grew to 27 with the addition of three pharmaceutical products: *TAXOL* (paclitaxel), an anti-cancer drug; *Monopril*, a once-a-day medication for high blood pressure; and *Cefzil*, an oral cephalosporin antibiotic – all three of which were launched only within the last several years.

Pharmaceuticals:

Number 2 U.S.; Number 3 Worldwide Oncology: Number 1 U.S.; Number 1 Worldwide Cardiovasculars: Number 3 U.S.; Number 2 Worldwide Anti-Infectives: Number 4 U.S.;

Number 5 Worldwide Diagnostics: Number 2 U.S.

Dermatology: Number 4 U.S.; Number 6 Worldwide

Central Nervous System. Number 8 U.S. Number 8 Worldwide

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Consumer Products:

Haircolorings: Number 1 U.S.; Number 2 Worldwide Analgesics: Number 3 U.S. Deodorants: Number 5 U.S. Vitamins: Number 2 U.S.

Medical Devices:

Hip Replacements: Number 1 U.S.; Number 1 Worldwide

Knee Replacements: Number 1 U.S.; Number 1 Worldwide

Ostomy Products: Number 1 U.S.: Number 1 Worldwide

Arthroscopy Supplies: Number 1 U.S.; Number 3 Worldwide

Powered Surgical Instruments: Number 1 U.S.: Number 1 Worldwide Modern Wound Care: Number 1 U.S. Number 1 Worldwide

Nutritionals:

Number 2 Wo dwide

Infani Formulas: Number 2 U.S.; Number 2 Worldwide Pediatric Vii. mins: Number 1 U.S. Enteral Nutri-mals: Number 2 U.S.;

Rapidly Growing Managed Care Businesses Its breadth of product line, plus a significant managed care sales force, have helped the company build a strong position in this fast-growing, cost-conscious market.

By the end of 1992, over 100 million Americans were enrolled in some form of managed care, including over 41 million covered by classic health maintenance organizations (HMOs), up from 10.8 million in 1983. "Even without the impetus of health care reform, managed care would continue to grow," says Michael F. Iafolla, vice president for Managed Care and National Accounts. "We are growing with it." The company already has contracts covering aspects of care for up to 75 percent of patients enrolled in HMOs, and is expanding that share.

"In the past, our marketing has been brand-oriented," says Mr. Iafolla. "N-w we are developing sales teams that concentrate on a particular type of customer, such as HMOs, group purchasing organizations or mail order pharmacies." The company's diverse line of products gives it the leverage to cement relationships with this growing number of larger purchasers.

In August 1993, for example, Bristol-Myers Squibb announced a five-year agreement with American Healthcare Systems (AMHS), the

nation's largest alliance of not-for-profit hospitals. The agreer wit makes Bristol-Myers Squibb a key cor state partner for AMHS' over 1,000 member hospitals.

And in September, Bristol-Myers Squibb created a joint venture - Bristol-Myers/ Oncology Therapeutics Network - with Axion Pharmaceuticals, a leading distributor to the rapidly expanding office-based chemotherapy market. Through the Network, Bristol-Myers Squibb can offer the lowest list prices on its anti-cancer products combined with an expanded array of services for oncology offices. "These are win-win scenarios for us and our customers, and they required unprecedented teamwork among our various business units," says William F. Flatley, senior vice president, responsible for the company's Corporate Hospital Accounts group, which was at the lead in the AMHS deal.

Adds Mr. Iafolla: "Many companies look on managed care as a threat. Bristol-Myers Squibb sees it as an opportunity. Managed care organizations need to make sure that

treatment is cost-effective. Prescription drugs account for only seven cents out of every health care dollar, and they generally save costs by preventing hospitalizations or other expensive treatments. So in the long run, the cost-sensitivity of this market will work to our advantage." (For more on the cost-effectiveness of prescription drugs, see page 13.)

As a result of its broad product line, the company is uniquely positioned with its many customers. Examples include retail pharmacies; pharmacy benefit organizations such as Diversified Pharmaceutical Services, Pharmacy Card Systems and Caremark (above); and hos pital purchasing groups, such as American Healthcare Systems, which represents over 1,000 community-based hospitals in the U.S., including Harris Methodist Hospital in Fort Worth Texas (right)



Leadership in Generic Drugs

Bristol-Myers Squibb's Apothecon subsidiary sells some of the most frequently dispensed generics in the country. If Apothecon were a stand-alone company, it would rank seventh among all U.S. pharmaceutical makers in prescriptions filled.



The company's Apoinceon unit is already a leading marketer in the U.S. of off-patent products.

Pothecon sells products that are off patent. Some are products developed especially for the growing generic market. By 1995, over 50 percent of all new prescriptions in the U.S. will be filled using a generic substitute. Growth in the generic industry will be even more dramatic later in the 1990s as over 200 drugs will come off patent by the year 2000. Fortunately, the company is well positioned to deal with this change.

"When Bristol-Myers and Squibb merged in 1989, the multisource divisions of both companies were combined under the Apothecon name to give us a strong position in this market," says Dr. Samuel L. Barker, president of U.S. Pharmaceuticals.

Adds Lee Burg, Apothecon's vice president and general manager: "Apothecon leads the market because we combine competitively priced, quality products with the services our customers need. We call on nonphysician decision makers including independent retail pharmacies, hospital pharmacies, warehousing chain accounts and drug wholesalers. Apothecon's expertise in working as a partner with those customers strengthens our opportunity to succeed in the changing U.S. market."

Apothecon's experience with generics also strengthens the company's approach to may aging brands that are losing patent protection in the next few years. For example, Apothecon was the first to market nadolol, a generic version of the company's *Corgard* (used to treat angina pectoris and high blood pressure).

Global Reach

International sales account for 41 percent of revenues and are growing in volume faster than domestic sales – proof the company can operate profitably under diverse market conditions and regulations.

> **R** ising standards of living worldwide open enormous opportunities for us." says Kenneth E. Weg, president of the Pharmaceutical Group. "As economic standards rise in many parts of the world, so do people's expectations and their demands for better health care treatments and modern pharmaceuticals."

"Nowhere is this more evident than in China, where the national economy grew over 13 percent in 1993 and where sales at the compa-



The company's SASS plant in Shanghai, China, which produces the antibuotic Velosef, the blood pressure medication Capoten and Theragram sitamin mineral products, is midway through a 817 million expansion that will double its capacity and add many new products to its line ny's Sino-American Shanghai Squibb (SASS) co-venture in Shanghai have nearly doubled over the last two years," says Samuel A. Hamad, president, Intercontinental. While many Western companies are now scrambling to enter the Chinese market, SASS has been there for over a decade and is in the middle of a \$17 million expansion that will double its production capacity. "Our long history and reputation for quality, as well as a distribution system that reaches 23 of China's 30 provinces and autonomous regions, will be huge advantages for us," says SASS president Christopher J. Robbins.

Meanwhile, Mead Johnson Nutritionals International will open a \$28 million plant in China's booming southern coastal zone in 1995. And Consumer Products International and the Health Care Group will be bringing a wide range of the company's other products to China soon.

Bristol-Myers Squibb also has been expanding into other burgeoning markets in Asia, Latin America, the newly opened Eastern Europe and the former Soviet Union, while pursuing plans to

grow its positions in the rest of Europe and Japan. This broad international experience gives the company a unique perspective on U.S. health care reform—especially the effort to impose price controls.

"We now operate under price controls just about everywhere except the U.S.," says Jacqueline A. Keith, the Pharmaceutical Group's senior director for policy and administration, "so we have experience with such environments. But we also know how they can affect innovation in our industry."

Innovative Research

Backed by a major commitment to research and development, including leading-edge biotechnology research, with a budget of \$1.1 billion in 1993, Bristol-Myers Squibb scientists are exploring compounds that could transform the treatment of many serious disorders.

nnovation has always driven our industry, but it will be even more important in years to come," says Dr. Leon E. Rosenberg, Pharmaceutical Research Institute (PRI) president. "That's why we are fortunate to have a rich pipeline of 37 compounds under clinical and preclinical development, and a drug discovery effort that contributes five to eight new ones each year." During 1993, new discovery programs were initiated in Type II diabetes mellitus and immunologic diseases.

Bristol-Myers Squibb spends many millions of dollars and allocates a significant portion of its scientific personnel to biotechnology research and development as well. Thanks to this commitment, new biotech products are being developed, including two promising agents. Company researchers are using the latest techniques in structure-based drug design to develop breakthrough compounds. Pictured are two examples of that effort: (below, top picture) The computer model of a new cardiovascular agent designed to inhibit two enzymes, angiotensin converting enzyme (ACE) and neutral endopeptidase (NEP): and (bottom, inset) an X-ray erystallographic study of the binding of BR96 (multicolored arrows and ribbons and yellow balls and sticks) to the antigen (blue balls and sticks) it recognizes on the surface of tumor cells. The first, a monoclonal antibody known as BR96/doxorubicin conjugate that scientists hope may prove useful in combating cancer, reached human trials in November 1993. The second, CTLA-4 Ig, a new kind of immune-system modulator that could help improve the success of organ transplants or lessen the damage from autoimmune diseases, will be tested in humans in 1994. On the cancer front, the company asked the U.S. Food and Drug Administration (FDA) in 1993 to approve the use of *TAXOL* for the treatment of metastatic breast cancer after first-line chemotherapy (the drug is already widely used for advanced ovarian cancer), and is conducting over 100 clinical trials to learn more about the possibilities of *TAXOL*. Also during 1993, the company began clinical trials on a new agent, a thromboxane receptor antagonist, that may add to its broad line of cardiovascular medicines.

Here are a few of the other promising compounds in development. While some have yet to be tested in patients, and thus are still unproved, all hold the potential for reducing human suffering:

•An agent that seems able to improve blood flow to damaged tissues in the heart, potentially an important treatment for people who survive heart attacks;

•A new antidepressant that may take effect faster and help more patients than ones now on the market;

•A systemic anti-fungal agent, pradimicin, that is less toxic than existing drugs.

Good research is enormously expensive. Of every 5,000 compounds tested in the laboratory, only one ever makes it to market—usually after an average of 10 to 12 years of development. And of those that reach the market, only 30 percent ever earn back the \$359 million that was spent on average to create them. As a result, the company's research budget has grown at a compound annual rate of 14 percent a year over the past 10 years.

PR1, Zimmer, ConvaTec and other divisions are now doing a thorough review of all pipeline products to make sure they have the earnings potential to justify continued work. "We can never rest on our oars," says Dr. Rosenberg. "We have to set priorities and focus more than we did before."



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A Sales Force Responding to the Changing Needs of Customers

Today, there are other influences beyond the physician when it comes to pharmaceutical choice, including the hospital formulary, the pharmaceutical benefit manager, the HMO administrator and many others. Bristol-Myers Squibb is establishing strong relationships with all these customers.



The company fields a flexible and responsive sales organization to deal effectively with the growing number of HMOs and other large managed care providers.

o continue to enhance its overall competitiveness and respond to the rapidly changing marketplace, the company announced a major restructuring of its U.S. primary care pharmaceutical sales force and marketing group in early January 1994. "Our new organization will leave us less hierarchical, more flexible and leaner," says Kenneth E. Weg, Pharmaceutical Group president, "an organization where operating decisions will be made closer to our customers."

The company consolidated its five primary care sales forces in the U.S. into one national field organization divided into 12 regional business units. These units will be better able to respond to the needs of the health care marketplace. In addition, the U.S. marketing group was restructured to reflect an enhanced customer orientation. In recognition of the growing importance of the managed care business, including HMOs, hospitals and other health care institutions, the size of the company's own managed care operation, including its sales force and support resources, was expanded.

The medical devices business, too, has been evolving to become more of a service industry. "We now have toll-free phone numbers around the world and answer questions from more than 100,000 customers a year, ranging from doctors and nurses to the patients who are using our ostomy and wound care products," says Joseph G. Solari. Jr., president of ConvaTec. Adds William F. Flatley, senior vice president, "In this environment, companies that are close to their customers will flourish. Those that are not will wither and die."

Cost-Effective Treatments

Pharmaceuticals and other health care products are often the most cost-effective forms of therapy. Bristol-Myers Squibb products are among the best in this area.

> he cost of a drug cannot be measured by price alone. One must also consider its potential to reduce other health care costs—as a recent groundbreaking study of one of the company's principal medications showed.

> The study, published in the November 11, 1993 issue of *The New England Journal of Medicine*, focused on the use of *Capoten* in people with insulin-dependent diabetes complicated by diabetic kidney disease.



Ever since a near-fatal heart attack in 1984. Leo Dumais, of Nashua, New Hampshire pictured here with his family) has taken Bristol-Myers Squibh's Capoten as part of a and medication. While Capoten generally costs roughly \$700 a year. Mr. Dumais has so far avoided other more expensive treatments, including commary artery hypass surgery (average cost. \$40,000 | or balloon \$10,000 or more). More important, he has not developed congestive heart failure talization and additional costs. Indeed, as the 2,231patient Survival And trials showed, Capaten given to patients with left ventricular dysfunction only days following a heart attack significantly improved long term survival and reduced the risk of cardiovascular mortali-Capoten for such patients

These patients need daily insulin injections to control their blood sugar levels. Still, significant numbers go on to develop kidney damage – and of those who do suffer clinically evident kidney damage, most progress to complete kidney failure – end stage renal disease (ESRD) – within 10 to 15 years. Currently, over 210,000 patients are being treated for ESRD in the U.S. alone. The study found that Type I diabetics with clinical evidence of kidney disease can cut their risk of progressing to ESRD or death by 51 percent if they take *Capoten* daily. "For everyone with diabetes, these are striking and important findings. This therapy offers hope for a longer and better quality of life for those suffering from kidney-related complications and promises to become a new standard of care," said American Diabetes Association president Dr. James R. Gavin III, in a statement released by the Association.

Moreover, while *Capoten* therapy can run about \$700 a year, it is a relatively small amount compared with the huge financial burden of kidney failure – which can be treated only by dialysis (cost: \$30,000-\$40,000 a year) or by kidney transplant (cost: about \$56,000 initially, plus \$6,000 a year for care thereafter). In 1990, annual costs for treating ESRD in the U.S. alone were estimated at over \$7 billion. According to an Arthur D. Little study, the use of *Capoten* in all diabetic nephropathy patients

could potentially result in savings in ESRD expenditures. In early 1994, the FDA cleared *Capoten* for treatment of this condition.

"Cost containment in health care requires a global assessment of all costs associated with the management of a patient over the entire course of a disease," says Dr. Sharon Henry, vice president for medical operations, U.S. Pharmaceuticals. "By reducing ancillary, more expensive costs associated with hospitalizations, invasive procedures and potential complications, pharmaceuticals often prove to be extremely cost-effective." Dr. Henry is among those who are working in pharmacoeconomics, an emerging discipline that focuses on the economic impact of drug therapy. For example, Paraplatin, an analogue of Platinol, another Bristol-Myers Squibb cancer drug, is more cost-effective than Platinol because it does not require a hospital stay. In addition, the oral form of the anti-cancer drug VePesid results in an overall cost reduction compared to its injectable form because of savings in hospitalization costs.

Medical devices can be cost savers too. Implanting a Zimmer hip is much less expensive than leaving a patient disabled or, eventually, institutionalized. Not only is money saved – but, importantly, a person's quality of life is enhanced, says Ronald L. Davis, Zimmer president. ConvaTec's ostomy products save money for society by giving patients greater freedom to move about and work normally. Knee repair with Linvatec's arthroscopic instruments can cost up to 50 percent less than conventional open-knee surgery, and gets patients back on their feet months sooner. And *DuoDERM CGF* dressings, although they can cost more than conventional moist gauze dressings, are less expensive treatments for pressure ulcers. Why? Gauze dressings must be changed about three times daily, with resulting higher costs for labor and material. *DuoDERM CGF* dressings only require changing every few days and provide the ideal moist healing environment for chronic wounds. A Continuous Flow of New Products With its ongoing investment in health and personal care product development, the company brings a steady stream of new and improved goods to market each year-including dozens introduced or approved in the last year alone.

During 1993. Bristol-Myers Squibb introduced important new products in each of its core business areas.



During 1993, for example, the company launched *T4XOL* in a number of major markets around the world. It received FDA approval to market *Dovonex*, a novel agent for moderate psoriasis, and an FDA advisory committee recommended approval of *SERZONE* (nefazodone), an antidepressant. *Maxipime* (cefepime), an injectable cephalosporin, and *SERZONE* were approved in international markets under various trademarks.

The Consumer Products Group introduced Ban Clear A.P. Antiperspirant Deodorant in the U.S., Canada and Mexico, the Lasting Color by Loving Care haircoloring line in Europe and Asia, Keri Moisturizing Cream, Brights by Nice 'n Easy and an antioxidant form of Theragran vitamins. New nutritional products included Lactofree in the U.S. and O-Lac overseas, both lactose-free infant formulas, and Next Step follow-on formula in Canada.

Among the new medical devices introduced were Active Life Flushaway ostomy pouches, the LIS8170 diagnostic video system for endoscopic and arthroscopic procedures, Collagraft Bone Graft Matrix, the Trilogy Acetabular System to enhance fixation for total hip replacements, the Marchetti-Vicenzi Intramedullary Nail for fracture fixation, in Europe, and the MGII Total Knee System, also in Europe.

Financial Strengths

Thanks to years of carefully managed growth, the company enjoys one of the soundest balance sheets in the industry– a major plus as acquisitions and strategic collaborations become increasingly important tools for expansion.

Even after paying out 86 billion in dividends to stockholders since 1989 and spending over \$17 billion in its stock purchase program. Bristol-Myers Squibb still ended 1993 with \$2.7 billion in each to invest in and grow its businesses.

- Net Cash Provided by Operating Activities
- Dividends Paid
- M Capital Spending
- Treasury Stock Purchases



ith after-tax earnings of \$2 billion, Bristol-Myers Squibb returns 33 percent a year on stockholders' equity while paying its stockholders a yearly dividend expected to be \$2.92 for 1994. It has raised that common stock dividend for 22 consecutive years. The company ended 1993 with \$2.7 billion in cash and \$3.5 billion in working capital. It is one of only 12 U.S. companies to receive the top AAA rating from both Moody's and Standard & Poor's with a debt to equity ratio of 13 percent. And *Fortune* magazine recently ranked Bristol-Myers Squibb sixth in the U.S. as measured by market value added. Says Michael E. Autera, executive vice president and chief financial officer, "The company is prepared for the changing health care marketplace with an enviable balance sheet, \$6 billion in total stockholders' equity and a strong operating cash flow."
Proven Over-the-Counter Expertise Health authorities worldwide are waking up to the cost-saving

Health authorities worldwide are waking up to the cost-saving potential of letting patients do what Americans have long donemedicate themselves for simple ailments like headaches, upset stomachs, coughs, colds or flu.



Although arthritis is not as prevalent in Japan as it is in the U.S., Japanese sculptor Noboru Shimoyama - shown working on a statue of the goddess of mercy - still suffers occasional arthritic-like pains in his hands. "I have lived with this pain so long that I am almost good friends with it. savs Mr. Shimovama, 50, who uses traditional Japanese carving tools at his home 60 miles west of Tokyo. "But if it hart all the time, I couldn't work. Fortunately, the pain comes only sometimes, and when it does. I take a pain reliever - Bufferin

Ver-the-counter (OTC) medicines are among the most cost-effective drugs around," says Peter R. Dolan, president of Bristol-Myers Products, the company's OTC division. Indeed, Americans pay, for a single dose, an average of only 11 cents for an OTC pain reliever, according to a recent Nielsen Marketing Research Study, 12 cents for an upset stomach remedy, 17 cents for a laxative and 20 cents for a cough/cold product.

That's why the OTC market – about \$12 billion annually in the U.S. and \$25-\$30 billion worldwide – is likely to grow as patients and governments become more costconscious, says Stephen E. Bear, executive vice president of the Consumer Products Group.

"There have been more than 50 switches of ingredients from prescription status to OTC since 1972, and we see that as a growth area too," adds Mr. Dolan. "As more health care providers and employers seek to share costs with consumers, and as consumers themselves become more interested in taking health care into their own hands, product accessibility, through Rx to OTC switches, becomes key."

With more than \$500 million in annual revenues from nonprescription medicines like *Bufferin*, *Excedrin*, *Nuprin* and *Comtrex*, Bristol-Myers Squibb is ready to meet this growing worldwide demand.

The company's OTC business is growing fast in a number of international markets. In Japan, for instance,

Bufferin is the leading internal analgesic. In other markets, the company is increasing its presence and sales base through acquisitions. The purchase in 1993 of Laboratori Guieu in Italy provides important Italian pharmacy distribution. In France, the company's minority investment in the UPSA Group helps provide an important infrastructure in Europe's second largest nonprescription pharmaceutical market. And, according to Wesley M. Thompson, president, Consumer Products International, the company's OTC business in China will be developed with the cooperation of Bristol-Myers Squibb's existing joint venture in Shanghai.

Strategic Alliances Bristol-Myers Squibb has forged a number of mutually beneficial research partnerships with companies, universities and government agencies, and will continue to seek and

expand such collaborations in the future.



D uring 1993, Bristol-Myers Squibb entered an important alliance with Sterling Winthrop and Elf Sanofi to develop and market two new compounds: clopidogrel, a. nti-clotting agent that may help prevent heart attacks, strokes or peripheral artery disease, and an angiotensin II receptor antagonist for treatment of high blood pressure and possibly other cardiovascular disorders.

In June 1993, the company took an equity position in Ixsys, Inc., a San Diego company that creates monoclonal antibodies for treating solid tumors. "Biotech is not just a new technology," says Kenneth E. Weg, Pharmaceutical Group president. "It is at the cutting edge of therapeutics. Through strategic alliances such as this, Bristol-Myers Squibb will enhance its leadership in the pharmaceutical/biotechnology industry."

Scientists at the company's research facility in Princeton, N.J., are working on a new angiotensin II receptor blocker, representing a new class of anti-hypertensive agents. Their efforts are the result of a collaborative agreement with Sterling Winthrop and Elf Sanofi.

Increased Productivity

Following the 1989 merger of Bristol-Myers and Squibb, the company embarked on a planned multiyear restructuring that has boosted productivity while cutting costs.



This new bulk anti-cancer organic synthesis plant in Swords, Ireland, will use renewable biomass to produce **TAXOL** once the FDA approves a Bristol-Mycrs Squibb application to produce **TAXOL** using a semisynthetic process. **n all four of its core businesses** Bristol-Myers Squibb has consolidated plants and offices to be more cost-effective and competitive worldwide.

In the pharmaceutical business, for example, the merger left the company with 63 plants. Of those, 27 have been closed and two more downsized. By 1996, the company expects to be down to about 30 operating plants altogether for an annual savings of greater than \$100 million, while actually producing more than before the merger.

Says Dr. Louis T. DiFazio, president of Technical Operations, the division in charge of pharmaceutical manufacturing, "Our goal at Tech Ops is to continue to be a high-quality producer but at a cost that is as low or lower than good generic manufacturers."

Focus on Preventive Care Doctors and patients alike are placing greater value on preventive care, and Bristol-Myers Squibb fields an enviable array of products aimed at forestalling disease.



"After an operation like that, says James M. Trice, Jr., of the coronary artery hypass surgery he had in 1991, "you come away realizing that you diem," as the Latin phrase goes. So I try to plan for the future has make the most out of today." The retired executive is shown working out at the yogu class he attends three times a week. He also plays two hours of vigorous doubles tennis every Saturday, eats a low-fat diet and takes medications to help control his cholesteral level.

y goal is to be here for a long time," declares James M. Trice, Jr., whose active, healthy lifestyle belies the fact that he suffered a mild heart attack in 1988 and had open-heart surgery in 1991. To that end, Mr. Trice, a retired human resources executive in St. Louis, stays busy with many sports and activities and eats a low fat diet. He also takes Bristol-Myers Squibb's *Pravachol* and *Qu stran* regularly. As a result, he has been able to reduce his cholesterol levels from a very high 399 milligrams per deciliter to about 170– well within the normal range.

"One of our strengths as a company is that many of our products are aimed at preventive and chronic care," says Dr. Andrew G. Bodnar, president, Oncology, Diagnostics and Worldwide Strategic Business Development. "Our cardiovascular area is a perfect example. There are only a few cardiovascular risk factors that you can do anything about, like lowering your cholesterol level and your blood pressure. We are fortunate to have products like *Pravachol*, *Questran*, *Capoten* and *Monopril* that address that need."

The same is true of many of the company's nutritionals. "As HMOs and other large treatment centers become more important, they will make money by keeping people well," says E. Lynn Johnson, president of the Mead Johnson Nutritional Group. "That's where nutritionals



can help."

One particularly dramatic example: specialty nutritionals like those made for children who suffer from a metabolic defect known as phenylketonuria, or PKU. Such children, roughly one in 16,000 newborns in the U.S., need a special diet for their nervous systems to develop. Untreated, many would suffer severe mental retardation. Thanks to products like Mead Johnson's *Lofenalac, Phenyl-Free*, and *PKU-I* and *PKU-2* for infants and toddlers, most grow up normally today.

The cost of a typical PKU diet can run \$4,000 to \$5,000 a year. "For comparison, though, the cost of caring for a mentally retarded PKU patient in an institution comes to about \$70,000 per person per year," says Dr. Richard Koch, an expert in PKU at the University of Southern California School of Medicine and the Children's Hospital of Los Angeles. "My patients aren't institutionalized. They're working people-taxpayers, not tax users."

Responsible Leadership

A pioneer in establishing low-income access programs for its critical pharmaceuticals, including the precedent-setting effort that distributed *VIDEX* to AIDS patients, the company continues to set standards for corporate ethics and responsibility.

Dr. Richard Pollard, of the University of Texas Medical Branch at Galveston, is a clinical investigator with patients curolled in the Zerit (d4T) Parallel Track Program,



T he *VIDEX* expanded access program, under which the drug was distributed free to 23,000 people with AIDS outside the clinical trials prior to winning FDA approval in late 1991, earned high praise from government regulators and patient groups alike. More recently, the company's newest anti-viral, *Zerit* (d4T), submitted for FDA approval in December 1993, became the first drug to be distributed under the FDA's new Parallel Track Program – which is modeled on the *VIDEX* effort and gives patients access to a drug free of charge while it is still being tested. Thus far, more than 10,000 patients have enrolled.

Although the AIDS programs have attracted the greatest publicity, they only continue the company's two-decade-long tradition of providing its critical medications free to those who can't afford them, begin-

ning with its anti-cancer drugs in 1973. The company's cardiovascular drugs were added to the access list in 1992. The company has pledged that no one would be denied a critical Bristol-Myers Squibb drug because of an inability to pay.

Such programs are only one example of the company's good citizenship. Through its 17-year-old unrestricted biomedical research grants program, the company has provided more than \$45 million to scientists working in the fields of cancer, nutrition, orthopaedics, neuroscience, pain, cardiovascular and infectious disease research (see page 46 for more on this program). In addition, it contributes more than \$17 million a year in charitable gifts in other areas through the Bristol-Myers Squibb Foundation, the company and its divisions.

The company is deeply committed to equality in hiring and promotion. It provides special grants and scholarships to assist women and minorities.

In addition, the company has been a leader in protecting the natural world. Its Environment 2000 program, launched in 1992, stresses the need to minimize the environmental impact of all company products and activities at each stage of the product life cycle.

As the Bristol-Myers Squibb Pledge explains: "We pledge Bristol-Myers Squibb to policies and practices which fully embody the responsibility, integrity and decency required of free enterprise if it is to merit and maintain the confidence of our society."

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Financial Review

Summary

During 1993, Bristol-Myers Squibb's worldwide sales of \$11.4 billion increased 2% over the prior year. Domestic sales increased 4% while international sales remained at prior year levels (a 5% increase excluding the unfavorable effect of foreign

Earnings from continuing operations, excluding the 1993 special charge and a 1992 restructuring charge, increased 8% to \$2,269 million and 8% to \$4,40 per share. Including these charges, earnings from continuing operations were \$1,959 million, or \$3,80 per share, in 1993 and \$1,538 million, or \$2.97 per share, in 1992

In the fourth quarter of 1993, a special charge of \$500 million before taxes, \$310 million after taxes, or \$.60 per share, was recorded in connection with pending and future breast implant product liability claims against the company, its subsidiary. Medical Engineering Corporation, and certain other subsidiaries. The special charge consists of \$1.5 billion for potential liabilities and expenses related to breast implant claims, offset by \$1 billion of expected insurance proceeds. This special charge is further discussed in Note 2 to the financial statements.

In the fourth quarter of 1992, a charge of \$890 million before taxes, \$570 million after taxes, or \$1.10 per share, was recorded in connection with various restructuring actions taken by the company to strengthen its four core businesses in recognition of changing worldwide health care trends. This charge primarily covered the costs of reducing employment levels, including a voluntary retirement program for the company's U.S. employees. and streamlining worldwide production and distribution operations.

Bristol-Myers Sq ubb's financial position remains strong. At December 31, 1993, t. e company held \$2.7 billion in cash and cash equivalents, time deposits and marketable securities, and working capital increased to \$3.5 billion from \$3.3 billion at December 31, 1992 and \$2.8 billion at December 31, 1991. Cash provided by operating activities increased to \$2.6 billion in 1993 from \$2.0 billion and \$1.8 billion in 1992 and 1991, respectively. and continued to finance research, new product development and introductions, capital spending and working capital needs, as well as increased dividend payments. In 1993, dividends per common share were \$2.88, an increase of 4% over 1992. In December 1993, an additional dividend increase of 1,4% was announced, with a 1994 indicated annual payment of \$2.92. With this payment, Bristol-Myers Squibb dividends will have increased at a compound annual growth rate of 15% over the past 10 years. This increase represents the 22nd consecutive year that the company has raised the dividend on its common stock.

Bristol-Myers Squibb's strong financial position is further evidenced by its ability to maintain a triple A credit rating, a substantial unused borrowing capacity, a return on stockholders' equity of 32.8% in 1993 and a low long-term debt to equity ratio.

Net Sales and Earnings

Worldwide sales increased 2% in 1993 to \$11.4 billion, compared to increases of 6% and 9% in 1992 and 1991, respectively. The 1993 consolidated sales growth resulted from a 3% increase due to volume, a 2% increase due to pricing, offset in part by a 3% decrease due to the unfavorable effect of foreign currency translation. Domestic sales increased 4%, while international sales remained at prior year levels (a 5% increase excluding the unfavorable effect of foreign currency translation). In 1992, the 6% increase in sales reflected a 4% increase due to pricing, a 1% increase due to volume and a 1% increase due to the favorable effect of foreign currency translation. Domestic operations, which were adversely affected by actions taken by wholesalers in



1992 to reduce their inventories of pharmaceuticals, reported sales growth of 1% in 1992 compared to 10% in 1991, while international operations reported sales growth of 12% and 7% in 1992 and 1991, respectively.

In 1993, earnings and earnings per share from continuing operations were \$1,959 million and \$3.80 per share, respectively, compared to \$1,538 million and \$2.97 per share in 1992 and \$1,991 million and \$3.82 per share in 1991. Excluding the 1993 special charge and the 1992 restructuring charge, earnings from continuing operations increased 8% to \$2,269 million and 8% to \$4.40 per share in 1993.

The effective income tax rate on earnings from continuing operations before income taxes was 23.8% in 1993 compared to 22.6% in 1992. Excluding the special charge in 1993 and the restructuring charge in 1992, the effective income tax rates were 26.1% and 26.7%, respectively, compared to 28.5% in 1991, reflecting the continued benefit of increased earnings in lower tax jurisdictions. As a result of changes approved in the Omnibus Budget Reconciliation Act of 1993, the company estimates that its effective tax rate will increase in 1994 to approximately 30.0%.

Expenses

Total costs and expenses, excluding the 1993 special charge of \$500 million and the 1992 restructuring charge of \$890 million, were 73.1% of sales in 1993 compared to 74.2% in 1992 and 73.7% in 1991. As a percentage of sales, cost of products sold increased in 1993 to 26.5% from 25.6% in 1992 and 25.7% in 1991, primarily as a result of higher manufacturing costs of newer pharmaceutical products.

Marketing, selling and administrative expenses, as a percentage of sales, decreased to 27.1% in 1993 from 27.6% in 1992 and 27.9% in 1991. The decline in 1993 reflects reductions in selling expenses, primarily in the U.S., and the company's ongoing commitment to contain administrative costs. The level of advertising and promotion in support of new and existing products was \$1,255 million in 1993 compared to \$1,291 million in 1992 and \$1,263 million in 1991. The decline in 1993 reflects lower expenditures in the nonprescription health and pharmaceutical products segments, offset in part by increased spending in the toiletries and beauty aids segment.

The company's investment in research and development expenses reached over \$1.1 billion, an increase of 4% over 1992. In 1991, research and development expenses were \$983 million. The increase each year reflects the company's continued commitment to research over a broad range of therapeutic areas and clinical development in support of newer products. Over the last 10 years, research and development spending has increased nearly fourfold, resulting in a compound annual growth rate of 14%. Pharmaceutical research and development spending, as a percentage of pharmaceutical sales, increased to 14.9% in 1993 from 14.8% in 1992 and 14.3% in 1991.

Industry Segments

By the end of 1993, Bristol-Myers Squibb had 27 products with more than \$100 million in annual sales, including products from all four of the company's industry segments.

In 1993, sales in the **Pharmaceutical Products Segment**, which represents the largest segment at 57% of total company sales, increased 3% to \$6,524 million. The worldwide sales growth resulted from a 5% increase due to volume and a 1% increase due to pricing, offset in part by a 3% decrease due to the unfavorable effect of foreign currency translation. Domestic sales increased 11% primarily due to the company's newer products, while international sales decreased 4% (a 2% increase excluding the unfavorable effect of foreign currency translation). Sales of cardiovascular drugs, the largest product group in the segment at \$2.6 billion, were 2% below prior year levels. Captopril, an angiotensin converting enzyme (ACE) inhibitor and the compa-



ny's largest selling product, is sold primarily under the trademark Capoten (the patent for which expires in the U.S. and Germany in 1995). Sales of captopril decreased 11% to \$1.5 billion as a result of unfavorable foreign currency translation, a decline in U.S. market share and reduced sales in certain European countries reflecting restrictive government costcontainment measures. In 1993, the U.S. Food and Drug Administration (FDA) approved Capoten for a novel and expanded use following heart attacks in patients with impaired function of the left ventricle. Pravachol, the company's newer cholesterol-lowering agent with worldwide sales exceeding \$500 million, and Monopril, a second generation ACE inhibitor with once-a-day dosage, performed exceptionally well, with strong volume growth in the U.S. and in overseas markets. U.S. sales of nadolol, a beta blocker sold primarily under the trademark Corgard (the patent for which expired in the U.S. in September 1993), remained at prior year levels. Sales of the company's antiinfectives increased 2% to over \$1.5 billion as increases in Cefzil, an oral cephalosporin antibiotic, VIDEX, an antiretroviral agent for patients with AIDS or HIV disease, and Duricef, a broad-spectrum oral cephalosporin antibiotic, were offset in part by declines in Amikin, which is experiencing generic competition, and in Azactam. The company's line of anti-cancer agents was the fastest growing product group in the segment, strengthening the company's leadership position in cancer therapy. In 1993, sales of anti-cancer agents increased 19% to \$1.2 billion. Introductory sales of TAXOL, the company's anti-cancer agent approved in the U.S. and Canada in December 1992 for treatment of patients with ovarian cancer whose first-line or subsequent chemotherapy has failed, were strong. In the latter part of 1993, TAXOL received clearance for marketing in a number of countries in Europe, Latin America and the Pacific area. Increased sales of VePesid (the patent for which expired in the U.S. in November 1993), Paraplatin and Platinol also contributed to the growth of anti-cancer agents. Central nervous system drug sales increased 7%, reflecting domestic growth in sales of *BuSpar*, the company's novel anti-anxiety agent, and *Stadol NS*, a prescription nasal spray analgesic. In the area of dermatological drugs, the company received FDA approval in December 1993 to market *Dovonex*, a vitamin D₃ analogue for the treatment of moderate psoriasis. Sales of diagnostic agents were below prior year levels primarily due to *Isovue*.

In 1992, pharmaceutical products segment sales increased 7%, with a 4% increase due to pricing, a 2% increase due to volume and a 1% increase due to the favorable effect of foreign currency translation. Increases in sales of *Capoten*, *Pravachol*, *Monopril*, *Cefzil*, *VIDEX*, *Paraplatin* and *VePesid* were the primary contributors to sales growth. In 1991, sales in the segment increased 12% primarily as a result of increased cardiovascular, anti-infective, anti-cancer and central netvous system drug sales.

Operating profit margin in 1993 was 32.7% compared to 31.0% in 1992, excluding the 1992 charge of \$371 million for restructuring pharmaceutical operations. The increase in 1993 resulted from reductions in selling and advertising expenses, offset in part by higher manufacturing costs of newer pharmaceutical products. In 1992, operating profit margin of 31.0%, excluding the restructuring charge, was lower than the 31.2% reported in 1991 due to increased selling and promotion expenses for the company's new and existing products.

Sales in the **Medical Devices Segment** increased 2% in 1993 to \$1,693 million, reflecting a 3% increase due to pricing, a 1% increase due to volume and a 2% decrease due to the unfavorable effect of foreign currency translation. Domestic sales remained at prior year levels, while international sales increased 4% (9% excluding the unfavorable effect of foreign currency translation). Worldwide sales of prosthetic implants increased 5%, led by the Insall/Burstein II Modular Total Knee System, the *MGII* Total Knee System and the *Centralign* Precoat Hip



Prosthesis. As a result, the company continues to maintain the number one market position worldwide in both the hip and knee prostheses markets. Sales of ostomy products increased 2% (11% excluding the unfavorable effect of foreign currency translation) primarily due to volume growth of the *Active Life/Colodress* and the *Sur-Fir/Combihesive* product lines in the U.S. and in international markets. During 1993, the company introduced *Active Life Flushaway*, a one-piece, closed-end flushable pouch. In the company's line of wound care products, sales increased as a result of strong volume growth in international markets and the launch of several new *DuoDERM* products in the U.S. Sales of the company's arthroscopy products increased due to the strong performances of orthopaedic reconstructive systems and power cutting instruments. In the company's line of fracture management products, the company introduced *Collagraft* Bone Graft Matrix, an alternative to using bone graft materials from donor bone stock or harvested from the patient.

In 1992, worldwide sales of medical devices increased 7% due to a 5% increase from pricing, a 1% increase from volume and a 1% increase due to the favorable effect of foreign currency translation. The sales growth was primarily due to increased sales of prosthetic implants, ostomy, wound care and arthroscopy produets, offset in part by volume declines of other product lines divested in 1991. In 1991, sales in the segment increased 9% as a result of increases in knee and hip prostheses and ostomy and wound care products.

During 1993, the company sold certain assets of Edward Weck Incorporated and announced the intention to sell its Xomed-Treace subsidiary.

As a result of the \$500 million special charge for pending and future breast implant product liability claims and related expenses, the medical devices segment recorded an operating loss of \$24 million in 1993. Excluding the 1993 special charge and the 1992 restructioning charge of \$155 million, operating profit margin was 28.1% in 1993 compared to 27.6% in 1992. The increase in 1993 reflects declines in selling and administrative expenses. In 1992, operating profit margin of 27.6%, excluding the restructuring charge, increased from 22.7% in 1991, which included costs associated with the divestiture of certain product lines.

In the Nonprescription Health Products Segment, sales of \$1,964 million remained at prior year levels as a 5% increase due to pricing was offset by a 5% decrease due to volume. Domestic sales decreased 3%, primarily in sales of Excedrin and Bufferin analgesics, which were adversely affected by increased competition in the U.S. market. International sales increased 6%, primarily due to Bufferin, the leading internal analgesic in Japan, and Isocal, an adult nutritional product. Worldwide sales of infant formulas increased with the introduction of Lactofree, a milk-based, lactose-free infant formula introduced in the U.S. in early 1993, and growth in sales of Nutramigen and Gerber Soy specialty formulas as well as Enfapro and Gerber Baby routine formulas. These increases were offset in part by reduced sales of Enfamil and ProSobee under the federal government's Women, Infants and Children (WIC) program due to the loss of certain sole source contracts in late 1992 and early 1993. In the latter part of 1993, five new WIC contracts, in Pennsylvania, Missouri, South Carolina, Colorado and Mississippi, became effective.

In 1992, worldwide sales of nonprescription health products increased 3% due to a 5% increase in pricing, offset in part by a 2% decrease due to volume. The sales growth was primarily due to increases in international sales of *Enfamil, Enfapro* and *ProSobee* infant formulas and *Bufferin* analgesics. In 1991, sales in the segment increased 7% as a result of Gerber Baby Formula, *Enfapro, ProSobee, Sustagen, Excedrin* 1B, *Excedrin PM* and *Bufferin* AF Nite Time.



Operating profit margin of 23.6% in 1995 remained relatively unchanged from the 23.7% reported in 1992, excluding the 1992 charge of \$150 million for restructuring worldwide operations of the nonprescription health products segment and a \$46 million charge for the cost of settlements relating to the company's infant formula business. In 1992, operating profit margin of 23.7%, excluding the 1992 charges, increased from 22.9% in 1991.

Sales in the Toiletries and Beauty Aids Segment increased 1% in 1993 to \$1,232 million, reflecting a 2% increase due to pricing. a 1% increase due to volume and a 2% decrease due to the unfavorable effect of foreign currency translation. Domestic sales increased 1%, and international sales increased 2%. Sales of the company's haircoloring products increased, as Glints Conditioning Color Enhancer, a new haircoloring product introduced in the U.S. aimed at new and younger users, performed exceptionally well during its first year, as did Lasting Color by Loving Care and Brights by Nice 'n Easy. Sales of skin care products increased due to international growth of Sea Breeze and sales from Laboratori Guieu, an Italian over-the-counter skin care company acquired in early 1993. In the company's line of anti-perspirants, sales of Ban increased, reflecting the introduction of Ban Clear A.P., a clear solid anti-perspirant, launched in the U.S. and Canada.

In 1992, sales in the toiletries and beauty aids segment increased 1% due to a 3% increase in pricing, offset in part by a 2% decrease in volume. Increased sales of anti-perspirants and haircoloring products were partially offset by declines of beauty appliances and other hair care products. In 1991, sales in the segment decreased 5% as increased sales of haircoloring products and anti-perspirants were more than offset by declines in other brands.

In December 1993, the company sold the beauty appliance division of Clairol.

Operating profit margin in 1993 was 13.2% compared to 13.1% in 1992, after adjusting for the 1992 charge of \$150 million for restructuring the worldwide toiletries and beauty aids segment. In 1992, operating profit margin of 13.1%, excluding the restructuring charge, decreased from 16.9% in 1991 partially due to increased advertising and promotion expenditures as a percentage of sales.

Geographic Areas

In 1993, sales of the company's domestic operations increased 4% primarily as a result of gains in the pharmaceutical products segment. Operating profit margin from domestic operations was 23.2% in 1993 compared to 19.9% in 1992. Excluding the 1993 special charge of \$500 million and the 1992 restructuring charge of \$595 million, operating profit margin increased to 29.8% in 1993 from 28.0% in 1992. The increase reflects declines in selling and administrative expenses, offset in part by increased manufacturing costs of newer pharmaceutical products. In 1992, domestic sales, which were adversely affected by actions taken by wholesalers to reduce their inventories of pharmaceuticals, increased 1%. Operating profit margin, after adjusting for the 1992 restructuring charge, was 28.0% compared to 28.1% in 1991 in part due to increased selling and promotion expenses.

Internationally, sales in 1993 remained at prior year levels. Excluding the unfavorable effect of foreign currency translation, international sales increased 5% in the year. International sales increased 12% in 1992 and 7% in 1991.

Sales in Europe, Mid-East and Africa, net of inter-area sales, decreased 8% in 1993 as a result of unfavorable foreign currency translation as well as lower pharmaceutical sales in certain European countries reflecting restrictive government cost-containment measures. Operating profit margin was 19.3% compared to 21.1% in 1992, excluding the 1992 restructuring charge of \$134 million, primarily as a result of declines in the



pharmaceutical products segment. In 1995 sales in Europe, Mid-East and Africa increased 13%, reflecting growth of *Pravachol, Capoten*, prosthetic implants, ostomy and wound care products, as well as introductory sales of *Monopril* in Italy. Operating profit margin, excluding the 1992 restructuring charge, was 21.1% compared to 22.1% in 1991.

Sales in Other Western Hemisphere countries increased 5% in 1993, primarily due to increased sales of anti-infectives, cardiovasculars, haircoloring products and anti-perspirants in Latin America. Operating profit margin of 20.0% remained relatively unchanged from the 20.1% reported in 1992, excluding the 1992 restructuring charge of \$51 million. In 1992, sales in Other Western Hemisphere countries increased 8% primarily due to volume growth of cardiovasculars, anti-infectives and infant formulas in Latin America. Operating profit margin was 20.1% in 1992, excluding the restructuring charge, compared to 19.8% in 1991.

Sales in the Pacific area increased 15% in 1993 as a result of favorable foreign currency translation and increased sales of prosthetic implants, infant formulas and anti-cancer drugs. Operating profit margin was 15.8% compared to 12.6% in 1992, excluding the 1992 restructuring charge of \$46 million, primarily as a result of improvements in the pharmaceutical products and medical devices segments. In 1992, Pacific area sales increased 12% due to growth of infant formulas, prosthetic implants, cardiovascular drugs and analgesics. Operating profit margin was 12.6%, excluding the 1992 restructuring charge, compared to 10.3% in 1991, reflecting improvements in the medical devices segment.

Financial Position

The company considers cash, including cash equivalents, time deposits and marketable securities as its principal measure of liquidity. These items totaled \$2.7 billion at December 31, 1993,

increasing from \$2.4 billion and \$1.6 billion at December 31, 1992 and 1991, respectively. The company also continues to maintain a high level of working capital, increasing to \$3.5 billion at December 31, 1993 from \$3.3 billion at December 31, 1992 and \$2.8 billion at December 31, 1991. The company's current ratio at December 31, 1993 increased to 2.14 from 2.01 in 1992 and 2.02 in 1991. Cash and cash equivalents, time deposits and marketable securities and the conversion of other working capital items to cash are expected to be adequate to fund the operations of the company and any product liability claims and related expenses.

Short-term borrowings decreased to \$177 million from \$375 million and \$553 million at December 31, 1992 and 1991, respectively, reflecting repayments of international borrowings. In June 1993, the company issued \$350 million principal amount of 7.15% Debentures Due 2023, for general corporate purposes, including stock purchase programs, working capital, capital expenditures, repayment or refinancing of borrowings and acquisitions.

Internally generated cash from operations continued to increase in 1993 to \$2.6 billion from \$2.0 billion and \$1.8 billion in 1992 and 1991, respectively, reflecting the company's ongoing commitment to improve cash flow and working capital needs. Cash provided by operations continued to be the primary source for financing expenditures for new plant and equipment. Over the past three years, the company has invested \$1.9 billion in capital expansion in its commitment to maintain superior production and research facilities and to improve plant efficiency. Cash from operations also was used to pay dividends of nearly \$4.2 billion during the past three years, and to fund the \$1.1 billion purchase of over 16 million shares of the company's common stock over the same period.



(dollars in millions, except per share amounts)	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Year
1993: Net Sales Gross Profit Net Earnings ^(a) Earnings Per Common Share ^(a)	\$2,755 2,014 575 1,11	\$2,802 2,085 521 1.01	\$2,862 2,099 608 1.18	\$2,994 2,186 255 .50	\$11,413 8,384 1,959 3.80
1992: Net Sales Gross Profit Earnings from Continuing Operations ^(b) Net Earnings ^(can)	\$2,641 1,983 534 302	\$2,743 2,044 475 488	\$2,948 2,180 572 589	\$2,824 2,092 (43) 583	\$11,156 8,299 1,538 1,962
Per Common Share: Continuing operations (8)	1.03	.92 .94	1.10 1.14	(.08) 1.13	2.97 3.79

⁴⁰ Included in the fourth quarter of 1993 is a special charge of \$500 million before taxes, \$310 million after taxes, or \$.60 per share, for pending and future product liability claims.

@ Included in the fourth quarter of 1992 is a charge for restructuring of \$890 million before taxes, \$570 million after taxes, or \$1.10 per share.

First quarter 1992 results and earnings per share reflect the cumulative effect of adopting, effective January 1, 1992, a new accounting standard for postretirement benefits of \$390 million before taxes, \$246 million after taxes, or \$.47 per share.

Included is, 1992 were the results of The Drackett Company of \$65 million after taxes, or \$.12 per share, for the year and in the fourth quarter, the gain on its sale of \$605 million after taxes, or \$1.17 per share.

Market Prices

Bristol-Myers Squibb common and preferred stocks are traded on the New York Stock Exchange and the Pacific Stock Exchange (symbol: BMY). A quarterly summary of the high and low market prices is presented below:

Dividends

Dividend payments per share in 1993 and 1992 were:

	19	993	1992	
	High	Low	High	Low
Common:				
First Ouarter	\$67%	\$52%	\$90%	\$75%
Second Ouarter	62%	56%	79%	62
Third Quarter	60%	50%	71%	61%
Fourth Quarter	621/4	54%	72%	60
	1	993	19	92
	High	Low	High	Low
Preferred:				
First Quarter	\$271	\$230	\$371	\$371
Second Quarter	No	Trades	No	Frades
Third Ouarter	236	227%	No	Trades
Fourth Quarter	No	Trades	No	Frades

	Common		Prefe	erred
	1993	1992	1993	1992
First Quarter Second Quarter Third Quarter Fourth Quarter	\$.72 .72 .72 .72	\$.69 .69 .69 .69	\$.50 .50 .50 .50	\$.50 .50 .50 .50
Year	\$2.88	\$2.76	\$2.00	\$2.00

An additional dividend increase was announced in December 1993. The 1994 indicated annual payment of \$2.92 per share represents a 1.4% increase over the \$2.88 per share paid in 1993. This increase represents the 22nd consecutive year that the company has raised the dividend on its common stock.

Consolidated Statements of Earnings and Retained Earnings

Bristol-Myers Squibb Company

		Year	Ended December	r 31,
	(in millions of dollars except per share amounts)	1993	1992	1991
Carnings	Net Sales	\$11,413	\$11,156	\$10,571
	Expenses			
	Cost of products sold	3.029	2857	2 717
	Marketing calling and administrative	2.008	2,007	2,046
	A deartising and readuct promotion	1 255	1,201	1 363
	Passarah and development	1,400	1,271	1,203
	Research and development	1,128	1,085	985
	Special charge	500	000	
	Provision for restructuring	(170)	890	(122)
	Other commission and consistent and c	(168)	(27)	(122)
		8,842	9,169	7,787
	Earnings from Continuing Operations			
	Before Income Taxes	2,571	1,987	2,784
	Provision for income taxes	612	449	793
	Earnings from Continuing Operations	1,959	1,538	1,991
	Discontinued Operations, net		670	65
	Farnings Before Cumulative Effect of			
	Accounting Change	1,959	2,208	2,056
	Cumulative Effect of Accounting Change (net of income tax benefit of \$144)		(246)	
	Net Earnings	\$ 1,959	\$ 1,962	\$ 2,056
	Des Commens Shares			
	Earnings from continuing operations	\$3.80	\$2.97	\$3.82
	Discontinued operations		1 20	13
	Earning bafara aunulation offset of		1	
	accounting change	3.80	4.26	3.95
	Cumulative effect of accounting change		(.47)	-
	Net earnings	\$3.80	\$3.79	\$3.95
Retained Earnings	Retained Earnings, January 1	\$6,769	\$6,235	\$5,428
	Net earnings	1,959	1,962	2,056
		8,728	8,197	7,484
	Less dividends	1,485	1,428	1,249
	Retained Earnings, December 31	\$7,243	\$6,769	\$6,235
		the second s		A REAL PROPERTY AND A REAL PROPERTY.

The accompanying notes are an integral part of these financial statements.

Consolidated Balance Sheet

Bristol-Myers Squibb Company

			December 31,	
	(in millions of dollars)	1993	1992	1991
Assets	Current Assets:	6 2 (2)	6 0 107	\$1.425
	Cash and cash equivalents.	\$ 2,421	5 2,137	51,433
	Time deposits and marketable securities	1 950	1 084	1 971
	Receivables, net of allowances	1 322	1,984	1.451
	Inventories	660	762	562
	Total Current Assets	6,570	6,621	5,567
		2 274	3.141	2.036
	Property, Plant and Equipment-net	3,374	2,141	2,750
	Insurance Recoverable	1,000		
	Other Assets	966	889	743
	Excess of cost over net tangible assets	101	153	170
	received in business acquisitions	\$12,101	\$10,804	\$9,416
Liabilities	Current Liabilities:	\$ 177	\$ 375	\$ 553
	Short-term borrowings	649	562	537
	Accounts payable	1 550	1 422	1.167
	Accrued expenses	689	941	495
	Total Current Liabilities	3,065	3,300	2,752
	Product Liability	1,370	63	65
	Other Liabilities	1,138	1,245	669
	Long-Term Debt	588	176	135
	Total Liabilities	6,161	4,784	3,621
Stockholders' Equity	Preferred stock, \$2 convertible series: Authorized 10 million shares; issued and outstanding 25,798 in 1993, 28,517 in 1992 and 30,980 in 1991, liquidation value of \$50 per share Common stock, par value of \$.10 per share: Authorized 1.5 billion shares; issued 522,682,458 in 1992, 532,673,413 in 1992	-		
	upd 532 650 944 in 1001	53	53	53
	Capital in excess of par value of stock	353	435	485
	Complative translation adjustments	(332)	(208)	(90
	Retained earnings	7,243	6,769	6,235
		7,317	7,049	6,683
	Less cost of treasury stock-20,782,281 common			
	13 142 575 in 1001	1.377	1,029	888
	Total Stockholders' Equity	5.940	6.020	5,795
	total stockholders rajony	\$12.101	\$10.804	\$9.416
		016,101	Harden and Street and Street and	

The accompanying notes are an integral part of these financial statements.

Consolidated Statement of Cash Flows

Bristol-Myers Squibb Company

	Year Ended December :		
(in millions of dollars)	1993	1992	1991
Cash Flows From Operating Activities:			
Earnings from continuing operations	\$1,959	\$1,538	\$1,991
Depreciation and amortization	308	295	246
Special charge	500		
Provision for restructuring		890	
Other operating items	49	50	103
Receivables	41	(125)	(269)
Inventories	129	(163)	(114)
Prepaid expenses	92	(121)	4
Accounts payable	134	75	40
Accrued expenses and income taxes	(276)	(150)	(194)
Deferred income taxes	(27)	(196)	(31)
Other liabilities	(329)	(65)	59
Net Cash Provided by Operating Activities	2,580	2,028	1,835
Cash Flows From Investing Activities			
Proceeds from sales of time denosits and			
marketable securities	002	160	4 000
Purchases of time deposits and marketable	993	109	4,090
ruchases of unic deposits and marketable	(1.0.40)	(360)	(3 965)
Additions to fixed assats	(1,049)	(209)	(2,803)
Presented from solar of husingers	(570)	(047)	(028)
Other and	98	1,150	(20)
Net Cash (Used in) Provided by	(09)		(20)
Investing Activities	(597)	430	571
Cash Flows From Financing Activities:			
Short-term borrowings	(228)	(169)	169
Long-term debt	394	40	(96)
Issuances of common stock under stock plans	38	37	46
Purchases of treasury stock	(419)	(228)	(447)
Dividends paid	(1,485)	(1,428)	(1.249)
Net Cash Used in Financing Activities	(1,700)	(1,748)	(1,577)
Effect of Exchange Rates on Cash	1	(8)	10
Increase in Cash and Cash Equivalents	284	702	839
Cash and Cash Equivalents at Beginning of Year.	2,137	1,435	596
Cash and Cash Equivalents at End of Year	\$2,421	\$2,137	\$1,435

The accompanying notes are an integral part of these financial statements.

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Notes to Consolidated Financial Statements

Note 1 Accounting Policies

Basis of Consolidation

The consolidated financial statements include the accounts of Bristol-Myers Squibb Company and all of its subsidiaries.

Cash and Cash Equivalents

Cash and cash equivalents primarily include securities with a maturity of three months or less at the time of purchase, recorded at cost, which approximates market.

Time Deposits and Marketable Securities

Time deposits and marketable securities are available for sale and are recorded at fair value, which approximates cost.

Inventory Valuation

Inventories are generally stated at average cost, not in excess of market.

Property and Depreciation

Expenditures for additions, renewals and better ments are capitalized at cost. Depreciation is generally computed by the straight-line method based on the estimated useful lives of the related assets.

Excess of Cost over Net Tangible Assets

The excess of cost over net tangible assets received in business acquisitions subsequent to October 31, 1970 is being amortized on a straight-line basis over periods not exceeding forty years.

Earnings Per Share

Earnings per common share are computed using the weighted average number of shares outstanding during the year. The effect of shares issuable under stock plans is not significant.

Note 2 Special Charge

In the fourth quarter of 1993, the company recorded a special charge of \$500 million before taxes, \$310 million after taxes. or \$.60 per share, in connection with pending and future breast implant product liability claims against the company, its subsidiary, Medical Engineering Corporation, and certain other subsidiaries. The special charge consists of \$1.5 billion for potential liabilities and expenses related to breast implant claims (\$1.4 billion recorded as a long-term liability in Product Liability and \$.1 billion recorded as a current liability in Accrued Expenses), offset by \$1 billion of expected insurance proceeds (recorded as Insurance Recoverable). Although the company is currently engaged in coverage litigation with certain of its insurers, such expected insurance proceeds represent the amount of insurance which the company considers appropriate to record as recoverable at this time. The company believes that ultimately it will obtain substantial additional amounts of insurance proceeds. See Note 18.

Note 3 Discontinued Operations

On December 31, 1992, the company completed the sale of The Drackett Company, its household products business, to S.C. Johnson & Son, Inc., for \$1.15 billion in cash. The sale resulted in a gain of \$952 million before taxes, \$605 million after taxes, or \$1.17 per share. Drackett has been reported as a discontinued operation.

Summary results of Drackett's operations in 1992 and 1991 were:

Year Ended December 31, (in millions of dollars)	1992	1991
Net sales	\$571	\$588
Earnings before income taxes	\$103 38	\$103 38
Net earnings	\$ 65	\$ 65

Note 4 Provision for Restructuring

In the fourth quarter of 1992, a charge of \$890 million before taxes was recorded in connection with various restructuring actions taken by the company to strengthen its four core businesses in recognition of changing worldwide health care trends. This charge primarily covered the costs of reducing employment levels, including a voluntary retirement program for the company's U.S. employees, and streamlining worldwide production and distribution operations. The after-tax effect of the charge was \$570 million, or \$1.10 per share.

Note 5 Foreign Currency Translation

Cumulative translation adjustments, which represent the effect of translating assets and liabilities of the company's non-U.S. entities, except those in highly inflationary economies, were:

(in millions of dollars)	1993	1992	1991
Balance, January 1	\$208	\$ 90	\$ 61
Effect of balance sheet translations. Amount	141 (17)	151 (33)	38 (9
Balance, December 31	\$332	\$208	\$ 90

Gains (Losses) reflected in earnings from continuing operations in 1993, 1992 and 1991 of \$21 million, \$(63) million and \$(44) million, respectively, net of applicable income taxes, resulted from foreign currency transactions and translation adjustments related to non-U.S. entities operating in highly inflationary economies. In 1993, the gain reflected \$86 million (included in Other Income and Expenses) from foreign currency transactions and translation adjustments, offset by \$52 million of reductions in gross margin from charging cost of products sold with inventory at historic rates. In 1992 and 1991, the losses primarily reflected reductions in gross margins.

Note 6 Other Income and Expenses

Year Ended December 31, (in millions of dollars)	1993	1992	1991
Interest income	\$ 96	\$ 78	\$139
Interest expense	(7)	(49)	(55)
Other-net (Note 5)	1.29	(2)	38
	\$168	\$ 27	\$122

Interest expense was reduced by \$14 million in 1993, \$13 million in 1992 and \$12 million in 1991 due to interest capitalized on major property, plant and equipment projects. Cash payments for interest, net of amounts capitalized, were \$51 million, \$46 million and \$47 million in 1993, 1992 and 1991, respectively.

Note 7 Provision for Income Taxes

The components of earnings from continuing operations before income taxes were:

Year Ended December 31, (in millions of dollars)	1993	1992	1991
U.S. Non-U.S.	\$1,561	\$1,248 739	\$2,029 755
	\$2,571	\$1,987	\$2,784

The provision for income taxes consisted of:

Year Ended December 31, (in millions of dollars)	1993	1992	1991
Current:			
U.S. Federal	\$257	\$ 341	\$399
Non-U.S.	307	310	253
State and local	42	60	67
	606	711	719
Deferred:			
U.S.	(35)	(178)	33
Non-U.S	41	(84)	41
	6	(262)*	74
	\$612	\$ 449	\$793

*Primarily resulted from the provision for restructuring.

Income taxes paid during the year were \$783 million, \$606 million and \$795 million in 1993, 1992 and 1991, respectively.

The company's provision for income taxes in 1993, 1992 and 1991 was different from the amount computed by applying the statutory United States Federal income tax rate to earnings from continuing operations before income taxes, as a result of the following:

F	% of Earnings rom Continuing Operations Before Income Taxes			
	1993	1992	1991	
3.8. statutory rate	35.0%	34.0%	34.0%	
Puerto Rico	(10.1)	(8.7)	(7.9)	
state and local taxes	1.1	.2	1.6	
Non-U.S. operations	(.2)	(1.8)	1.3	
Other	(2.0)	(1.1)	(.5)	
	23.8%	22.6%	28,5%	

Prepaid taxes at December 31, 1993, 1992 and 1991 were \$377 million, \$405 million and \$268 million, respectively. The deferred income tax asset, included in Other Assets, at December 31, 1993 and 1992 was \$230 million and \$160 million, respectively. The deferred income tax liability, included in Other Liabilities, at December 31, 1991 was \$112 million.

The components of prepaid and deferred income taxes consisted of:

December 31, (in millions of dollars)	1993	1992	1991
Postretirement and pension benefits	\$ 275	\$ 144	\$ (10)
Product liability Restructuring and integrating	183	30	40
businesses	149	356	144
Depreciation	(198) 198	(166) 201	(158) 140
	\$ 607	\$ 565	\$ 156

The company has settled its United States Federal income tax returns through 1987 with the Internal Revenue Service.

United States Federal income taxes have not been provided on substantially all of the unremitted earnings of non-U.S. subsidiaries, since it is management's practice and intent to reinvest such earnings in the operations of these subsidiaries. The total amount of the net unremitted earnings of non-U.S. subsidiaries was approximately \$1,562 million at December 31, 1993.

Note 8 Inventories

December 31, (in millions of dollars)		1993		1992		1991
Finished goods	\$	741 239 342	S	846 272 372	5	836 245 370
First and Press P. C.	\$1	1,322	\$	1,490	\$	1,451

Note 9 Property, Plant and Equipment

December 31, (in millions of dollars)	1993	1992	1991
Land	\$ 148	\$ 145	\$ 144
Buildings	1.814	1,741	1,568
Machinery, equipment and fixtures	2,779	2,763	2,565
Construction in progress	495	383	441
	5,236	5,032	4,718
Less accumulated depreciation	1,862	1,891	1,782
	\$3,374	\$3,141	\$2,936

Note 10 Accrued Expenses and Other Liabilities

The components of accrued expenses were:

December 31, (in millions of dollars)		1993		1992		1991
Restructuring and integrating businesses. Medicaid and other rebates Salaries and wages Other	\$	288 173 111 978	\$	326 98 146 852	8	66 79 153 869
	\$1	1,550	S	1,422	\$1	,167

The components of other liabilities were:

December 31, (in millions of dollars)	1993	1992	1991
Postretirement benefits	\$ 452	\$ 402	S
Pension benefits	305	73	75
Restructuring and integrating businesses	82	460	175
Deferred income taxes	299	310	307
Musterenterenterenterenterenterenterentere	\$1,138	\$1,245	\$669

Note 11 Short-Term Borrowings and Long-Term Debt

Short-term borrowings included amounts due to banks and current installments of long-term debt totaling \$14 million, \$61 million and \$102 million at December 31, 1993, 1992 and 1991, respectively.

The company has short-term lines of credit with domestic and foreign banks. At December 31, 1993, the unused portions of these lines of credit were approximately \$200 million and \$491 million, respectively.

The components of long-term debt were:

December 31, (in millions of dollars)	1993	1992	1991
7 15% Debentures, due in 2023	\$343	s —	S
5.0% Term Loan, due in 2000	64		
6 18% Term Loan, due in 1997	60	53	
5.3% Term Loan, due in 1996	55	49	
6%% and 6%% Notes, due annually from 1995 to 2004	30	30	30
5.906% Term Loan, paid in 1993 Capitalized lease obligations,			47
through 2008	18	15	16
through 2008	18	29	42
	\$588	5176	\$135

Long-term debt at December 31, 1993 was payable:

Years Ending December 31,

1995	\$ 1
1996	0
1997	0
1998	
1999	
2000 and later	4.3
	\$58

The company entered into certain financial instruments to reduce its exposure to fluctuations in foreign currencies and in interest rates. These financial instruments included foreign exchange contracts of \$372 million, \$392 million and \$705 million outstanding as of December 31, 1993, 1992 and 1991, respectively, and interest rate protection agreements of \$100 million outstanding as of December 31, 1991. The foreign exchange contracts outstanding as of December 31, 1993, 1993 mature at various times through 1996.

Note 13 Retirement Benefit Plans

The company and certain of its subsidiaries have defined benefit pension plans for regular full-time employees. The principal pension plan is the Bristol-Myers Squibb Retirement Income Plan. The company's funding policy is to contribute amounts to provide for current service and to fund past service liability.

Cost for the company's defined benefit plans included the following components:

Year Ended December 31, (in millions of dollars)	1993	1992	1991
Service cost benefits earned during the year	\$ 104	\$ 94	\$ 79
Interest cost on projected benefit obligation	152	144	131
Actual earnings on plan assets	(232)	(119)	(328)
Net amortization and deferral	54	(73)	172
Net pension expense	5 78	\$ 46	\$ 54

The weighted average actuarial assumptions for the company's pension plans were as follows:

December 31,	1993	1992	1991
Discount rate	7.0%	6 8.2%	8.6%
Compensation increase	4.5%	6 5.0%	5.0%
Long-term rate of return	. 11.0%	a 12.0%	0 12.0%
The funded status of the plans was a	is follows		
December 31, (in millions of dollars)	1993	1992	1991
Actuarial present value of accumulated benefit obligation:			
Vested	\$(1.758)	8(1.354)	\$(1,226)
Non-vested	(201)	(155)	(147)
	\$(1,959)	\$(1,509)	\$(1,373)
Total projected benefit obligation	\$(2,339)	\$(1,892)	\$(1,730)
Plan assets at fair value	1,702	1,681	1,694
Plan assets less than projected benefit obligation Unamortized net assets	(637)	(211)	(36)
at adoption	(103)	(129)	(145)
Unrecognized prior service cost	96	105	112
Unrecognized net losses	510	313	137
Adjustment required to recognize minimum pension liability	(171)		
(Accrued)Prepaid pension expense	<u>\$ (305)</u>	\$ 78	\$ 68

In 1993, the increase in the actuarial present value of accumulated benefit obligation and in plan assets less than projected benefit obligation was primarily due to a lower discount rate and the effect of the voluntary retirement program offered to the company's U.S. employees.

In 1993, \$112 million of the adjustment required to recognize minimum pension liability was recorded in Other Assets and \$59 million was recorded as a reduction in Stockholders' Equity.

Plan benefits are primarily based on years of credited service and on participant's compensation. Plan assets principally consist of equity securities and fixed income securities. Note 14 Postretirement Benefit Plans Other Than Pensiors The company provides comprehensive medical and group life benefits to substantially all U.S. retirees who elect to participate in the company's comprehensive medical and group life plans. The medical plan is contributory. Contributions are adjusted periodically and vary by date of retirement and the original retiring company. The life insurance plan is non-contributory.

Effective January 1, 1992, the company adopted the provisions of Statement of Financial Accounting Standards No. 106, Employers' Accounting for Postretirement Benefits Other Than Pensions (FAS 106). This statement requires that the costs of postretirement benefits, primarily health care benefits, be accrued during an employee's active working career. In prior years, these costs were expensed as paid. The company recorded the discounted value of expected future benefits attributed to employees' service rendered prior to 1992 as a cumulative effect of an accounting change. This one-time non-cash accounting change was \$390 million before taxes, \$246 million after taxes, or \$.47 per share.

Cost for the company's postretirement benefit plans included the following components:

Year Ended December 31, (in millions of dollars)	1993	1992
Service cost benefits earned during the year	\$ 8	5.8
benefit obligation	32 (2)	30
Postretirement benefit expense.	\$38	\$38

The status of the plans was as follows:

December 31, (in millions of dollars)	1993	1992
Accumulated postretirement benefit obligation: Retirees Fully eligible active plan participants	\$(380) (17) (124)	\$(251) (27) (131)
Plan assets at fair value	(521) 28	(409)
Accumulated postretirement benefit obligation in excess of plan assets Unrecognized prior service cost	(493) (1) 42	(402)
Accrued postretirement benefit expense	\$(452)	\$(402)

In 1993, the increase in the accumulated postretirement benefit obligation was primarily due to a lower discount rate and the effect of the voluntary retirement program offered to the company's U.S. employees.

For measurement purposes, an annual rate of increase in the per capita cost of covered health care benefits of 12.3% for participants under age 65 and 10.2% for participants age 65 and over was assumed for 1994; the rate was assumed to decrease gradually to 5.2% in 2007 and to remain at that level thereafter. Increasing the assumed medical care cost trend rates by 1 percentage point in each year would increase the accumulated postretirement benefit obligation as of December 31, 1993 by \$28 million and the aggregate of the service and interest cost components of net postretirement benefit expense for the year the a ended by \$2 million. The weighted-average discount rate used in determining the accumulated postretirement benefit coligation was 7.0% in 1993 and 8.2% in 1992.

Plan assets principally consist of equity securities and fixed income securities. The expected long-term rate of return on plan a, sets was 11.0% in 1993 and 12.0% in 1992.

The cost of postretirement benefits was expensed as paid prior to tre adoption of FAS 106 and totaled \$18 million in 1991.

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Bristol-Myers Squibb Company

Note 15 Stockholders' Equity

Changes in capital shares and capital in excess of par value of stock were:

	Shares of Co.	mmon Stock	capital In Excess of Par Value of Stock (in millions
	Issued	Treasury	of dollars)
Balance,			
December 31, 1990	532,603,203	8,784,350	\$504
Issued pursuant to			
stock plans, options,	27 570	11 418 202	
Conversions of	27,570	(1,415,007)) (19
preferred stock	29 171		
Purchases	10 C g R C R	5,773,832	
Balance			
December 31, 1991	532,659,944	13,142,575	485
Issued pursuant to			
stock plans, options,			
rights and warrants	3,052	(1,464,223)	(50)
Conversions of			
preferred stock	10,417		
Purchases		3,010,700	
Balance,		a di sana araw	
December 31, 1992	532,673,413	14,689,052	435
Issued pursuant to			
stock plans, options,	2.520	(1 192 265)	122
Conversions of	2,230	(1,100,000)	(40)
preferred stock	11.515		
Purchases	in the second	7.276.594	
Adjustment required to			
recognize minimum			
pension liability			(59)
Balance,	1.0		
December 31, 1993	532,688,458	20,782,281	\$353
	A REAL PROPERTY OF A REAL PROPER	successive of the second	NAMES OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTIONO

Each share of the company's preferred stock is convertible into 4.24 shares of common stock and is callable at the company's option. The reductions in the number of issued shares of preferred stock in 1993, 1992 and 1991 were due to conversions into common stock.

Dividends per common share were \$2.88 in 1993, \$2.76 in 1992 and \$2.40 in 1991.

Under the company's stock option plans, officers, directors and key employees may be granted options to purchase the company's common stock at 100% of the market price on the day the option is granted. Additionally, the plans provide for the granting of stock appreciation rights whereby the grantee may surrender exercisable options and receive common stock and/or cash measured by the excess of the market price of the common stock over the option exercise price.

On May 4, 1993, the stockholders approved amendments to the 1983 Stock Option Plan extending its term for 10 years, authorizing additional shares in the amount of 0.9% of the outstanding shares per year for each of the additional 10 years, incorporating the company's existing long-term performance award plan and providing for the payment of long-term performance awards in shares of common stock valued at 100% of the market price on the date of payment.

The company's restricted stock award plan provides for the granting of up to 3,000,000 shares of common stock to key employees, subject to restrictions as to continuous employment except in the case of death or normal retirement. Restrictions generally expire over a five-year period from date of grant. At December 31, 1993, a total of 834,500 shares were outstanding under the plan.

Stock option and long-term performance award transactions were:

	Shares of Cor	nmon Stock
	Available for Option/Award	Under Plan
Balance, December 31, 1990	10,401,171	12,837,201
Granted	(3, 303, 166)	3,303,166
Exercised		(1,730,540)
Lapsed	287,727	(307,096)
Balance, December 31, 1991	7,385,732	14,102,731
Granted	(3, 593, 775)	3.593.775
Exercised		(2.258.396)
Surrendered		(7,243)
Lapsed	467,773	(475,107)
Balance, December 31, 1992	4,259,730	14,955,760
Shares authorized	4.661.859	
Granted	(5,464,022)	5,464,022
Exercised		(1.264,638)
Lapsed	787,946	(790,981)
Balance, December 31, 1993	4,245,513	18,364,163

At December 31, 1993, there were exercisable options outstanding to purchase 9,921,640 shares of common stock at prices ranging from \$10.94 to \$87.31 per share. Shares of common stock under option were exercised at prices ranging from \$9.44 to \$56.13 in 1993, from \$9.34 to \$76.38 in 1992 and from \$6.43 to \$65.50 in 1991. There were 17,644 warrants at December 31, 1993 to acquire shares of the company's common stock at an exercise price of \$18.83 per share, expiring on December 31, 1994.

At December 31, 1993, 29,372,266 shares of common stock were reserved for issuance pursuant to stock plans, options and warrants, and conversions of preferred stock.

Attached to each outstanding share of the company's common stock is one Right. The Rights will be exercisable if a person or group acquires beneficial interest of 15% or more of the company's outstanding common stock, or commences a tender or exchange offer for 15% or more of the company's outstanding common stock. Each Right will entitle stockholders to buy one one-thousandth of a share of a new series of participating preferred stock of the company at an exercise price of \$200. The Rights will expire on December 18, 1997. In the event of certain merger, sale of assets or self-dealing transactions, each Right will then entitle its holder to acquire shares having a value of twice the Right's exercise price. The company may redeem the Rights at \$.01 per Right at any time until the 15th day following public announcement that a 15% position has been acquired.

Note 16 Leases

Minimum rental commitments under all noncancellable operating leases, primarily real estate, in effect at December 31, 1993 were:

Years Ending December 31.

(in millions of dollars)

1993	\$120
1995	100
1996	80
1997	65
1998	20
Later years	322
Total minimum payments	743
Less total minimum sublease rentals	195
Net minimum rental commitments	\$548

Operating lease rental expense (net of sublease rental income of \$21 million in 1993, \$20 million in 1992 and \$21 million in 1991) was \$142 million in 1993, \$141 million in 1992 and \$142 million in 1991.

Note 17 Segment Information

The company's products are reported in four industry segments as follows:

<u>Pharmaceutical Products</u> prescription medicines, mainly cardiovascular drugs and anti-infectives, which comprise about forty percent and twenty-five percent, respectively, of the segment's sales, anti-cancer and central nervous system drugs, diagnostic agents and other pharmaceutical products.

Medical Devices — orthopaedic implants, which comprise about forty percent of the segment's sales, ostomy and wound care products, surgical instruments and other medical devices.

Nonprescription Health Products — infant formulas and other nutritional products, which comprise about sixty-five percent of the segment's sales, analgesics, cough/cold remedies and skin care products.

<u>Toiletries and Beauty Aids</u> haircoloring and hair care preparations, which comprise about sixty-five percerbing segment's sales, deodorants, anti-perspirants and occurry appliances.

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Unallocated expenses principally consist of general administrative expenses and net interest income, and in 1992 include a portion of the charge for restructuring. Other assets are principally cash and cash equivalents, time deposits and marketable securities. Inter-area sales by geographic area for each ϕ^{e} the three years ended December 31, 1993, 1992 and 1994, respectively, were: United States—\$918 million, \$915 million and \$807 million; Europe, Mid-East and Africa—\$504 million,

\$382 million and \$448 million; Other Western Hemisphere— \$41 million, \$36 million and \$28 million; and Pacific—\$43 million, \$26 million and \$30 million. These sales are usually billed at or above manufacturing costs.

Net assets relating to operations outside the United States amounted to approximately \$1,511 million, \$1,369 million and \$1,323 million at December 31, 1993, 1992 and 1991, respectively.

Industry Segments		Net Sale.	8		Profit		Yea	ir-End Ass	CIS
(in millions of dollars)	1993	1992	1991	1993	1992	^(b) 1991	1993	1992	1991
Pharmaceutical Products Medical Devices	\$ 6,524 1,693	\$ 6,313 1,665	\$ 5,908 1,559	\$2,133 (24)	\$1,584 305	\$1,844 354	\$4,628 2,030	\$4,622 1,063	\$4,215
Nonprescription Health Products Toiletries and Beauty Aids	1,964 1,232	1,959 1,219	1,901 1,203	463 163	268 10	435 203	872 548	839 547	827 745
Net sales, operating profit and assets	\$11,413	\$11,156	\$10,571	\$2,735	\$2,167	\$2,836	\$8,078	\$7,071	\$6,820
Geographic Areas		Net Sale:			Profit		Yea	ur-End As	sets
(in millions of dollars)	1993	1992	1991	1993	1992	d 1991	1993	1992	1991
United States Europe, Mid-East and Africa Other Western Hemisphere Pacific Inter-area eliminations	\$ 7,645 3,062 987 1,225 (1,506)	\$ 7.362 3,163 939 1,051 (1,359		\$1,777 591 197 194 (24)	\$1,467 534 138 86 (58)	\$2,016 641 171 97 (89)	\$ 5,591 1,708 443 829 (493)	\$ 4,587 1,813 426 717 (472)	\$4,430 1,858 424 689 (581
Net sales, operating profit and assets	\$11,413	\$11,156	\$10,571	2,735	2,167	2,836	8,078	7,071	6,820
Unallocated expenses and other assets				(164)	(180)	(52)	4,023	3,733	2,596
Earnings from continuing operations before inc	come taxe	s and tota	al assets	\$2,571	\$1,987	\$2,784	\$12,101	\$10,804	\$9,416
Industry Segments				Capita	l Expen	ditures	D	henreciatio	141

Industry Segments	Capite	il Expen	iditures	1	Depreciati	on
(in millions of dollars)	1993	1992	1991	1993	1992	1991
Pharmaceutical Products	\$379	\$426	\$402	\$194	\$186	\$145
Medical Devices	55	84	81	35	34	30
Nonprescription Health Products	81	70	54	34	28	30
Toiletries and Beauty Aids	23	34	37	24	28	26
Identifiable industry totals	538	614	574	287	276	231
Other management of the second	42	40	59	21	19	15
Consolidated totals	\$580	\$654	\$633	\$308	\$295	\$246

© The 1993 operating profit of the Medical Devices segment included the special charge for pending and future product liability claims of \$500 million

³⁰ The 1992 operating profit of the company's industry segments included the charge for restructuring as follows. Pharmaceutical Products – \$371 million; Medical Devices – \$155 million; Nonprescription Health Products – \$150 million; and Toiletries and Beauty Aids – \$150 million.

 The 1993 operating profit of the United States included the special charge for pending and future product liability claims of \$500 million.

 The 1992 earnings from continuing operations before income taxes included the charge for restructuring as follows: United States – \$595 million; Europe, Mid-East and Africa – \$134 million; Other Western Hemisphere – \$51 million; Pacific – \$46 million; and anallocated expenses – \$64 million.

Note 18 Contingencies

Various lawsuits, claims and proceedings of a nature considered normal to its businesses are pending against the company and certain of its subsidiaries. The most significant of these are described below.

As of December 31, 1993, approximately 10,000 plaintiffs have filed suit against the company, its subsidiary. Medical Engineering Corporation, and certain other subsidiaries, in federal and state courts and in certain Canadian provincial courts, alleging damages for personal injuries of various types resulting from polyurethane covered breast implants and smooth walled breast implants. Certain of these cases are class actions which seek to allege claims on behalf of all breast implant recipients. All federal court actions have been consolidated for pre-trial proceedings in federal District Court in Birmingham. Alabama. See Note 2 relating to the special charge recorded in connection with this litigation.

The company is a defendant in a number of actions brought against it and other pharmaceutical companies in federal and state courts by the children or grandchildren of women who ingested diethylstilbestrol (DES), a product which had been, but is no longer, manufactured or sold by an affiliate of the company.

The company is a defendant in several state antitrust actions (one of which has been removed to federal court) filed on behalf of purported classes of individual purchasers of infant formula products, and by one State Attorney General, alleging a conspiracy regarding pricing of infant formula products and other violations of state antitrust or deceptive trade practice laws and seeking treble damages, statutory and civil penalties and injunctive relief. Six other state Attorneys General and the Canadian Bureau of Competitive Policy have commenced or stated an intention to commence investigations of pricing practices and marketing activities in the infant formula industry. The company is also a defendant in two federal court actions, one filed by the State of Louisiana on behalf of indirect purchasers of infant formula alleging a conspiracy regarding pricing of infant formula products and seeking treble damages, civil penalties and injunctive relief and the other filed by Nestle Food Company alleging anticompetitive practices in violation of federal and state antitrust or other laws and seeking treble damages, civil penalties and injunctive relief.

As of December 31, 1993, the company was a defendant with other major pharmaceutical manufacturers and drug wholesalers in 25 actions brought in various federal courts by retail pharmacies, individually or as representatives of purported class actions, which allege anticompetitive or unfair practices in the pricing and distribution of pharmaceuticals in violation of federal and state laws and which seek treble damages and injunctive relief. As of December 31, 1993, the company was also a co-defendant in four state court actions in California brought by retail pharmacies, individually or as representatives of purported class actions, which allege discrimination in the pricing of pharmaceuticals in violation of California laws and which seek treble damages and injunctive relief.

The company is a defendant in a purported class action filed in June 1992 in the U.S. District Court for the Southern District of New York alleging violations of federal securities laws and regulations in connection with, among other things, earnings projections.

The company, together with others, is a party to, or otherwise involved in, a number of proceedings brought by the Environmental Protection Agency under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or Superfund) directed at the cleanup of Superfund sites.

While it is not possible to predict with certainty the outcome of these cases, it is the opinion of management that all lawsuits, claims and proceedings which are pending against the company are without merit or will not have a material adverse effect on the company's consolidated financial position.

Report of Management

Report of Independent Accountants

Management is responsible for the accompanying consolidated financial statements, which are prepared in accordance with generally accepted accounting principles. In management's opinion, the consolidated financial statements present fairly the company's financial position, results of operations and cash flows. In addition, information and representations included in the company's Annual Report are consistent with the financial statements.

The company maintains a system of internal accounting policies, procedures and controls intended to provide reasonable assurance, given the inherent limitations of all internal control systems, at appropriate costs, that transactions are executed in accordance with company authorization, are properly recorded and reported in the financial statements, and that assets are adequately safeguarded. The company's internal auditors continually evaluate the adequacy and effectiveness of this system of internal accounting policies, procedures and controls, and actions are taken to correct deficiencies as they are identified. The company performs an ongoing assessment of its internal control system and has met, and continues to meet at December 31, 1993, the criteria recommended by the Committee of Sponsoring Organizations of the Treadway Commission.

The Audit Committee of the Board of Directors is comprised solely of non-employee directors and is responsible for overseeing and monitoring the quality of the company's accounting and auditing practices. The Audit Committee meets several times during the year with management, the internal auditors and the independent accountants to discuss audit activities, internal controls and financial reporting matters. The internal auditors and the independent accountants have full and free access to the Audit Committee.

The appointment of Price Waterhouse as the company's independent accountants by the Board of Directors was ratified by the stockholders. Price Waterhouse's Report to the Board of Directors and Stockholders of Bristol-Myers Squibb Company appears on this page.

Richard L. Gelb Chairman of the Board

Charles A. Heimbold, Jr. President and Chief Executive Officer

Michael E. Autera Executive Vice President and Chief Financial Officer To the Board of Directors and Stockholders of Bristol-Myers Squibb Company

In our opinion, the accompanying consolidated balance sheet and the related consolidated statements of earnings and retained earnings and of cash flows present fairly, in all material respects, the financial position of Bristol-Myers Squibb Company and its subsidiaries at December 31, 1993, 1992 and 1991, and the results of their operations and their cash flows for the years then ended in conformity with generally accepted accounting principles. These financial statements are the responsibility of the company's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with generally accepted auditing standards which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for the opinion expressed above.

As discussed in Note 14 to the financial statements, effective January 1, 1992, the company adopted Statement of Financia! Accounting Standards No. 106, Employers' Accounting for Postretirement Benefits Other Than Pensions.

rice Waterhouse

1177 Avenue of the Americas New York, New York 10036

January 20, 1994

Ten-Year Financial Summary

	(dollars in millions, except per share amounts)	1993	1992	1991
Operating Results	Net Sales	\$11,413	\$11,156	\$10,571
	Expenses: Cost of products sold Marketing, selling and administrative Advertising and product promotion Research and development Other*	3,029 3,098 1,255 1,128 332	2.857 3.075 1.291 1.083 863	2,717 2,946 1,263 983 (122)
		8,842	9,169	7,787
	Earnings from Continuing Operations Before Income Taxes	2,571	1,987	2,784
	Provision for income taxes	612	449	793
	Earnings from Continuing Operations	\$ 1,959	\$ 1,538	\$ 1,991
	Dividends paid on common and preferred stock	\$ 1,485	\$ 1,428	\$ 1,249
	Earnings from continuing operations per common share* Dividends per common share	3.80 2.88	2.97 2.76	3.82 2.40
Financial Position at December 31	Current assets Property, plant and equipment—net Total assets	\$ 6,570 3,374 12,101	\$ 6,621 3,141 10,804	\$ 5,567 2,936 9,416
	Current liabilities Long-term debt Total liabilities	3,065 588 6,161	3,300 176 4,784	2,752 135 3,621
	Stockholders' equity	5,940	6,020	5,795
	Average common shares outstanding (in millions)	515	518	521
	Book value per common share	\$ 11.61	\$ 11.62	\$ 11.16

*In 1993, includes a special charge for pending and finture product liability claims of \$500 million before taxes, \$310 million after taxes, or \$.60 per share. In 1992, includes a provision for restructuring of \$890 million before taxes, \$570 million after taxes, or \$1.10 per share. In 1989, includes a provision for integrating businesses of \$855 million before taxes, \$693 million after taxes, or \$1.32 per share.

Bristol-Myers Squibb Company

1990	1989	1988	1987	1986	1985	1984
\$9,741	\$8,578	\$7,986	\$7,044	\$6,163	\$5,393	\$5,029
2.665	2.418	2.255	2 096	1.905	1.769	1.600
2.717	2.461	2 310	2 0 2 3	1 725	1.404	1,099
1.189	1.073	1.055	070	851	760	710
873	781	680	556	467	405	227
(136)	661	(119)	(165)	-407	(127)	337
7 308	7 204	6 101	5 490	4.000	(137)	(90)
7,206	1,394	0,181	0,489	4,992	4,291	4,050
2,433	1,184	1,805	1,555	1,171	1,102	979
742	496	603	533	420	404	362
\$1,691	\$ 688	\$1,202	\$1,022	5 751	\$ 698	\$ 617
\$1,116	\$ 722	\$ 641	\$ 526	\$ 404	\$ 342	\$ 284
3.22	1.32	2.20	1.00	1.50	1.20	1.17
2.12	2.00	1.68	1.40	1.06	901	1.15
\$5,670	\$5.552	\$5 422	\$5,006	\$4.264	\$3.641	\$3.139
2 631	2 350	2 188	1 027	1 716	1 524	1 226
9,215	8,497	8.273	7.514	6 592	6.046	5 269
					0,040	24000
2,821	2.659	2.613	2,129	1.766	1.541	1.266
231	237	284	279	327	299	297
3,797	3.413	3.325	2,759	2.398	2 093	1 759
						1,100
5,418	5,084	4,948	4,755	4,194	3,953	3,510
525	523	525	538	543	542	538
\$10.34	\$ 9.67	\$ 9.49	\$ 8.88	\$ 7.84	\$ 7.30	\$ 6.51

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Principal Products

Pharmaceuticals

Cardiovascular Therapy

Atenolol Capoten Capozide Corgard Corzide Monopvil Pravachol Questran Sotacor*

Cancer Therapy

BiCNU Blenoxane CeeNU Cytoxan Hydrea Ifex Lysodren Megace Megace Oral Suspension Mesnex Mutanycin Mycostatin Pastilles Paraplatin Platinol TAXOL Texlac VePesid Vianon

Infectious Disease Therapy

Amikin Azactam Betapen VK Cefaperos* Cefatrexvl* Cefail Cephalexin Durivef Dynapien Fungizone Maxipime* Nafell Penicillin G Sodium and Potassium Polymox Principen/Polycillin N Stapheillin Sumvein

*Currently marketed only outside the U.S.



New Pharmaceutical Products

New pharmaceuticals introduced or approved around the world during the past year included.

· BuSpar, in Bahrain, Lebanon and Tunisia, . Capoten, approved for two additional indications, use following heart attack in patients with left ventricular dysfunction, and the treatment of diabetic nephropathy, in the U.S., *Cefzil, in Costa Rica, Greece, Guatemala, Honduras, Indonesia, Mexico, Peru and Venezuela; . Dovonex, a vitamin D3 analogue to treat moderate psoriasis, in the U.S. · Maxipime, an injectable cephalosporin, in France as Axepim. and Sweden: * Megace, in France. Pakistan and Peru; Megace Oral Suspension, approved for treatment of anorexia, cachexia or an unexplained significant weight loss in patients with AIDS, in the U.S.: · Monopril, in Argentina, Austria, Bahrain, Colombia, Indonesia, Luxembourg, the Netherlands. Portugal, Qatar, Spain and the United Arab Emirates: . Paraplatin, in Costa Rica, Peru and Thailand; ·Pravachol. in Benin, Indonesia. Morocco, Niger, Norway and Switzerland; ProHance, in Canada and Switzerland; . Questran, in Colombia, the Sudan, Thailand and the United Arab Emirates; ·SERZONE, an antidepressant, in the U.K. as Dutonin; . Stadel NS, in Hong Kong;

Tobramycin Velosef VIDEX Zolicef

Central Nervous System Therapy

BuSpar Desyrel Prolixin SERZONE* Stadol Stadol NS

Dermatological Therapy

Dovonex Exelderm Halog Kenalog Lac-Hydrin 12% Moisturel Mycostatin Ultravate Westcort

Diagnostics

Isovue Isovue-M Oragrafin ProHance Renografin Sinografin

Women's Health Care Products

Estrace Natalins Rx Ow:on Vagistat-1

Other Pharmaceutical Products

Kenacort* Mucomyst Naldecon Pemilaston*



New Pharmaceutical Products

TAXOL, approved for the additional indication of metastatic breast cancer, in Austria, Canada, Cyprus and Israel, and for refractory ovarian cancer, in Argentina, Australia, Austral, Belgium, Brazil, Denmark, France, Germany, Greece, Israel, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Russia, South Africa, Spain, Sweden, Switzerland and the U.K., *VePesid*, in Hungary, Malta, Pakistan, Peru, Romania and

Pakistan, Peru, Komania and Russia; • VTDEX, approved in Austria, Belgium, Benin, Chile, Colombia, Denmark, Finland, Guatemala, Guinea, Ireland, Korea, Luxembourg, Mali, Mexico, Niger, Singapore, Taiwan and Uruguay, and launched in Austria, Denmark, Italy, the Netherlands and Spain

Consumer Products

Nonprescription Medicines, Anti-perspirants and Deodorants

Ammens Medicated Powder Backache from the makers of uprin Ban Ban Clear A.P. Ban for Men Clear A.P. Bufferin Bufferin AF Nite Time Chase* Contrex Contrex A/S Day/Night Comtrex Comtrex Hot Flu Relief Contrex Non-Drowsy Liqui-Gels Counternain* Depon* Aspirin Free Excedrin Aspirin Free Excedrin Dual Excedrin Excedrin 1B Excedrin PM Simus Excedrin Fisherman's Friend 4-War Graneodin* Therapeutic Mineral Ice Therapeutic Mineral Ice Plus Mum Mum Dermis* Mum for Men" Mum 21* NoDos Nuprin

Skin Care Products

Alpha Keri Fostex Keri KeriCori 10 Cream PreSun Sea Breeze



New Nonprescription Medicines, Anti-perspirants, Deodorants and Skin Care Products

New nonprescription medicines, anti-perspirants, deodorants and skin care products launched over the past year included:

In the U.S. *Bon SENSITIVE TOUCH Antiperspirant Deodorant: *Day & Night Contrex Caplet/Liquid: *Kers Moisturizing Cream; *NoDoz Chewable; *Sea Breeze Breezers: *Theragran Antioxidant.

In the U.S. and Canada: *Ban Clear A.P. and Ban for Mon Clear A.P.

n addition: Butherin Orea

Bufferin Green, Bufferin Motion Sickness Remedy and Sea Breeze Deodorant Body Shampoo and Facial Washing Gel, in Japan;
Cointerpain Cool External Analgesic, in Thaihand; Depon Syrup for Children, in Greece; Keri Moisturizing Cream and Keri Silky Smooth, in Australia; Keri Fragrance Free Lotion, Keri Silky Smooth and Sea Breeze Toner, in Canada; Mum Body Responsive Aerosol Anti-perspirant, in the U.K.; Mum Seattirze, in Australia, Hong Kong and New Zealand.

Haircoloring and Hair Care Products

Attitudes Basic White Powder Lighteners Beautiful Collection Born Blonde Brights by Nice 'n Easy Clairol ColorHold Color Care System Condition 3-in-1 hair care products Final Net Hair Sprays Finale* Frost & Tip. Kaleidovolors Lasting Color by Loving Care Logics Colorcremes Logics ColorFacts Logics Color Refresher Logics COLOReserve System Loving Care Men's Choice Miss Clairol Miss Clairol Professional Motif* Nice 'n Easy Option Gradual and Instant Quiet Touch Hairpainting Shimmer Lights Summer Blonde Ultimate Blonde by Ultress Vitalis hair preparation line



New Haircoloring and Hair Care Products

New haircoloring and hair care products launched during the past year included

In the U.S.:

 Condition 3-in-1 Detangler Plus;
 Final Net No Alcohol Hair Spray;
 Glints Conditioning Color Enhancer; *Infusion 25* Fortifying Mousse and Spray Gel; *I.Logics ColorFacts; Men's Choice; Miss Clairol GRAY BUSTERS II, Miss Clairol Real Reds; *Second Nature Visids.*

In the U.S. and Canadac *Brights by Nice 'n Easy, *Claired ColorHold Color Care System; *Condition 3-in-1 Clean and Light Shampoo Plus; *Logics Color Refresher.

In Canada:

Attitudes: •Infusion 23 Ultra:
 Logics COLOReserve System.

In addition:

Bouquer Permanent Wave, in the U.K., *Clairol Anti-Dandruff 3-in-1 Shampoo, in Thailand; *Clairol Ultress Gel Colourant, in Greece;
Condition 3-in-1 Shampoo Plus, in Hong Kong, Malaysia, Singapore and Venezuela; *Condition 3-in-1 styling line, in Hong Kong, *Glints Conditioning Color Enfancer, in South Africa; *Infusion 23, in Australia and Saudi Arabia;
Lasting Color by Losing Care, in Australia, Greece, Hong Kong, New Zealand, Puerto Rico, Scandinavia, Thailand and the U.K., *Logics COLOReserve System, in Australia and New Zealand; *Lumnitze and Second Nature, in Japan; *Men's Choice, in Mexico.

Nutritional Products

Infant Formulas

Alactamil* Enfalac* Enfamil Enfapro* Gerber Baby Formula Gerber Soy Baby Formula Lactofree Metabolic formulas Nutramigen O-Lac* Pregestimil ProSchee

Enteral Nutritionals

Criticare Deliver 2.0 Isocal Lipisorb Respalor Specialty formulas Sustacal Sustacal Plus Traumacal Ultracal

Vitamin Products

Natalins (OTC) Theragran Vi-Flor/Vi-Sol pediatric vitamins

Other Nutritional Products

Boost* Nutrament Shape-UP* Sustagen



New Nutritional Products

New nutritional products launched during the past year included

In the U.S.:

 Deliver 2.0, high-calone and highnitrogen nutritionally complete liquid diet, *Lactofree, milk-based, lactose-free formula for infants who experience common feeding problems associated with lactose;
 Respalor, complete liquid formula specifically designed to meet the nutritional needs of the respiratory patient.

In additio

 Alacta Growing-Up formula for preschool children, in Tatwan,
 Isocal, in Indonesia; <a>Isocal
 Pudding and Isocal with Fiber, in Japan; <a>MaMa Sussagen, for pregnant and lactating women, in Hong Kong, and as MaMa Care, in the Philippines; <a>Next Step, a follow-on formula, in Canada; <a>O-Lac, in Portugal, Spain and Thailand;
 Sustacal, in Malaysia and Singapore.

Medical Devices

Orthopaedic Implants

Centralign Precoat Hip Prosthesis Collagraft Bone Graft Matrix ECT Internal Fracture **Fixation Systems** Fenlin Total Shoulder System Forte Distal Radius Plate System Herbert Bone Screw Systems Insall/Burstein II Modular Total Knee System Magna-Fx Cannulated Screw Fixation Systems MG II Total Knee System Modulock Posterior Spinal Instrumentation System MultiLock Hip Prosthesis

MultiPolar Bipolar Cup Statak Soft Tissue Attachment Devices

Torus External Fixation System Versa-Fx Femoral Hip Fixation System

Zimmer Anatomic Hip System ZMS Intramedullary Fixation System

Chronic Care Ostomy and Specialty Products

Active Life Flushaway one-piece closed-end flushable pouch AllKare/ConvaCare*

protective barrier wipe and adhesive remover wipe Convex line of products

marketed as *Durahesive* Wafer with *Convex-IT*, *Active Life* convex one-piece drainable and urostomy

- Durahesive and Stomahesive skin barriers
- Flexi-Trak small anchoring device

Little Ones pediatric ostomy products and Little Ones pediatric urine collector

One-piece ostomy pouches marketed as Active Life, Colodress,* Colohesive UltralStomadress Soft, Heodress,* Qualinex,* Unidress* and Urodress*



New Orthopaedic, Surgical and Patient Care Products

New orthopaedic, surgical and patient care products introduced during the past year included:

In the U.S.

 Anacomic Option Hip Prosthesis;
 Centralign Option Hip Prosthesis;
 Collagrafi Bone Graft Matrix, a bone graft alternative;
 Hall UltraPower Surgical Drill System;
 Insall/Burstein II Porous Posterior Stabilized Fernur;
 MG II Option Knee Replacement System;
 Trilogy Acetabular System;
 ZMS Humeral Nail.

In addition

• CD15 Controlled Distention Irrigation System, in Australia, •Hall SEG-CES Segmental Cement Extraction System, in Australia. Canada and European markets; •Hall Series 4 Large Bone Powered Surgical Instruments, in international markets; . Herbert-Whipple Bone Screw System, in international markets, • MG II Total Knee System, in Germany, Scandinavia, South Africa, South Korea and the U.K. Marchetti-Vicenzi Intramedullary Nail, in international markets: · MultiLock Hip Prosthesis in Italy, Singapore, South Korea and the U.K., Snyder Hemova

Autotransfusion System, in the U.S., Australia, Canada and European markets: • Spongiosa Hip, in international markets outside Germany; • Versa-Fx Femoral Hip Fixation System, in Japan; • ZMS Intramedullary Fixation System, in Japan. Two-piece ostomy products including Combinesive,* Gentle Touch postoperative system, Sur-Fit Flexible, Sur-Fit System and Surgicare System 2*

Patient Care and Wound Care Products

ALGODERM Calcium Alginate Dressing*

ATS 500/1500 Tourniquet Systems

CDIS Controlled Distention Irrigation System

DuoDERM line of wound care products, marketed as DuoActive,* Granuflex* or Varihesive* in some countries

Knee immobilizers

Orthopaedic Supports

Pulsavac Wound Debridement System

Snyder Hemovac Wound Drainage Systems and Snyder Hemovac Autotransfusion System

Unna-Flex, including Unna-Flex Plus Venous Ulcer Kit Venous ulcer management

products, marketed as Circulon System Step I Venous Uleer Kit and Circulon System Step II Venous Uleer Kit Zimmer Skin Grafting Systems

Powered Instruments

Hall Micro 100 and Hall Micro E Small Bone Powered Surgical Instruments
Hall Osteon and Ototome Otological Drill Systems
Hall Powered Sternum Saws
Hall Series 3, Series 4 and Versipower Large Bone Powered Surgical Instruments
Hall Surgitome E Oral/Maxillofacial Powered Surgical Instruments
Hall UltraPower Surgical Drill System

Hall Z-Serter Wire Driving System



New Ostomy and Wound Care Products

Ostomy and wound care products ntroduced in one or more markets round the world during the past /ear included

 Active Life Convex Urostomy Pouch: * Active Life Flushaway One Piece Closed-End Flushable Pouch. ALGODERM Calcium Alginate Dressing: • AllKure/ConsaCare Protective Barrier Wipe and Adhesive Remover Wipe. · Circulon System Step 1 and Step II Venous Ulcer Kits; . Colohesive UltralStomadress Soft; Combinesive Post-Op Drainable Pouch: · Combinesive 2 Stomahesive Water, • DuoDERM CGF Border Dressing *DuoDERM Extra Thin Dressing: . DuoDERM Extra Thin Spots: . Durahesive Wafer with Convex-IT; Flexi-Trak Anchoring Device; *Headress Plus, *Little Ones Pediatric Urine Collector: Stomahesive Flexible Wafer; · Sur-Fit Flexible Pre-Cuts; *Unidress, *Unna-Flex ... Ad Linna-Flex Plus Venous Ulcer Kit; Urodress,

 Visiband Transparent

Least Invasive Surgery Products

Bi-Ter Endoscopic Bipolar Forceps CTS Relief Kit intra Are Arthroscopy Power System IntraArc Sterling Arthroscopy Blade System LIS8170 Self-Diagnostic Camera L1S8430 Xenon Light Source Low Pressure Irrigation System and Quick-Connect Tubing Set Paramax ACL Guide Set Pinn ACL Guide Set Revo Rotator Cuff Repair System Sensatec Endoscopic Manual Shutt Arthroscopy Instrumentation

Other Medical Devices

Hall SEG-CES Segmental Cement Extraction System Osteobond Vacuum Mixing System Porta-Gas Nitrogen Delivery System



New Least Invasive Surgery Products

New least invasive surgery products launched over the past year in the U.S. included:

Bi-Tec Endoscopic Bipolar Forceps; *LIS8170* Video Camera System; *Merlin* Shaver Blades; *Pinn*. ACL Anterior Cruciate Guide Set; *Revo* Cancellous Screw, for shoulder reconstruction.

Programs of Public Interest

Bristol-Myers Squibb Tops \$45 Million In Unrestricted Biomedical Research Grants

nitiated in 1977, the Bristol-Myers Squibb Unrestricted Biomedical Research Grants Program thus far has committed over \$45 million to support research in seven areas: cancer, cardiovascular disease, neuroscience, nutrition, pain, orthopaedics and infectious disease.

Each program consists of three elements: nostrings-attached research grants to medical schools and research institutions; an annual award for distinguished achievement to an individual researchcr, and an annual symposium.

In 1993, the 16th Annual Award for Distinguished Achievement in Cancer Research was presented to Dr. Gianni Bonadonna, of the Istituto Nazionale Tumori in Milan, Italy, for his innovative studies of breast cancer, and to Dr. Bernard Fisher, of the University of Pittsburgh, for his studies of the biology of breast cancer.

To date, 33 grants, representing a commitment of more than \$16 million, have been awarded to 30 cancer research centers.

The company's cardiovascular research grants program has provided institutional grant commitments of more than \$4 million since it began in 1989. In the past year, the third

annual Bristol-Myers Squibb Award for Distinguished Achievement in Cardiovascular Research was presented to Dr. Eugene Braunwald, of Harvard Medical School and Brigham and Women's Hospital, for his research leading to revolutionary improvements in the treatment of myocardial infarction, and to Dr. William B. Kannel, of Boston University School of Medicine, for uncovering the modifiable risk factors to cardiovascular disease.

The neuroscience research grants program marked its sixth year of unrestricted grants this year, representing a commitment of \$6.2 million. The 1993 Bristol-Myers Squibb Award for Distinguished Achievement in Neuroscience Research was presented to Dr. Sten Grillner, of the Karolinska Institutet in Stockholm, Sweden, for his contributions to understanding the cellular mechanisms of vertebrate locomotion.

More than \$6 million, representing 27 grants, has been committed to support biomedical research in nutrition since 1980. Dr. Ancel Keys, of the University of Minnesota School of Public Health, and Dr. David Mark Hegsted, of the New England Regional Primate Research Center of Harvard

Medical School and Harvard School of Public Health, shared the 1993 Bristol-Myers Squibb/ Mead Johnson Award for Distinguished Achievement in Nutrition Research. Dr. Keys was honored for his pioneering work in understanding the relationships between dietary fatty acids and cholesterol metabolism, and Dr. Hegsted was recognized for his work in nutrition science and laying the groundwork for "common sense" nutritional guidelines.

Since 1988, the pain research grants program has received \$3.25 million in no-strings-attached funding. Dr. William D. Willis, Jr., of the University of Texas Medical Branch at Galveston, received the sixth annual Bristol-Myers Squibb Award for Distinguished Achievement in Pain Research for his work on the mechanisms of pain.

The orthopaedic research grants program, begun in 1983 and expanded in 1987, and sponsored by Bristol-Myers Squibb and Zimmer in conjunction with the Orthopaedic Research and Education Foundation, has awarded \$4 million in unrestricted funding since its inception.

Dr. Marshall R. Urist, of the University of California, Los Angeles, School of Medicine, received the sixth annual Bristol-Myers Squibb/ Zimmer Award for Distinguished Achievement in Orthopaedic Research for his pioneering contributions to the biochemistry and physiology of bone.

In 1993, the third annual Bristol-Myers Squibb Award for Distinguished Achievement in Infectious Disease Research was presented to Dr. Robert M. Chanock, of the Laboratory of Infectious Disease at the National Institute of Allergy and Infectious Diseases, National Institutes of Health, for his fundamental research on human respiratory infections and for the development of vaccines that prevent these diseases.

Total funding for the unrestricted infectious disease grants program since it began is \$5.3 million.

Equal Employment Opportunity

Bristol-Myers Squibb is dedicated to the fair representation of women and minorities at all levels of the company. Currently, 36.4 percent of the company's professional and managerial employees in the U.S. are women, and 14.8 percent are minority group members. For a copy of the company's most recent report on its equal opportunity policy and initiatives, write to Communications Services, Bristol-Myers Squibb Company, 345 Park Avenue, New York, NY 10154.

Programs for Women and Minorities

At work and in the community, Bristol-Myers Squibb continues to support programs to help women, minorities and the disabled in their careers. Funding is provided to schools to support scholarships and fellowships for women and minorities.

In April, the company hosted Kendra Jenkins (left) and Jenna Caldarella, both nine years old, and other children at its corporate headquarters during a special "Take Your Daughter... Your Son... or a Special Child to Work Day."



and the company contributes to community-based organizations that help women, minorities and the disabled further their careers.

Environmental Programs

Bristol-Myers Squibb is committed to minimizing the environmental impact of its products and activities and to continuously improving its envi-



The economic and environmental benefits of using prodnet life cycle management in the manufacture of the Finalé Pump and Spray System at the company's plant in Cramlington in the U.K. include an annual cost savings by eliminating 40 tons of corrugated packaging as well as a yearly 52-ton reduction of volatile organic compound emissions ronmental programs. The company's commitment goes beyond recognizing environmentally responsible management as "the right thing to do." It acknowledges environmentally responsible management to be a competitive imperative.

In 1990, Bristol-Myers Squibb revised its Corporate Environmental Protection Policy to base it on the principles of product life cycle management. This policy is the foundation for evaluating and minimizing the environmental impact of all business activities. Since revising the policy, Bristol-Myers Squibb has implemented a number of environmentally sensitive corporate guidelines

addressing specific business functions including packaging (1990), purchasing (1991), transportation (1992), acquisitions and divestitures (1992) and contract manufacturing (1993).

Bristol-Myers Squibb also is contributing to helping resolve the environmental challenges we face as a society - on a local, national and global basis. In 1990, it accepted the Coalition of Northeastern Governors' Challenge to reduce packaging wastes. The following year, it endorsed the Business Charter for Sustainable Development a code of environmental ethics supported by over

1.100 companies, labor and environmental groups, and intergovernmental agencies around the world. That same year, the company became a voluntary participant in the U.S. Environmental Protection Agency's 33/50 program to reduce toxic releases by 50 percent by 1995. The company is well ahead of its interim goal for that program.

Bristol-Myers Squibb believes that an environmentally literate public is essential to meeting the environmental challenges we face. It is an active participant in several initiatives to enhance public awareness and to develop sound environmental public policy.

A detailed evaluation of the company's environmental program is included in its "Report on Environmental Progress." Copies of the report are available by writing to the Office of Environmental Affairs, Occupational Health and Safety, Bristol-Myers Squibb Company, 345 Park Avenue, New York, NY 10154.

Work Life/Home Life Programs

The company is committed to providing employees with the flexibility and support they may need to achieve a balance between their work and family responsibilities. A resource and referral service helps employees with counseling, information and referrals to community services for elder care and child care. A prenatal and infant development program encourages good health practices and sound decision-making during pregnancy. The Employee Assistance Program helps eraployees and family members resolve personal difficulties, such as substance abuse, emotional problems and domestic tensions. An Adoption Assistance Program helps employees defray some of the costs of adoption. while the Family Leave Program provides employees with up to 16 weeks leave without pay to care for a newborn or newly adopted child, ill relatives or other dependents. Bristol-Myers Squibb supports employee involvement in education with information on how working parents can effectively support their children's education and with scholarships and access to low-cost loans for posthigh school education. During the year, the company opened its offices for a day to children as part of its "Take Your Daughter... Your Son ... or a Special Child to Work Day.

Alternatives to Animal Testing

Bristol-Myers Squibb is committed to reducing its reliance on animal testing through the development and use of non-animal tests and to providing the highest level of care for animals whose use remains unavoidable.

To date, the company has funded over \$1 million in grants to institutions involved in developing non-animal testing methods and spends several times that amount annually in its own laboratories developing, validating and using non-animal tests. Over 100 non-animal testing methods are currently in use c1 the company.

Over 99 percent of the animals used in its laboratories support the development and safety testing of pharmaceutical and other health care products.

Bristol-Myers Squibb Foundation

The Bristol-Myers Squibb Foundation, the company, its subsidiaries and divisions contributed more than \$22 million to charitable causes in 1993. Health-related, medical research and community service organizations received 44 percent of combined company and Foundation contributions. Educational institutions and education-related programs received 36 percent, while civic and cultural activities received 20 percent.

Directors and Officers

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Louis W. Sullivan, M.D.^{1,2} President Morehouse School of Medicine

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Transfer Agents and Registrars

Chemical Bank 450 West 33rd Street New York, New York 10001 Telephone: 800-356-2026 (Common and Preferred Stock)

Chemical Trust Company of California 50 California Street - 10th Floor San Francisco, California 94111 Telephone: 800-356-2026 (Common and Preferred Stock)

New York Stock Exchange Symbol: BMY

Independent Accountants

Price Waterhouse 1177 Avenue of the Americas New York, New York 10036 Telephone 212-596-7000

Division 800 Numbers

Bristol-Myers Products 800-468-7746

Bristol-Myers Squibb U.S. Pharmaceuticals
800-736-0003 (Cardiovascular Access Program)
800-332-2056 (Customer Relations)
800-321-1335 (Drug Information)
800-872-8718 (Oncology Reimbursement Assistance Program)
800-TAXOL-US (TAXOL Information Center)

800-788-0123 (VIDEX, Megace Oral Suspension Reimbursement Assistance Program)

800-662-7999 (VIDEX, Zerit Information Center) 800-842-8036 (Zerit Parallel Track Program)

Clairol

800-223-5800 (Consumer Hotline)
800-447-7262 (Questions in Spanish)
800-221-4900 (Professional Hotline)
800-356-4427 (Legics Professional Hotline)

ConvaTec

800-422-8811 (Professional Services)

Mead Johnson Nutritional Group 800-247-7893 (Adult Nutritionals) 800-828-9119 (Gerber Baby Formulas) 800-421-4221 (Gerber Breastfeeding Information) 800-222-9123 (Infant Formulas)

Squibb Diagnostics 800-257-5181 (Professional Services)

Westwood-Squibb Pharmaceuticals 800-333-0950

Zimmer 800-613-6131 Annual Meeting of Stockholders Tuesday, May 3, 1994 9.45 A.M. Hotel duPont 11th and Market Streets Wilmington, Delaware 19801

If you would like a copy of the company's Form 10-K (1993 annual report filed with the Securities and Exchange Commission), you may obtain it without charge by writing to: Secretary Bris'ol-Myers Squibb Company 345 Park Avenue New York, New York 10154

Quarterly Reports

Bristol-Myers Squibb Company mails quarterly reports to stockholders of record and to other persons who request copies. If your shares are not registered in your name but are held at a broker, bank or other intermediary, you can receive quarterly reports if you send a written request for such reports and provide your name and address to Chemical Bank. Your request should be sent to:

Chemical Bank P.O. Box 3091 GPO Station New York, New York 10116-3091

Dividend Reinvestment Program

A Dividend Reinvestment Program is available for Bristol-Myers Squibb registered stockholders (certificate must be in your name) who own 50 or more shares of the company's common stock. The program offers a safekeeping feature and once-a-week cash investment opportunity in which you may purchase up to \$10,000 worth of the company's common stock a month. If you are eligible and would like an enrollment card and brochure, please write to: Chemical Bank Dividend Reinvestment P.O. Box 24850 Church Street Station New York, New Yor, 10242-4850

Direct Deposit of Dividends

Bristol-Myers Squibb Company offers registered stockholders a service in which their dividend payments can be sent electronically to a commercial bank, savings and loan institution or credit union, and credited to their account on the dividend payment date. If you are interested in this service, please call Chemical Bank at 1-800-356-2026 for an enrollment card and brochure.

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Bristol-Myers Squibb Company
ATTN: George S. Nagle, Director Environmental Health & Safety
Pharmaceutical Research & Development Division
P.O. Box 5100
5 Research Parkway
Wallingford, Connecticut 06492

Dear Mr. Nagle:

SUBJECT: FINANCIAL ASSURANCE, DEMAND FOR INFORMATION

Our records show that as of July 27, 1990, you were required to comply with 10 CFR 30.35. 10 CFR 30.35 requires that licensces, authorized to possess amounts of licensed material listed in the above referenced license, submit a decommissioning funding plan or a certificate of financial assurance for decommissioning. The NRC received your initial response to this requirement. However, you have failed to respond to the deficiency letter dated August 30, 1993 within the required time period. You, therefore, appear to be in violation of this requirement.

The Commission considers noncompliance with 10 CFR 30.35 to be a significant regulatory concern because of the importance of assuring that licensees, and not the public, pay for decommissioning of licensed facilities. To determine whether your license should be modified, suspended or revoked, or whether other enforcement action is appropriate, you are required to respond in writing, and under oath or affirmation, and within 30 days of the date of this letter with the information described in the enclosed Demand for Information.

Your response should be addressed to Region I at the above address and should be clearly marked, "Response to Demand for Information."

CERTIFIED MAIL RETURN RECEIPT REQUESTED

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REGION I

IE:07
The responses directed by this letter and the enclosed Demand for Information are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL 96-511.

If you have any questions concerning this Demand, please contact Anthony Dimitriadis of my staff at (610) 337-6953.

Sincerely,

Original Signed By:

Ronald R. Bellamy, Chief Nuclear Materials Safety Branch Division of Radiation Safety and Safeguards

Enclosures: 1. Demand for Information

cc: w/Enclosure 1 Public Document Room (PDR) Nuclear Safety Information Center (NSIC) State of Connecticut

bcc:			
A. Dimitriadis, RI			
M. Shanbaky, RI			
R. Beliamy, RI			
W. Hehl, RI			
D. Holody, RI Region 7 Docket	Roam (w/concurr	rences) num	
DRSS:RF	DRSS:RI	DRSS:RI	DR6S:RI
Dimitriadis_	Shanbaky	Bellamy	Hehl
03/8/194	03/8/194	03/8/94	03/4/94

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UNITED STATES NUCLEAR REGULATORY COMMISSION

In the matter of) Docket No. 030-29266 Bristol-Myers Squibb Company) License No. 06-27843-02

DEMAND FOR INFORMATION

I

Bristol-Myers Squibb Company, (The Licensee) holds NRC License No. 06-27843-02 (the License), issued by the Nuclear Regulatory Commission (the NRC or Commission) pursuant to 10 CFR 30. The license authorizes the licensee to use and possess byproduct material in accordance with the terms and conditions specified therein and the applicable NRC regulations.

Π

As of July 27, 1990, the Licensee was required to comply with 10 CFR 30.35 of the Commission's regulations, which requires licensees authorized to possess certain quantities of licensed material to submit either a decommissioning funding plan or a certification of financial assurance for decommissioning in the amount prescribed in 10 CFR 30.35, in accordance with the criteria set forth in that section. The License authorizes such quantities and the NRC staff has not yet received the Licensee's complete response to this requirement. Therefore, the Licensee appears to be in violation of this requirement.

The violation of the requirements of 10 CFR 30.35 is a significant regulatory concern to the NRC staff. Therefore, further information is needed to determine whether the Commission can have reasonable assurance that the Licensee will satisfy the requirements of 10 CFR 30.35 and otherwise conduct its activities in accordance with the Commission's requirements.

III

Accordingly, pursuant to sections 161c, 61o, 182, and 186 of the Atomic Energy Act of 1954, as amended, and 10 CFR 30.32(b), in order for the Commission to determine whether the license should be modified, suspended, or revoked or other enforcement action taken to ensure compliance with NRC regulatory requirements, the Licensee is required to submit to the Administrator, Region I, 475 Allendale Road, King of Prussia, Pennsylvania 19406, within 30 days of the date of this Demand for Information, the information requested in the letter dated August 30, 1993 (copy attached), in writing and under oath or affirmation.

REGION I OFFICIAL RECORD COPY

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After reviewing your response, the NRC will determine whether further action is necessary to ensure compliance with regulatory requirements.

FOR THE NUCLEAR REGULATORY COMMISSION

Original Signed By: Mohamed M. Shanbaky

NUCLEAR MATERIALS SAFETY BRANCH REGION I KING OF PRUSSIA, PENNSYLVANIA 19406

Dated at King of Prussia, Pennsylvania this 9rd day of Marsh, 1994

AUG 3 0 1993

License No. 06-27843-02 Docket No. 030-29266 Control No. 114227

Bristol-Myers Squibb Company
ATTN: George S. Nagle, Director Environmental Health & Safety
Pharm. Research & Development Division
P. O. Box 5100
5 Research Parkway
Wallingford, Connecticut 06492

Dear Mr. Nagle:

Subject: Financial Assurance for Decommissioning

This is in reference to your submittal dated February 18, 1991 to provide financial assurance for License No. 06-27843-02. We have reviewed your submittal. Please modify your submission to address the specific issues listed below:

1. Submit either a Statement of Certification or a Decommissioning Cost Estimate.

10 CFR 30.35 requires that a licensee submit either a certification statement or a decommissioning cost estimate. Your submission does not include either a cost estimate or a certification statement. Based upon the \$750,000 specified in the parent company guarantee agreement, it appears that a certification statement should have been included. Please submit either a certification statement or a decommissioning cost estimate in accordance with 10 CFR 30.35(c)(1). You may use the recommended wording contained in Regulatory Guide 3.66 "Standard Format and Content of Financial Assurance Mechanisms Required for Decommissioning Under 10 CFR 30, 40, 70 and 72" (June 1990), pages 1-5 (copy enclosed).

2. Submit a different method of financial assurance or demonstrate that a Parent-Subsidiary relationship exists between the guarantor and the licensee.

A parent-subsidiary relationship must exist between the guarantor and the licensee in order for the parent guarantee to be a valid method of financial assurance under NRC regulations. As stated in 10 CFR 30.35(f)(2), a parent company guarantee, like the surety and insurance methods of financial assurance, must "guarantee that

decommissioning costs will be paid should the licensee default^{*}. The preamble to the decommissioning rule explains that the parent guarantee mechanism is only allowed when the parent company provides "an independent commitment beyond that of the licensee to expend funds" (52 Federal Register 24036, June 27, 1988).

-2-

There is no evidence in your submission documenting the existence of a parentsubsidiary relationship between the guarantor and the licensee, or even that they are separate legal and financial entities. Although the submission includes the guarantor's 1989 SEC Form 10-K and its 1989 annual report, these documents do not indicate that the licensee is a subsidiary of the guarantor.

Several aspects of your submission suggest that the licensee is a division of the guarantor rather than a subsidiary:

- a. The guarantor (Bristol-Myers Squibb Company) submitted the parent company guarantee agreement on the letterhead of the licensee (Bristol-Myers Squibb Pharmaceutical Research Institute);
- The guarantee omits recitals 5 and 7 from the wording recommended in Regulatory Guide 3.66. The omitted recitals specifically address the parentsubsidiary relationship; and
- c. The representative signing the parent guarantee for the guarantor (Bristol-Myers Squibb Company) works for the <u>licensee</u> (Bristol-Myers Squibb Pharmaceutical Research Institute). In fact, the submission contains evidence that the three individuals authorized to represent the guarantor in signing the guarantee all work for the licensee.

Please submit evidence that the licensee is a subsidiary of the guarantor. This evidence could include incorporation agreements (i.e., copies of submissions to the appropriate State Corporation Commission) or a corporate resolution certifying that the licensee and its parent guarantor are separate and distinct corporate entities and that the parent controls a majority of the voting stock of the subsidiary.

If a parent-subsidiary relationship cannot be demonstrated, then the parent guarantee cannot be used and an alternate mechanism must be submitted. If, however, you are able to demonstrate a parent-subsidiary relationship as discussed above, then modify your submission as described below.

 Use the recommended wording in Regulatory Guide 3.66 for the parent company guarantee agreement.

Your submission varies greatly from the recommended wording in Regulatory Guide 3.66, pages 4-41 through 4-44. Many of the differences significantly reduce the assurance provided by the guarantee. For example, the guarantee omits recommended recitals 5, 6, 7, 11, 13, 15 and 16 entirely, and substantially modifies several other recitals. These provisions are essential to ensuring the validity and adequacy of the financial assurance for decommissioning.

The submitted guarantee also substantially modifies virtually all other recitals. For example, the guarantee refers to the guarantor's "net worth" and "credit rating", thereby making it unclear whether the guarantor passes NRC's more stringent financial test requirements regarding tangible net worth and <u>bond</u> ratings. Please submit a parent company guarantee agreement using the recommended wording specified in Regulatory Guide 3.66, pages 4-41 through 4-44.

- 4. Your submission does not adequately demonstrate that the guarantor is able to pass the financial test and does not include all of the supporting documents specified in Regulatory Guide 3.66. Submit the following documents substantiating a valid parent guarantee and financial test:
 - a. Letter from the Chief Executive Officer of the licensee;
 - b. Letter from the guarantor's Chief Financial Officer, including demonstration of ability to pass the financial test (either Alternative I or II);
 - c. Auditor's special report and schedule attachment to the special report; and
 - d. Standby Trust Agreement and related documents.

Please use the recommended wording in Regulatory Guide 3.66 in Sections 4.7 and 4.3 and submit originally signed duplicates.

5. Submit a Request for an Exemption.

If you are unable to demonstrate a parent-subsidiary relationship and decide to resubmit documents in support of a self-guarantee you need to include a request for a schedular exemption from the regulations that specify acceptable financial assurance

-3-

mechanisms, until completion of the self-assurance mechanism rule-making which, while underway, is not expected to be complete for some time. To qualify for this option, you must submit:

- A specific request to use a self-guarantee and to be exempted from the requirements of 10 CFR 30.35(f).
- b. Documentation that the licensee passes the financial test which includes:
 - (1) Tangible net worth of at least 1 billion dollars;
 - (2) Tangible net worth at least 10 times the total decommissioning cost estimate for all decommissioning activities for which the company is responsible as self-guaranteeing licensee and as parent-guarantor, or 10 times the current amount specified in NRC Regulations if certification is used;
 - (3) Assets located in the United States amounting to at least 90 percent of total assets or at least 10 times the total current decommissioning cost estimate for all decommissioning activities for which the company is responsible as self-guaranteeing licensee and as parent-guarantor, or 10 times the current amount specified in NRC Regulations if certification is used;
 - (4) A current rating for its most recently issued bonds of AAA, AA, or A as issued by Standard and Poor's (S&P) or Aaa, Aa, or A as issued by Moody's; and
 - (5) At least one class of equity securities registered under the Securities Exchange Act of 1934.
- c. Copies of all reports filed with the Securities and Exchange Commission under Section 13 of the Securities Exchange Act of 1934.
- d. Documentation that the licensee's auditor has compared the data used by the licensee in the financial test with the corporation's independently audited year end financial statements.
- e. A commitment that the licensee will repeat and successfully pass the financial test within 90 days after the close of each succeeding fiscal year, and

-4-

f. Commitment to notify the NRC within 90 days of any matters coming to the attention of the auditor that cause the auditor to believe that the data specified in the financial test should be adjusted and that the corporation no longer passes the test.

-5-

There is no guarantee that an exemption will be granted.

Satisfactory financial assurance is required for your license. Therefore, we request that you respond within 30 calendar days from the date of this letter.

Please reply in <u>duplicate</u> to my attention at the Region I office and submit originally signed documents. You may refer to Mail Control No. 114227. If you have any questions regarding this letter, please contact Anthony Dimitriadis of my staff at (215) 337-6953.

Sincerely,

Original Signed By: John D. Kinneman John D. Kinneman, Chief Research, Development and Decommissioning Section Division of Radiation Safety and Safeguards

Enclosure: Regulatory Guide 3.66

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License No. 06-27843-02 Docket No. 030-29266 Control No. 114227

Bristol-Myers Squibb Company
ATTN: George S. Nagle, Director Environmental Health & Safety
Pharm. Research & Development Division
P. O. Box 5100
5 Research Parkway
Wallingford, Connecticut 06492

Dear Mr. Nagle:

Subject: Financial Assurance for Decommissioning

This is in reference to your submittal dated February 18, 1991 to provide financial assurance for License No. 06-27843-02. We have reviewed your submittal. Please modify your submission to address the specific issues listed below:

1. Submit either a Statement of Certification or a Decommissioning Cost Estimate.

10 CFR 30.35 requires that a licensee submit either a certification statement or a decommissioning cost estimate. Your submission does not include either a cost estimate or a certification statement. Based upon the \$750,000 specified in the parent company guarantee agreement, it appears that a certification statement should have been included. Please submit either a certification statement or a decommissioning cost estimate in accordance with 10 CFR 30.35(c)(1). You may use the recommended wording contained in Regulatory Guide 3.66 "Standard Format and Content of Financial Assurance Mechanisms Required for Decommissioning Under 10 CFR 30, 40, 70 and 72" (June 1990), pages 1-5 (copy enclosed).

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decommissioning costs will be paid should the licensee default". The preamble to the decommissioning rule explains that the parent guarantee mechanism is only allowed when the parent company provides "an independent commitment beyond that of the licensee to expend funds" (52 Federal Register 24036, June 27, 1988).

-2-

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Several aspects of your submission suggest that the licensee is a division of the guarantor rather than a subsidiary:

- a. The guarantor (Bristol-Myers Squibb Company) submitted the parent company guarantee agreement on the letterhead of the licensee (Bristol-Myers Squibb Pharmaceutical Research Institute);
- b. The guarantee omits recitals 5 and 7 from the wording recommended in Regulatory Guide 3.66. The omitted recitals specifically address the parentsubsidiary relationship; and
- c. The representative signing the parent guarantee for the guarantor (Bristol-Myers Squibb Company) works for the <u>licensee</u> (Bristol-Myers Squibb Pharmaceutical Research Institute). In fact, the submission contains evidence that the three individuals authorized to represent the guarantor in signing the guarantee all work for the licensee.

Please submit evidence that the licensee is a subsidiary of the guarantor. This evidence could include incorporation agreements (i.e., copies of submissions to the appropriate State Corporation Commission) or a corporate resolution certifying that the licensee and its parent guarantor are separate and distinct corporate entities and that the parent controls a majority of the voting stock of the subsidiary.

If a parent-subsidiary relationship cannot be demonstrated, then the parent guarantee cannot be used and an alternate mechanism must be submitted. If, however, you are able to demonstrate a parent-subsidiary relationship as discussed above, then modify your submission as described below.

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3. Use the recommended wording in Regulatory Guide 3.66 for the parent company guarantee agreement.

-3-

Your submission varies greatly from the recommended wording in Regulatory Guide 3.66, pages 4-41 through 4-44. Many of the differences significantly reduce the assurance provided by the guarantee. For example, the guarantee omits recommended recitals 5, 6, 7, 11, 13, 15, and 16 entirely, and substantially modifies several other recitals. These provisions are essential to ensuring the validity and adequacy of the financial assurance for decommissioning.

The submitted guarantee also substantially modifies virtually all other recitals. For example, the guarantee refers to the guarantor's "net worth" and "credit rating", thereby making it unclear whether the guarantor passes NRC's more stringent financial test requirements regarding tangible net worth and <u>bond</u> ratings. Please submit a parent company guarantee agreement using the recommended wording specified in Regulatory Guide 3.66, pages 4-41 through 4-44.

- 4. Your submission does not adequately demonstrate that the guarantor is able to pass the financial test and does not include all of the supporting documents specified in Regulatory Guide 3.66. Submit the following documents substantiating a valid parent guarantee and financial test:
 - a. Letter from the Chief Executive Officer of the licensee;
 - b. Letter from the guarantor's Chief Financial Officer, including demonstration of ability to pass the financial test (either Alternative I or II);
 - c. Auditor's special report and schedule attachment to the special report; and
 - d. Standby Trust Agreement and related documents.

Please use the recommended wording in Regulatory Guide 3.66 in Sections 4.7 and 4.3 and submit originally signed duplicates.

5. Submit a Request for an Exemption.

If you are unable to demonstrate a parent-subsidiary relationship and decide to resubmit documents in support of a self-guarantee you need to include a request for a schedular exemption from the regulations that specify acceptable financial assurance

mechanisms, until completion of the self-assurance mechanism rule-making which, while underway, is not expected to be complete for some time. To qualify for this option, you must submit:

-4-

- A specific request to use a self-guarantee and to be exempted from the requirements of 10 CFR 30.35(f).
- b. Documentation that the licensee passes the financial test which includes:
 - (1) Tangible net worth of at least 1 billion dollars;
 - (2) Tangible net worth at least 10 times the total decommissioning cost estimate for all decommissioning activities for which the company is responsible as self-guaranteeing licensee and as parent-guarantor, or 10 times the current amount specified in NRC Regulations if certification is used;
 - (3) Assets located in the United States amounting to at least 90 percent of total assets or at least 10 times the total current decommissioning cost estimate for all decommissioning activities for which the company is responsible as self-guaranteeing licensee and as parent-guarantor, or 10 times the current amount specified in NRC Regulations if certification is used;
 - (4) A current rating for its most recently issued bonds of AAA, AA, or A as issued by Standard and Poor's (S&P) or Aaa, Aa, or A as issued by Moody's; and
 - (5) At least one class of equity securities registered under the Securities Exchange Act of 1934.
- c. Copies of all reports filed with the Securities and Exchange Commission under Section 13 of the Securities Exchange Act of 1934.
- d. Documentation that the licensee's auditor has compared the data used by the licensee in the financial test with the corporation's independently audited year end financial statements.
- e. A commitment that the licensee will repeat and successfully pass the financial test within 90 days after the close of each succeeding fiscal year, and

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f. Commitment to notify the NRC within 90 days of any matters coming to the attention of the auditor that cause the auditor to believe that the data specified in the financial test should be adjusted and that the corporation no longer passes the test.

-5-

here is no guarantee that an exemption will be granted.

Satisfactory financial assurance is required for your license. Therefore, we request that you respond within 30 calendar days from the date of this letter.

Please reply in <u>duplicate</u> to my attention at the Region I office and submit originally signed documents. You may refer to Mail Control No. 114227. If you have any questions regarding this letter, please contact Anthony Dimitriadis of my staff at (215) 337-6953.

Sincerely,

Original Signed By: John D. Kinneman

John D. Kinneman, Chief Research, Development and Decommissioning Section Division of Radiation Safety and Safeguards

Enclosure: Regulatory Guide 3.66

bcc: J. Kinneman, RI A. Dimitriadis



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LIST OF INSTRUCTIONS

Bristol-Myers Squibb Pharmaceutical Research Institute

In reviewing the comments the reviewer will note that there will be some overlap between ICF and OGC comments. The following comments should be included in the basis for the deficiency letter:

1. ICF comments 1 through 4 plus last paragraph.

2. All OGC comments.

All other comments and discussions are for reviewer information.

114227 12/4/91 MEMO TO: Louis Bykoski, NMSS

FROM: Ronald Smith, OGC

..., Bristol-Myers Squibb Pharmaceutical Research Institute (Parent Guarantee) Concur with ICF's recommendation number 1. Concur with ICF's observation that the evidence submitted does not clearly establish that the licensee is a subsidiary, rather than simply a division or part of the "parent," Bristol-Myers. Concur with ICF's recommendations 3 and 4. It should also be noted that this is the second such guarantee by Bristol-Myers in this package, with a total liability of \$1.5 million. Are there others? If so, are we satisfied that Bristol-Myers can meet the total obligation(s), assuming they can act as a parent company guarantor? . 9300 Lee Highway Fairfax, Virginia 22031-1207

703/934-3000



ICF INCORPORATED

September 30, 1991

To:	Dr. Lou Bykoski, NMSS/NRC
From:	David Mitamura, John Collier, and Paul Bailey, ICF Incorporated
Subject:	Review of Parent Company Guarantee Submitted by Bristol-Myers Squibb Pharmaceutical Research Institute

Bristol-Myers Squibb Pharmaceutical Research Institute in Wallingford, Connecticut, submitted a parent company guarantee from Bristol-Myers Squibb Company, in the amount of \$750,000. The submission assures decommissioning costs for license number 06-27843-02 issued under 10 CFR Part 30.⁴ Upon review of the submission ICF recommends that NRC Region I require the licensee to modify the submission in the following ways:

- Submit either a statement of certification or a decommissioning cost estimate; and
- (2) Submit a different method of financial assurance or clarify that a parent-subsidiary relationship exists under which the parent guarantee mechanism is allowed.

If the licensee can demonstrate that it is eligible to use the parent guarantee, then it should also modify its submission in the following ways:

- (3) Resubmit the parent guarantee to more closely match the recommended wording of Regulatory Guide 3.66; and
- (4) Submit the required documents in support of the parent guarantee.

These recommendations are discussed below.

 Submit Either a Statement of Certification or a Decommissioning Cost Estimate

Under 10 CFR 30.35, a licensee is required to submit either a certification statement or a decommissioning cost estimate. The licensee's submission does not include either a cost estimate or a certification statement. Based upon the \$750,000 specified in the parent guarantee, it appears that a certification statement should have been included. The statement of certification, in addition to providing information that would allow NRC to verify the certification amount (e.g., the names and locations of

¹ ICF assumes that NRC has verified that the certification amount is acceptable under 10 CFR 30.35.

the facilities for which financial assurance is provided, and the amount and types of materials handled), officially certifies that the licensee is in compliance with the appropriate requirements. ICF recommends that NRC require the licensee to submit a certification statement certifying compliance with the decommissioning rules, as recommended in *Regulatory Guide 3.66* "Standard Format and Content of Financial Assurance Mechanisms Required for Decommissioning Under 10 CFR Parts 30, 40, 70, and 72" (June 1990), page 1-5.

(2) Submit a Different Method of Financial Assurance or Clarify that a Parent-Subsidiary Relationship Exists Under Which the Parent Guarantee Mechanism is Allowed

A parent-subsidiary relationship must exist between a guarantor and a licensee in order for the parent guarantee to be a valid method of financial assurance under NRC regulations. As stated in 10 CFR 30.35(f)(2), a parent company guarantee, like the surety and insurance methods of financial assurance, must "guarantee that decommissioning costs will be paid should the licensee default." This mechanism is allowed only when the parent company provides "an independent commitment beyond that of the licensee to expend funds" (53 Federal Register 24036, June 27, 1988).

There is no evidence in the submission documenting the existence of a parent-subsidiary relationship between the guarantor and the licensee, or even that they are separate legal and financial entities. Although the submission includes the guarantor's 1989 SEC Form 10-K and its 1989 annual report, these documents do not indicate that the licensee is a subsidiary of the guarantor. It could be that the licensee is merely a division of the guarantor rather than a subsidiary. Several aspects of the submission suggest that the licensee and guarantor may not be separate legal and financial entities:

- The guarantor (Bristol-Myers Squibb Company) submitted the parent guarantee on the letterhead of the licensee (Bristol-Myers Squibb Pharmaceutical Research Institute);
- The guarantee omits recitals 5 and 7 from the wording recommended in *Regulatory Guide* 3.66. The omitted recitals specifically address the parent-subsidiary relationship; and
- The representative signing the parent guarantee for the guarantor (Bristol-Myers Squibb Company) works for the <u>licensee</u>. In fact, the submission contains evidence that the three individuals authorized to represent the guarantor in signing the guarantee all work for the licensee.

The licensee should submit evidence that it is a subsidiary of the guarantor. This evidence might take the form of separate incorporation agreements (i.e., copies of submissions to the appropriate State Corporation Commission) or a certified corporate resolution certifying that the licensee and its parent guarantor are separate and distinct corporate entities and that the parent controls a majority of the voting stock c. the subsidiary. If a parent-subsidiary relationship cannot be demonstrated, then the parent guarantee cannot be used and an alternate mechanism must be submitted.

2

If, however, the licensee is able to demonstrate a parent-subsidiary relationship as discussed above, then ICF also recommends that NRC require the licensee to modify its submission as described in the following recommendations.

3

(3) Resubmit the Parent Guarantee to More Closely Match the Recommended Wording of Regulatory Guide 3.66

The licensee submitted a parent guarantee that varies greatly from the wording recommended in Regulatory Guide 3.66, pages 4-41 through 4-44. Many of the differences significantly reduce the assurance provided by the guarantee. For example, the guarantee omits recommended recitals 5, 6, 7, 11, 13, 15, and 16 entirely, and substantially modifies several other recitals. (Recital 5 indicates that the guarantor has majority control of the licensee's voting stock. Recital 6 references NRC requirements. Recital 7 indicates that, for value received from the licensee, the guarantee is established pursuant to authority received from the guarantor's directors. Recital 11 addresses the actions the guarantor will take if it no longer passes the financial test. Recital 13 addresses the guarantor's liability for litigation costs. Recital 15 notes the guarantor's obligation to provide alternative assurance for the licensee if the licensee is unable to obtain such assurance following cancellation of the guarantee by the guarantor. Recital 16 waives notice of NRC's acceptance of the guarantee by the guaranter ... These provisions are essential to ensuring the validity and adequacy of the financial assurance for decommissioning.

The submitted guarantee also substantially modifies virtually all other recitals. For example, the guarantee refers to the guarantor's "net worth" and "credit rating," thereby making it unclear whether the guarantor passes NRC's more stringent financial test requirements regarding <u>tangible net worth</u> and <u>bond</u> ratings. ICF recommends that NRC require the licensee to resubmit the parent guarantee using the recommended wording specified in *Regulatory Guide 3.66*, pages 4-41 through 4-44, to ensure a valid and enforceable financial assurance mechanism.

(4) Submit The Required Documents in Support of the Parent Guarantee

The licensee's submission does not adequately demonstrate that the guarantor is able to pass the financial test and does not include all of the supporting documents specified in *Regulatory Guide 3.66*. These documents are necessary to ensure that an acceptable guarantee exists. ICF recommends that NRC require the licensee to submit the following documents substantiating a valid parent guarantee and financial test:

- Letter from chief executive officer of the licensee;
- Letter from the guarantor's chief financial officer, including demonstration of ability to pass the financial test (either Alternative I or II);

- Auditor's special report and schedule attachment to the special report; and
- Standby trust agreement and related documents.

These documents should be worded as recommended in *Regulatory Guide 3.66* in Sections 4.7 and 4.3.

Finally, the Region should ensure that documents submitted by the licensee are originally signed duplicates, as recommended in *Regulatory Guide* 3.66. Unless the documents have been properly signed, NRC cannot be certain that the financial assurance mechanism is enforceable. Because ICF does not possess the original submissions, we cannot verify compliance with these requirements.

attachment

16-2-1843-62 APPENDIX A CHECKLIST FOR DECOMMISSIONING FINANCIAL ASSURANCE

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	Part 30 Licensee or Applicant Part 70 Licensee or Appli	cant
-	Part 40 Licensee or Applicant Part 72 Licensee or Appli	cant
Chec	k appropriate item in each category (if applicable)	- /-
1.	alai 191 Date of Financial Assurance Submission	3 - 7/3
2.	Public Entity	
	Private Entity	
3.	Certification of Financial Assurance \$ 750,000.	
	Decommissioning Funding Plan	
4.	(a) Prepayment Option (See Appendix B) Trust Fund Escrow Account Certificate of Deposit Government Fund Deposit of Government Securities	
	(b) Surety/Insurance/Other Guarantee (See Appendix C) Surety bond Letter of Credit Line of Credit Parent Company Guarantee/Financial Test*	
	<pre>(c) External Sinking Fund, Sinking Account and Surety/ Insurance (See Appendix D) Trust Fund Escrow Account Certificate of Deposit Government Fund Deposit of Government Securities Surety Bond Letter of Credit Line of Credit</pre>	
	(d) Statement of Intent (sublic antition only)	

APPENDIX C

CHECKLIST FOR SUBMISSION OF SURETY/INSURANCE/PARENT COMPANY GUARANTEE

A. Check Appropriate Form of Surety/Insurance/Guarantee

____ Surety Bond

Letter of Credit

Line of Credit

Parent Company Guarantee/Financial Test*

Insurance

B. Check Documents Submitted for Surety/Insurance/Guarantee

Surety Bond
 Surety Bond
 Standby Trust Agreement
 Acknowledgement

Letter of Credit
 Letter of Credit
 Standby Trust Agreement
 Acknowledgement

Line of Credit
 Verification
 Standby Trust Agreement
 Acknowledgement

4. Parent Company Guarantee Letter from Chief Executive Officer of Applicant or Licensee Cletter from Chief Financial Officer of Parent Company Financial Test: Alternative [I or II] Auditor's Special Report and Attached Schedule Corporate Guarantee Standby Trust Agreement Acknowledgement

5. Insurance

____ Certificate of Insurance ____ Standby Trust Agreement ____ Acknowledgement

May not be used in combination with any other instrument.

EXHIBIT 3-8

CHECKLIST OF CRITERIA FOR REVIEW OF PARENT COMPANY GUARANTEES

Copy of letter from the chief executive officer of the licensee, verifying that it is a going concern* with positive tangible net worth (submitted annually at same time as parent company financial test in Sections 4.7.3 and 4.7.4 of this guide).



Copy of corporate by-laws or other evidence indicating that parties signing the financial instrument (for the applicant) are authorized to represent the organization in the transaction.



Evidence that the financial instrument is an originally signed duplicate (e.g., an executed copy of the instrument).

Evidence that the corporate parent has majority control of the applicant's voting stock.



Name and address of guarantor.



Name and address of the licensee.



Name and address of the regulatory agency.



Recitation of the guarantor's authority to provide the guarantee, such as ownership of the licensee. P(3 - of mathematical formation for the second formation of the second



Identification of the facilities for which the guarantee provides financial assurance and amounts guaranteed for decomprisioning activities. $\mathcal{F} \supset \mathcal{F} \longrightarrow \mathcal{F}$

[&]quot;A "going concern" is a firm that is expected to continue operating at least long enough for current expectations and plans to be carried out and for the reasonably foreseeable future period after that.

EXHIBIT 3-8 (Continued)

Description of the primary obligation (decommissioning requirements).

Unequivocal statement of guarantee.

 \mathcal{C}_{a}^{c} . Recitation of the consideration for the guarantee. P. Liability of the guarantor.

> E Limitation of liability Condition(s) of liability

O Effect on liability of a change in the status of the licensee PT 7

Statement that guarantor remains bound despite amendment or modification of license or decommissioning funding plan, reduction or extension of time of performance of required activities, or any other modification or alteration of an obligation of licensee. Π &

Notice requirements. IT 9 mconcolim

Discharge of the guarantor.

Termination and revocation.

1. Termination on occurrence of contingency

2. Voluntary revocation by guarantor

Effective date of termination or revocation 3.

Date. p.2-mechanism



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Signatures. p. 2 - mechanism

AUG 02 1991

MEMORANDUM FOR	Louis M. Bykoski, NRC Project Officer Low Level Waste Management, Low Level Regulatory Branch
FROM:	John D. Kinneman, Chief Nuclear Materials Safety Section B Division of Radiation Safety and Safeguards
SUBJECT:	NONSTANDARD FINANCIAL ASSURANCE SUBMITTALS RELATED TO THE

DECOMMISSIONING RULE

John Austin's August 6, 1990 memorandum set forth a procedure for submitting nonstandard financial assurance submittals to you for review by the NRC

contractor. We have also included parent company guarantees and decommissioning funding plans.

Licensee	License No.	Control No.
Textron Defense Systems	SUB-1410	113599
Philips Elmet Division	STB-171	114173
E. R. Squibb & Sons, Inc.	29-00139-02	113770
Liposome Company, Inc.	29-19918-01	114548
Department of the Army	SUB-348	112499
Department of the Army	29-00047-02	112495
Department of the Army	29-00047-06	112496
Department of the Army	29-00047-08	112497
Bristol-Myers Squibb Co. American Cyanamid Company	29-00047-09 06-27843-02 29-07694-01	112498 114227 112844

If you or the contractors believe any of these cases should more properly be reviewed by the Region, please return them.

> Original Cignod By: Cohn D. Flager

John D. Kinneman, Chief Nuclear Materials Safety Section B Division of Radiation Safety and Safeguards

CC: J. Glenn, NMSS R. Bellamy, RI

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FINANCIAL ASSURANCE MEMO/5 - 0001.0.0 07/29/91

Louis M. Bykoski

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RI:DRSS Vittar/bj 307/24/91



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COPY FINANCIAL ASSURANCE MEMO/5 - 0002.0.0 07/23/91

030-29266

Bristol-Myers Squibb Pharmaceutical Research Institute

5 Research Parkway PO, Box 5100 Wallingford, CT 06492-7660

CERTIFIED MAIL #P-859-769-906 RETURM RECEIPT REQUESTED

February 18, 1991

U.S. Nuclear Regulatory Commission Region I 631 Park Avenue King of Prussia, PA 19406

Re: Parent Company Guarantee and Associated Check (NRC License No. 06-27843-02)

Dear Sir or Madam:

Enclosed is the parent company guarantee of funds for decommissioning costs and associated filing fee (check for \$500.00).

Sincerely,

George Nagle, Director Environmental, Health and Safe

GN/sjd Attachments

cc: J. Balser

EE NOT REQUIRED	Log Man 4 - 1 Remitter Check No. 42703 Amount 2500 Fee Category 3 M Ch Type of Fee amod Date Check Rec'd. 3/12/9/ Date Completed 3/14/11 By:	kret	turne
	EE NOT REQUIRED	CCMM	11 MAR 12

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RECEIVED-REGION !

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A Bristol-Myers Squibb Company

FEB 21 1991

Bristol-Myers Squibb Pharmaceutical Research Institute

5 Research Parkway PO. Box 5100 Wallingford, CT 06492-7660

11 February 91

U.S. Nuclear Regulatory Commission Region I 631 Park Avenue King of Prussia, PA 19406

Re: Parent Company Guarantee of Funds for Decommissioning Costs (NRC License No. 06-27843-02)

Dear Sirs:

- 1. This Guarantee is being issued to comply with regulations issued by the Nuclear Regulatory Commission ("NRC"), an agency of the U.S. Government, pursuant to the Atomic Energy Act of 1954, as amended, and the Energy Reorganization Act of 1974. NRC has promulgated regulations in Title 10, Chapter 1 of the <u>Code of Federal Regulations</u>, Part 30, which require that a holder of a materials license issued pursuant to 10 CFR Part 30, provide assurance that funds will be available when needed for required decommissioning activities.
- 2. This Guarantee is being issued to provide financial assurance for decommissioning activities at the Bristol-Myers Squibb Company Pharmaceutical Research facility located at 5 Research Parkway in Wallingford, Connecticut 06492 (NRC License No. 06-27843-02). The required amount of financial assurance for decommissioning the aforesaid facility. pursuant to 10 CFR § 30.35(d) is Seven Hundred and Fifty Thousand Dollars (\$750,000.00).
- 3. Bristol-Myers Squibb Company has full authority to enter into this Guarantee under the laws of the State of Delaware, its state of incorporation, its restated Certificate of Incorporation, its bylaws and the policies and practices adopted by its Board of Directors.
- 4. Bristol-Myers Squibb Company hereby guarantees to the NRC that funds, in an amount not less than Seven Hundred and Fifty Thousand Dollars (\$750,000.00), will be available for any decommissioning activities that may be required pursuant to 10 CFR Part 30 in connection with NRC License No. 06-27843-02 and that all of such decommissioning activities shall be carried out in accordance with NRC regulations.
- 5. As demonstrated by the independently audited year end financial statements which appear in the enclosed copies of its Annual Report and its U.S. Securities and Exchange Commission Form 10K, Bristol-Myers Squibb Company meets the criteria for and therefore passes the "Financial Test" set forth in 10 CFR Part 30, Appendix A, Paragraph A.2. More specifically, as shown in these enclosures:
 - (a) Bristol-Myers Squibb Company maintains a current credit rating of AAA, as issued by Standard and Poors and Moody's;
 - (b) Bristol-Myers Squibb Company has a net worth of at least Ten Million Dollars which is at least six times the current decommissioning cost estimate of \$750,000.00;

U.S. Nuclear Regulatory Commission Page 2 11 February 91

- (c) Bristol-Myers Squibb Company owns assets located in the United States amounting to at least six times the current decommissioning cost estimate of \$750,000.00.
- 6. Bristol-Myers Squibb Company agrees to repeat the Financial Test referred to in Recital 5., above, within ninety days after the close of each succeeding fiscal year and, in the event the Company no longer meets the criteria of 10 CFR Part 30, Appendix A, Paragraph A.2., Bristol-Myers Squibb Company will provide to the NRC alternate financial assurance within 120 days after the end of such fiscal year.
- Bristol-Myers Squibb Company agrees to notify the NRC promptly if the ownership of NRC License No. 06-27843-02 is transferred and to maintain this Guarantee until the new parent firm or licensee provides alternative financial assurance acceptable to the NRC.
- 8. Bristol-Myers Squibb Company, as well as its successors and assigns, agree to remain bound jointly and severally under this Guarantee notwithstanding any or all of the following: amendment or modification of the license or NRC-approved decommissioning funding plan for this facility, the extension or reduction of the time of performance of required activities, or any other modification or alteration of an obligation of the licensee pursuant to 10 CFR Part 30.
- 9. Bristol-Myers Squibb Company agrees to remain bound under this Guarantee for as long as its Pharmaceutical Research facility in Wallingford, Connecticut must comply with the applicable financial assurance requirements of 10 CFR Part 30, except that Bristol-Myers Squibb Company may cancel this Guarantee by sending notice by certified mail to the NRC provided, however, that such cancellation may become effective no earlier than 120 days after receipt of such notice by the NRC.
- Bristol-Myers Squibb Company agrees to submit to the NRC copies of its Annual Report and its U.S. Securities and Exchange Commission Form 10K during each year in which this Guarantee is in effect.

I hereby certify that this Guarantee is true and correct to the best of my knowledge.

Effective Date: July 27, 1990

BRISTOL-MYERS SQUIBB COMPANY

By:

John J. Balset Vice President - Counsel Pharmaceutical Research Institute

The foregoing was subscribed and sworn to before me by John J. Balser, this // day of February, 1991.

Diane M. Griser Notary Public

DIANE M. GRISER Notary Public State of Connecticut My Commission Expires March 31, 1993

JJB/drng Enclosures (4)

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CERTIFICATION

I, Raquel I. Maldonado, Assistant Secretary of Bristol-Myers Squibb Company, a corporation organized under the laws of the State of Delaware, hereby certify the the following is a true and exact copy of a resolution taken from the minutes of a regular meeting of the Board of Directors of said corporation, held at the offices of the Company, 345 Park Avenue, New York, New York, on the 10th day of September, 1990.

> RESOLVED, that effective September 10, 1990, and until further action by this Board of Directors, any TWO of the following:

> > Michael E. Autera Harrison M. Bains, Jr. J. Richard Edmondson Robert J. Fechtmann Richard L. Gelb Ellen S. Hirsch Pamela D. Kasa William R. Miller Jonathan B. Morris

be, and they hereby are, authorized, for and on behalf of this corporation:

To authorize such employees of this corporation as they may select to execute contracts on behalf of this corporation to the United States government, state governments and municipal governments, and to execute contracts, performance and bid bonds relating to said contracts.

In witness whereof, I have hereunto placed my hand and the seal of the

corporation on this 27th day of November, 1990.

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Assistant Secretary

BRISTOL-MYERS SQUIBB COMPANY

AUTHORIZATION

WE, the undersigned, by the power granted to us pursuant to a Resolution adopted by the Board of Directors of Bristol-Myers Squibb Company (1/19 "Company") on September 10, 1990 do hereby authorize the following individuals, to each, individually, for and on behalf of the Company, enter into a Parent Company Guarantee of Funds for Decommissioning Costs pursuant to Nuclear Regulatory Commission License No. 06-27843-02 in order to comply with the regulations of Title 10, Chapter 1 of the Code of Federal Regulations, Part 30:

John J. Balser

Vice President - Counsel Pharmaceutical Research Institute

ignature

George Nagle

Director Environmental Health and Safety Pharmaceutical Research Institute

Signature

Signature

Edgar Haber, M.D.

Signed and sealed this 7th day of Automatic 1991

President Pharmaceutical Research Institute

Pamela D. Kasa Jonathan B. Morris

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SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 [FEE REQUIRED] For the fiscal year ended December 31, 1989

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCILANCE ACT OF 1934 [NO FEE REQUIRED]

For the transition period from 10

Commission File Number 1-1136

Bristol-Myers Squibb Company

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization)

22-079-0350 (IRS Employer Identification No.)

345 Park Avenue, New York, New York 10154 (Address of principal executive offices) Telephone: (212) 546-4000

Securities registered pursuant to Section 12(b) of the Act:

Title of each class

Common Stock, \$.10 Par Value

\$2 Convertible Preferred Stock, \$1 Par Value

Preferred Stock Purchase Rights *

Name of each exchange on which registered

New York Stock Exchange Pacific Stock Exchange

New York Stock Exchange Pacific Stock Exchange

New York Stock Exchange Pacific Stock Exchange

*At the time of filing, the Rights were not traded separately from the Common Stock. For additional information, see "Stockholders' Equity" in the Notes to Consolidated Financial Statements on pages 94 through 96 of the 1989 Annual Report to Stockholders, which is incorporated by reference in this Form 10-K Annual Report.

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes X No

The aggregate market value of voting stock held by non-affiliates of the registrant as of February 28, 1990 was \$27,231,349,028. At February 28, 1990 there were 526,494,984 shares of common stock outstanding.

Documents incorporated by reference

Annual Report to Stockholders for Fiscal Year Ended December 31, 1989. With the exception of those portions which are incorporated by reference in this Form 10-K Annual Report, the 1989 Annual Report to Stockholders is not to be deemed filed as part of this report.

Cover Page, Parts I. II. IV

Proxy Statement for Annual Meeting of Stockholders on May 1, 1990

REAL PROPERTY

Part III

Item 1. BUSINESS.

DESCRIPTION OF BRISTOL-MYERS SOUIBB COMPANY ("Bristol-Myers Squibb" or the "Company")

General:

On October 4, 1989, Squibb Corporation merged with a subsidiary of Bristol-Myers Company, and Bristol-Myers Company changed its name to Bristol-Myers Squibb Company. Squibb common stock became entitled to be exchanged at a ratio of one share of Squibb for 2.4 Bristol-Myers Squibb shares. The merger has been accounted for as a pooling-of-interests and, accordingly, all financial data for periods prior to the merger have been restated.

Bristol-Myers Squibb was incorporated under the laws of the State of Delaware in August, 1933 as successor to a New York business started in 1887. Bristol-Myers Squibb, through its divisions and subsidiaries, is a major producer and distributor of pharmaceutical products, medical devices, nonprescription health products, toiletries, beauty aids and household products.

INDUSTRY SEGMENTS

Reference is made to Segment Information in the Notes to Consolidated Financial Statements on pages 98 and 99 of the 1989 Annual Report to Stockholders which is incorporated herein by reference in this Form 10-K Annual Report and made a part hereof in response to the information required by Item 1.

DESCRIPTION OF SEGMENTS

Pharmaceutical Products - This segment includes sales of prescription medicines, mainly cardiovascular drugs and antibiotics, which comprise about forty percent and twenty-five percent, respectively, of the segment's sales, anti-cancer drugs which amounted to more than \$592 million in sales. central nervous system drugs, diagnostic agents, and other pharmaceutical products. Some of the principal products in this segment are captopril, an ACE inhibitor sold primarily under the trademarks CAPOTEN* and CAPOZIDE; CORGARD, OUESTRAN and SOTACOR, cardiovascular products; ISOVUE, a non-ionic contrast agent for x-ray diagnosis; cefadroxil, an oral cephalosporin, sold under the trademarks ULTRACEF and DURICEF; amikacin, an aminoglycoside sold under the trademark AMIKIN; aztreonam, a monobactam antibiotic sold under the trademark AZACTAM; BUSPAR, an anxiolytic; VEPESID, PLATINOL, PARAPLATIN, BLENOXANE, MUTAMYCIN, MEGACE, CYTOXAN and IFEX, anti-cancer agents; synthetic penicillins, sold under the trademarks POLYCILLIN and POLYMOX; cefatrizine, an oral cephalosporin, sold primarily under the trademarks KENTACEF and ZANITRIN; injectable cephalosporins, sold under the trademarks MEICELIN and CEFADYL; DESYREL, an antidepressant; NALDECON, a cough/cold preparation; STADOL, a potent prescription analgesic; and K-LYTE, a potassium supplement.

 The underlined are brand names of products which are registered trademarks owned by the Company.

Bristol-Myers Squibb has in development a number of pharmaceutical products. The significant drugs in the pharmaceutical research pipeline include PRAVACHOL (pravastatin), MONOPRIL (fosinopril) and VIDEX (ddI). Pravastatin's primary indication is as a cholesterol-lowering agent. A New Drug Application (NDA) was submitted in the U.S. in 1988 and foreign registrations were filed in 1988 and in 1989. Regulatory approvals have already been received in Ireland and Iceland. Additional indications for pravastatin are for regression or retardation of progression of atherosclerotic plaques. It is in Phase III clinical trials in the U.S. and in Europe. Pravastatin also has received additional indications for primary and secondary prevention of cardiovascular morbidity and mortality. MONOPRIL is a second generation ACE inhibitor for hypertension. A NDA was filed in the U.S. in 1988 and foreign registrations were filed in 1989. VIDEX, an anti-AIDS antiviral agent, is in Phase II clinical trials in the U.S., Canada and Europe. Bristol-Myers Squibb received FDA approval of a Trearment IND (Investigational New Drug) protocol under which VIDEX can be used to treat patients with AIDS and severe AIDS-Related Complex who are intolerant to AZT. Approval was also granted for its voluntary compassionate distribution program in the U.S. and Canada, under which patients for whom need is critical, but who are not eligible for either Phase II trials or the Treatment IND protocol, can receive VIDEX. Under all three protocol's VIDEX is made available free of charge.

<u>Medical Devices</u> - This segment includes sales of orthopaedic implants, which comprise about forty percent of the segment's sales, ostomy care and wound management products, surgical instruments and other medical devices. Some of the principal products in this segment are the <u>HARRIS</u> precoat hip prosthesis and the <u>HARRIS/GALANTE</u> porous hip prosthesis; the <u>MILLER/</u> <u>GALANTE</u> knee prostheses; <u>STOMAHESIVE</u>, <u>SUR-FIT</u>, <u>COMBINESIVE</u>, <u>ACTIVE</u> <u>LIFE</u>, <u>COLODRESS</u> and <u>ILEODRESS</u>, ostomy care products; and <u>DUODERM</u> wound care products.

Nonprescription Health Products - This segment includes sales of infant formulas and other nutritional products, which totalled nearly \$1.1 billion and comprise about sixty-five percent of the segment's sales, analgesics, vitamins, cough/cold remedies and skin care products. Some of the principal products in this segment are ENFAMIL, PROSOBEE and NUTRAMIGEN, infant formula products; SUSTAGEN, NUTRAMENT, SUSTACAL and ISOCAL, adult nutritional supplements and specialties; BUFFERIN, NUPRIN, EXCEDRIN and TEMPRA, analgesics; COMTREX, multi-symptom cold reliever; KERI, moisturizing body lotion; PRESUN, sun blocking agent; ALPHA KERI, shower and bath oil; and THERAGRAN, THERAGRAN-M, THERAGRAN Stress Formula, VI-FLOR, VI-SOL and NATALINS, vitamins.

Toiletries. Beauty Aids and Household Products - This segment includes sales of haircoloring and hair care preparations, which comprise about forty-five percent of the segment's sales, deodorants and anti-perspirants, beauty appliances, household cleansing, specialty and laundry products. Among the principal products in this segment are <u>NICE 'N EASY</u>. LOVING CARE, <u>ULTRESS</u>, and <u>MISS CLAIROL</u>, haircolorings; the <u>CONDITION*</u> line and other shampoos and after shampoo treatment products; <u>INFUSIUM 23</u>, professional hair care products, <u>SEA BREEZE</u>, skin care products; <u>FINAL NET</u>, hair fixatives; <u>VITALIS</u>, hair preparations; <u>BAN</u>, anti-perspirants; <u>WINDEX</u>, glass cleaners; <u>VANISH</u>, bowl cleaners; <u>DRANO</u>, drain openers; <u>O-CEDAR</u>, handle goods; <u>RENUZIT</u>, air fresheners and home deodorants; <u>BEHOLD</u> and <u>ENDUST</u>. furniture polishes; JAVEX, bleaches; FLEECY, fabric softeners; hairdryers, hairsetters, makeup mirrors and other beauty appliances.

SOURCES AND AVAILABILITY OF RAW MATERIALS

Bristol-Myers Squibb, for the most part, purchases the principal raw materials and supplies used in each industry segment in the open market. Substantially all such materials are obtainable from a number of sources so that the loss of any one source of supply would not have a material adverse effect on the Company.

PATENTS, TRADEMARKS AND LICENSES

The Company owns or is licensed under a number of United States and foreign patents covering products, principally in the pharmaceutical and medical device segments and has also developed many brand names and trademarks for products in each industry segment. The Company considers the overall protection from its patent, trademark and license rights to be of material value and acts to protect these rights from infringement.

COMPETITION, DISTRIBUTION AND CUSTOMERS

The markets in which Bristol-Myers Squibb competes are generally broad based, heavily competitive and include many competitors. The principal means of competition utilized to market the products of Bristol-Myers Squibb include quality, service, price and product performance. The products of the pharmaceutical products segment and the medical devices segment are promoted on a national and international basis in medical journals and directly to the medical profession. Most of the other products of Bristol-Myers Squibb are generally advertised and promoted on a national and international basis through the use of television, radio, and print media, consumer offers, window and in-store displays. Bristol-Myers Squibb's products are principally sold to the wholesale and retail trade both nationally and internationally. Certain products of the pharmaceutical products and medical devices segments are also sold to other drug manufacturers, hospitals and the medical profession. None of the segments are dependent upon a single customer, or a few customers, such that the loss of any one or more would have a material adverse effect on the segment.

RESEARCH AND DEVELOPMENT

Research and development is essential to Bristol-Myers Squibb's businesses, particularly to the pharmaceutical products and the medical devices segment. Management continues to place great emphasis on these activities. The Bristol-Myers Pharmaceutical Research and Development Center in Wallingford, Connecticut and the Squibb Institute for Medical Research, with facilities in Princeton and New Brunswick, New Jersey, are the centers of Bristol-Myers Squibb's pharmaceutical research and development. Pharmaceutical research and development is also carried on at various facilities in the United States and in France, Italy, Japan, the United Kingdom and West Germany. Research and development activities of the medical devices segment are conducted at various facilities in the United States and Europe.

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Bristol-Myers Squibb spent approximately \$789 million in 1989, \$688 million . in 1988 and \$563 million in 1987 on company sponsored research and development activities. Pharmaceutical research and development spending increased 18% in 1989, 24% in 1988 and 19% in 1987, and as a percentage of pharmaceutical sales was 14.8% in 1989, 13.6% in 1988 and 13.1% in 1987.

REGULATION

Many of the products manufactured and sold by Bristol-Myers Squibb are subject to various forms of regulation by governmental agencies, primarily the Food and Drug Administration (FDA). The FDA has been conducting a comprehensive review of all over-the-counter medicines. This review focuses by category on the safety and efficacy of ingredients, combinations of ingredients, the labeling and the validity of claims made about ingredients in over-the-counter medicines. To be lawfully marketed, an over-the-counter product must comply with the FDA's Final Monograph for the product category. Tentative Final Monographs relating to certain Bristol-Myers Squibb products, including, among others, BUFFERIN, EXCEDRIN, EXCEDRIN P.M. and COMTREX have been issued for public comment. Bristol-Myers Squibb and other manufacturers and their trade associations have filed voluminous comments which are to be reviewed prior to final issuance of these Monographs. If the Final Monographs are ultimately issued in their current form, the marketing and sales of certain Bristol-Myers Squibb products would be adversely affected. Since all of the terms of the Final Monographs cannot be predicted, it is impossible to draw conclusions as to the ultimate effect, if any, of the FDA review on the marketing and sale of over-the-counter medicines by Bristol-Myers Squibb and others.

EMPLOYEES

Bristol-Myers Squibb employs approximately 54,100 people.

DOMESTIC AND FOREIGN OPERATIONS

Reference is made to Segment Information in the Notes to Consolidated Financial Statements on pages 98 and 99 of the 1989 Annual Report to Stockholders which is incorporated herein by reference in this Form 10-K Annual Report and made a part hereof in response to the information required by Item 1.

International operations are subject to certain risks which are inherent in conducting business abroad, including possible nationalization or expropriation, price and exchange controls, limitations on foreign participation in local enterprises and other restrictive governmental actions. In addition, changes in the relative value of currencies take place from time to time and their effects may be favorable or unfavorable on Bristol-Myers Squibb's operations. There are currency restrictions relating to repatriation of earnings in certain countries.

Item 2. PROPERTIES.

Bristol-Myers Squibb's world headquarters is located at 345 Park Avenue, New York, New York, where it leases approximately 832,600 square feet of floor space, 201,700 square feet of which is sublet to others.
Bristol-Myers Squibb manufactures products at sixty one major locations with an aggregate floor space of approximately 13,552,900 square feet. Forty-seven are owned by Bristol-Myers Squibb and fourteen facilities with an aggregate floor space of 940,263 square feet are leased. The non-U.S. operations include a total of twenty-two major owned manufacturing facilities in Australia. Brazil, Canada, Denmark, England, France, Italy, Japan, the Netherlands, the Philippines and Venezuela which aggregate approximately 5,401,300 square feet of space.

The number of major manufacturing facilities presently operated by Bristol-Myers Squibb is listed by industry segment:

	U.S. and Puerto Rico	Other Countries	Total
Pharmaceutical Products	10	16	26
Medical Devices	17	2	10
Nonprescription Health Products Toiletries, Beauty Aids and	6	4	10
Household Products	9	-5	14
Less: Facilities shared by various		*	04
segments	<u>4</u> 38	$\frac{4}{23}$	8
	Additional Addition	CONTRACTOR OF A DESCRIPTION OF A DESCRIP	

Portions of these facilities and other facilities owned or leased by Bristol-Myers Squibb in the United States and elsewhere are used for research, administration, storage and distribution. All of Bristol-Myers Squibb's facilities are well-maintained, adequately insured and in satisfactory condition. Reference is made to Provision for Integrating Businesses in the Notes to Consolidated Financial Statements on page 92 of the 1989 Annual Report to Stockholders which is incorporated herein by reference in this Form 10-K Annual Report and made a part hereof in response to the information required by Item 2.

Capital expenditures for the construction, expansion and modernization of production, research and administrative facilities aggregrated \$562 million, \$471 million and \$357 million in 1989, 1988 and 1987, respectively.

Item 3. LEGAL PROCEEDINGS.

Bristol-Myers Squibb owns U.S. Patent Number 4,504,657 for crystalline cefadroxil monohydrate sold under the brand name <u>DURICEF</u>. Kalipharma Inc. and Biocraft Laboratories, Inc., in separate actions filed on July 5, 1988 in the U.S. District Court for the Southern District of New York and on January 11, 1989 in the U.S. District Court for the District of New Jersey, respectively, sued Bristol-Myers Squibb for declaratory judgments of invalidity and non-infringement of the patent. Bristol-Myers Squibb filed countersuits in both actions alleging patent infringement. Bristol-Myers Squibb's request for a temporary injunction against Kalipharma was denied and its request for a temporary injunction against Biocraft was granted and subsequently stayed. Bristol-Myers Squibb sued Zenith Laboratories, Inc. and Interchem Corp. in the U.S. District Court for the District of New

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Jersey on July 7, 1989, and on July 10, 1989 filed an amended complaint against such parties and Dobfar Industria Chemica Farmaceutica, S.p.A., for a declaratory judgment affirming the validity of the patent and a permanent injunction restraining infringement of the patent. On December 13, 1989, the New York District Court granted Bristol-Myers Squibb's motion to transfer the pending Kalipharma action to the U.S. District Court for the District of New Jersey. The Biocraft, Zenith and Kalipharma actions were consolidated in the New Jersey District Court and on January 19, 1990; Bristol-Myers Squibb moved for a preliminary injuction in that court. A hearing on that motion was held commencing March 27, 1990. On March 27, 1990, Bristol-Myers Squibb entered into a settlement agreement with Zenith pursuant to which Zenith, among other things, conceded the validity of the patent, consented to a permanent injunction, agreed to the payment of damages and agreed immediately to suspend sales of infringing cefadroxil monohydrate. On March 29, Bristol-Myers Squibb also entered into a settlement agreement with Biocraft on similar terms and conditions. Biocraft also agreed not to appeal the decision issued March 15, 1990 by the ITC described below.

In a related action Bristol-Myers Squibb on February 1, 1989 filed a complaint in the U.S. International Trade Commission (ITC) alleging that the importation of cefadroxil monohydrate manufactured by Gema, S.A., Istituto Biochimico Italiano, S.p.A. (IBI) and Institut Biochimique, S.A. (IBSA), and the sale thereof by Biocraft and Kalipharma, infringed the patent and requesting that such importation and sale be prohibited. The Administrative Law Judge (ALJ) denied Bristol-Myers Squibb's motion for temporary relief and the ITC affirmed. On December 8, 1989, the U.S. Court of Appeals for the Federal Circuit reversed the ITC's decision. In light of such reversal, the ITC on January 10, 1990, issued temporary exclusion orders prohibiting the importation into the U.S. and sale of infringing cefadroxil monohydrate by respondents, except under bond, until issuance of a final decision. On December 15, 1989, the ALJ denied Bristol-Myers Squibb's application for permanent relief. On March 15, 1990, the ITC reversed the ALJ's decision, held the patent valid, granted an order excluding from the U.S. the infringing cefadroxil monohydrate of Gema, IBI and IBSA, and issued cease and desist orders against Biocraft and Kalipharma prohibiting the sale of imported cefadroxil monohydrate. Upon posting a bond, respondents may continue to import and sell cefadroxil monohydrate during a 60-day period in which the President may approve or disapprove the ITC orders. The ITC decision may be appealed to the Court of Appeals for the Federal Circuit by all respondents except Biocraft.

Item 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS.

A special meeting of stockholders was held on October 3, 1989 for the purpose of:

- Voting on the issuance of up to 242,100,000 shares of common stock in connection with a business combination with Squibb Corporation.
- Voting on an amendment to the Restated Certificate of Incorporation to increase the number of authorized shares of common stock from 750,000,000 shares to 1,500,000,000 shares.

At the meeting 228,146,769 shares of the Registrant's Common and S2 Convertible Preferred Stock were represented.

The proposal relating to the issuance of shares in connection with the business combination was approved by a vote of 204,623,072 shares in favor of the proposal, 1,958,809 shares against the proposal and 21,564,888 shares abstaining.

The proposal relating to the increase in authorized shares was approved by a vote of 220,808,093 shares in favor of the proposal, 6,064,758 shares against the proposal and 1,273,918 shares abstaining.

PARTIA

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EXECUTIVE OFFICERS OF THE REGISTRANT

Name	Age	Positions and Offices Presently Held With The Registrant
Richard L. Gelb	65	Chairman of the Board and Chief Executi Officer, Director, Chairman of the Executive Committee
Richard M. Furlaud	66	President, Director, member of the Executive Committee
William R. Miller	61	Vice Chairman of the Board, Director, member of the Executive Committee
Michael E. Autera	51	Executive Vice President, Administration and Chief Financial Officer
Wayne A. Davidson	58	Executive Vice President, Director and President, Bristol-Myers Squibb Pharmaceutical & Nutritional Group
Charles A. Heimbold, Jr.	56	Executive Vice President and Director
Edgar Haber, M.D.	58	President, Bristol-Myers Squibb Pharmaceutical Research Institute and Director
J. Richard Edmondson	63	Senior Vice President, Corporate Affairs
William F. Flatley	48	Senior Vice President, Human Resources
Marvin H. Koslow	60	Senior Vice President, Marketing Services
Joseph E. Maroun	60	Senior Vice President
Julius L. Pericola	61	Senior Vice President
Anthony W. Ruggiero	48	Senior Vice President and Controller

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Name	Age	Positions and Offices Presently Held With The Registrant
Ronald A. Ahrens	50	President, Consumer Products Group - North America
William T. Comer, Ph.D.	54	Senior Vice President, Strategic Management, Bristol-Myers Squibb Pharmaceutical Group
Raymond C. Egan	47	President, Bristol-Myers U.S. Pharmaceutical, Mead Johnson Worldwide Nutritional and Bristol-Myers Squibb Diagnostic Group
Rodolphe Hamel	60	Vice President and General Counsel
Thomas H. Hughes	61	President, Bristol-Myers Health Care Group
Abramo Virgilio, Ph.D.	64	President, Technical Operations, Bristol-Myers Squibb Pharmaceutical Group
Kenneth E. Weg	51	President, Squibb U.S. and Bristol-Myers Squibb International Pharmaceutical Group
Harrison M. Bains, Jr.	46	Vice President and Treasurer
Pamela D. Kasa	46	Vice President and Secretary

A general election of officers of the Registrant is held yearly by the Registrant's Board of Directors. Officers of the Registrant serve in such capacity at the pleasure of the Board of Directors of the Registrant. The most recent general election of officers of the Registrant was held on December 5, 1989. All the officers listed herein were either reelected or elected to the respective offices listed above at the general election held on December 5, 1989.

In addition to the positions and offices heretofore listed, all of the officers listed herein, with the exception of Mr. Flatley, are directors and/or officers of one or more affiliates of the Registrant.

RICHARD L. GELB - Mr. Gelb has been Chairman of the Board of Directors of the Registrant since July 1976 and has been Chief Executive Officer of the Registrant since January 1972. Mr. Gelb is Chairman of the Executive Committee of the Registrant and has been a director of the Registrant since 1960.

RICHARD M. FURLAUD - Chairman and Chief Executive Officer of Squibb Corporation from August 1974 to October 1989. Mr. Furlaud has been President and a director of the Registrant and member of the Executive Committee since October 1989.

WILLIAM R. MILLER - From January 1977 to May 1985, Executive Vice President of the Registrant. Mr. Miller has been Vice Chairman of the Board of Directors of the Registrant since May 1985 and a director of the Registrant and member of the Executive Committee since 1984. MICHAEL E. AUTERA - From January 1975 to October 1981, Vice President, the Registrant. From 1981 to August 1989, Senior Vice President, the Registrant. Mr. Autera has been Chief Financial Officer of the Registrant since 1986 and an Execut & Vice President of the Registrant since August 1989.

WAYNE A. DAVIDSON - From January 1984 to May 1988, President, U.S. Pharmaceutical and Nutritional Group, the Registrant. From October 1989 to present, President, Bristol-Myers Squibb Pharmaceutical & Nutritional Group of the Registrant. From January 1978 to October 1981, Vice President, the Registrant. From October 1981 to August 1989, Senior Vice President, the Registrant. Mr. Davidson has been an Executive Vice President of the Registrant since August 1989 and a director of the Registrant since October 1989.

CHARLES A. HEIMBOLD, JR. - From September 1984 to August 1988, President, Health Care Group, the Registrant. From January 1973 to October 1981, Vice President, the Registrant. From October 1981 to October 1989, Senior Vice President, the Registrant. Mr. Heimbold has been an Executive Vice President of the Registrant since August 1989 and a director of the Registrant since October 1989.

EDGAR HABER, M.D. - From '982 to 1985, Director, M.D. - Ph.D. Program, Harvard Medical School. From 1982 to present, Higgins Professor of Medicine, Harvard Medical School. From 1988 to March 1990, President, The Squibb Institute for Medical Research, the Registrant. Dr. Haber has been President of the Bristol-Myers Squibb Pharmaceutical Research Institute of the Registrant since March 1990 and a director of the Registrant since October 1989.

J. RICHARD EDMONDSON - From October 1969 to December 1974, from January 1977 to December 1978 and from December 1981 to June 1982, Secretary, the Registrant. From January 1974 to October 1981, Vice President, the Registrant. From January 1977 to June 1989, General Counsel, the Registrant. Mr. Edmondson has been a Senior Vice President of the Registrant since October 1981.

WILLIAM F. FLATLEY - From September 1984 to April 1988, President of The Drackett Company, a subsidiary of the Registrant. From September 1985 to April 1988, Vice President, the Registrant. Mr. Flatley has been a Senior Vice President of the Registrant since April 1988.

MARVIN H. KOSLOW - Mr. Koslow has been a Senior Vice President of the Registrant since October 1981.

JOSEPH E. MAROUN - From April 1983 to October 1989, President, Bristol-Myers International Group of the Registrant. Mr. Maroun has been a Senior Vice President of the Registrant since June 1984.

JULIUS L. PERICOLA - From March 1975 to January 1986, President, Bristol Laboratories, a division of the Registrant. From January 1986 to October 1989, Executive Vice President of the Bristol-Myers International Group. Mr. Pericola has been a Senior Vice President of the Registrant since October 1981.

ANTHONY W. RUGGIERO - From 1983 to January 1990, Senior Vice President and Chief Financial Officer, Squibb Corporation. Mr. Ruggiero has been Senior Vice President and Controller of the Registrant since January 1990.

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RONALD A. ATTRENS - From July 1980 to June 1985, President and General Manager of the Health Care Products Division of Richardson-Vicks, Inc. From June 1985 to June 1988, President of Bristol-Myers Products, a division of the Registrant. From June 1988 to October 1989, President, Consumer Products Group, the Registrant. From July 1986 to June 1988, Vice President, the Registrant. From June 1988 to December 1989, Senior Vice President, the Registrant. Mr. Ahrens has been the President, Consumer Products Group - North America of the Registrant since October 1989.

WILLIAM T. COMER, Ph.D. - From 1985 to June 1989, Senior Vice President, Licensing, Science and Technology Group, the Registrant. From June 1989 to October 1989, Executive Vice President, Science and Technology Group, the Registrant. From October 1989 to March 1990, President, Bristol-Myers Pharmaceutical Research and Bristol-Myers Squibb Licensing Group, the Registrant. From July 1989 to October 1989, Vice President, the Registrant. Dr. Comer has been Senior Vice President, Strategic Management, Bristol-Myers Squibb Pharmaceutical Group of the Registrant since March 1990.

RAYMOND C. EGAN - From January 1984 to January 1986, President of Mead Johnson and Company, a subsidiary of the Registrant. From January 1986 to May 1988, Executive Vice President and from May 1988 to October 1989, President, U.S. Pharmaceutical and Nutritional Group, the Registrant. From January 1985 to May 1988, Vice President, the Registrant. From May 1988 to October 1989, Senior Vice President, the Registrant. Mr. Egan has been President, Bristol-Myers U.S. Pharmaceutical, Mead Johnson Worldwide Nutritional and Bristol-Myers Squibb Diagnostic Group of the Registrant since October, 1989.

RODOLPHE HAMEL - From January 1978 to June 1989, Associate General Counsel, the Registrant. From June 1989 to present, General Counsel of the Registrant. Mr. Hamei has been a Vice President of the Registrant since January 1983.

THOMAS H. HUGHES - From January 1979 to August 1988. President, Zimmer, Inc., a subsidiary of the Registrant. From August 1988 to October 1989, President, Health Care Group, the Registrant. From January 1980 to October 1981, Vice President, the Registrant. From October 1981 to October 1989, Senior Vice President, the Registrant. Mr. Hughes has been President, Bristol-Myers Health Care Group of the Registrant since October 1989.

ABRAMO VIRGILIO, Ph.D. - From January 1982 to October 1989, President, Science and Technology Group, the Registrant. From January 1982 to December 1989, Senior Vice President, the Registrant. Dr. Virgilio has been President, Technical Operations, Bristol-Myers Squibb Pharmaceutical Group of the Registrant since October 1989.

KENNETH E. WEG - From 1983 to 1987, President Europe, Middle East and Africa Division, Bristol-Myers International Group, the Registrant. From 1987 to 1988, President, Squibb International and Group Vice President, Squibb Corporation. From 1988 to October 1989, President, Squibb Pharmaceutical Group and Group Vice President, Squibb Corporation. Mr. Weg has been President, Squibb U.S. and Bristol-Myers Squibb International Pharmaceutical Group of the Registrant since October 1989. HARRISON M. BAINS, JR. - From March 1982 to October 1985, Senior Vice President and Treasurer of Nabisco Brands, Inc. From October 1985 to November 1986, Vice President and Treasurer of RJR Nabisco, Inc. From November 1986 to July 1987, Senior Vice President and Treasurer of RJR Nabisco, Inc. From July 1987 to December 1988, Senior Vice President and Component Executive of Chase Manhattan Bank, N.A. Mr. Bains has been Treasurer and a Vice President of the Registrant since December 1988.

PAMELA D. KASA - From January 1982 to May 1989, Counsel, the Registrant. From May 1989 to present, Assistant General Counsel of the Registrant. Ms. Kasa has been Secretary of the Registrant since June 1982 and a Vice President of the Registrant since January 1985.

PARTI

Item 5. MARKET FOR THE REGISTRANT'S COMMON STOCK AND RELATED STOCKHOLDER MATTERS.

Reference is made to Market Prices and Dividends appearing on page 88 of the 1989 Annual Report to Stockholders which are incorporated herein by reference in this Form 10-K Annual Report and made a part hereof in response to the information required by Item 5.

The approximate number of holders of common stock at December 31, 1989 was 89,924.

The number of record holders is based upon the actual number of holders registered on the books of Bristol-Myers Squibb at such date and does not include holders of shares in "street names" or persons, partnerships, associations, corporations or other entities identified in security position listings maintained by depository trust companies.

liem 6. SELECTED FINANCIAL DATA.

Reference is made to the financial information for the years 1985-1989 included in the Ten-Year Financial Summary, pages 102 and 103 of the 1989 Annual Report to Stockholders which is incorporated herein by reference in this Form 10-K Annual Report and made 2 part hereof in response to the information required by Item 6.

Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

Reference is made to the discussion and analysis of the financial condition and results of operations for 1989, 1988, and 1987 included in the Financial Review, pages 82 through 87 of the 1989 Annual Report to Stockholders which is incorporated by reference in this Form 10-K Annual Report and made a part hereof in response to the information required by Item 7.

Item 8. FINANCI STATEMENTS AND SUPPLEMENTRY DATA.

Reference is made to the consolidated financial statements included on pages 89 through 100 and the report thereon of Price Waterhouse dated January 24, 1990, set forth on page 101 of the 1989 Annual Report to Stockholders which are incorporated herein by reference and made a part hereof in response to the information required by Item 8.

Reference is made to the Quarterly Financial Data (Unaudited) on page 88 of the 1989 Annual Report to Stockholders which is incorporated herein by reference and made a part hereof in response to the information required by Item 8.

PART III

Item 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE.

None.

Item 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT.

- (a) Reference is made to the Proxy Statement for the Annual Meeting of Stockholders on May 1, 1990 with respect to the Directors of the Registrant which is incorporated herein by reference and made a part hereof in response to the information required by Item 10.
- (b) The information required by Item 10 with respect to the Executive Officers of the Registrant has been included in Part IA of this Form 10-K Annual Report in reliance on General Instruction G of Form 10-K and Instruction 3 to Item 401(b) of Regulation S-K.

Item 11. EXECUTIVE COMPENSATION.

Reference is made to the Proxy Statement for the Annual Meeting of Stockholders on May 1, 1990 with respect to Executive Compensation which is incorporated herein by reference and made a part hereof in response to the information required by Item 11.

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT.

Reference is made to the Proxy Statement for the Annual Meeting of Stockholders on May 1, 1990 with respect to the security ownership of certain beneficial owners and management which is incorporated herein by reference and made a part hereof in response to information required by ltem 12.

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS.

Reference is made to the Proxy Statement for the Annual Meeting of Stockholders on May 1, 1990 with respect to certain relationships and related transactions which is incorporated herein by reference and made a part hereof in response to the information required by Item 13.

PARTIV

Item 14. EXHIBITS, FINANCIAL STATEMENT SCHEDULES, AND REPORTS ON FORM 8-K.

a) 1. Financial Statements

Reference is made to the consolidated financial statements appearing on pages 89 through 100 of the 1989 Annual Report to Stockholders and the report thereon of Price Waterhouse dated January 24, 1990, appearing on page 101 of the 1989 Annual Report to Stockholders which are incorporated herein by reference and made a part hereof in response to the information required by Item 14. With the exception of the aforementioned information and the information incorporated in cover page. Items 1, 2, 5, 6, 7 and 8, the 1989 Annual Report to Stockholders is not to be deemed filed as part of this Form 10-K Annual Report.

2. Financial Statement Schedules

The following additional financial data, together with the report thereon of Price Waterhouse dated January 24, 1990 appearing on page 20 of this Form 10-K. Annual Report should be read in conjunction with the consolidated financial statements in the 1989 Annual Report to Stockholders. All other schedules not included with this additional financial data are omitted because they are not applicable or the required information is included in the financial statements or notes thereto. All subsidiaries, except fifteen subsidiaries which in the aggregate are inconsequential in relation to the consolidated financial statements, are wholly-owned.

	Schedule Number
Marketable securities - other investments	
Property, plant and equipment	v
Accumulated depreciation and amortization of property,	
plant and equipment	VI
Valuation and qualifying accounts	VIII
Short-term borrowings	IX
Supplementary income statement information	X

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- Exhibits (mested by numbers corresponding to the Exhibit Table of Item 601 in Regulation S-K).
- 3a. Restated Certificate of Incorporation of Bristol-Myers Squibb Company as adopted by the Board of Directors on November 8, 1989 and filed with the Secretary of State of Delaware on November 3, 1989 (physically filed in Registration Statement No.33-33682, Form S-3, under the Securities Act of 1933 as Exhibit 4(a)).
- 3b. Bylaws of Bristol-Myers Squibb Company, as amended to January 8, 1990 (physically filed in Registration Statement No.33-33682, Form S-3, under the Securities Act of 1933 as Exhibit 4(b)).
- 4a. Copy of Letter of Agreement dated March 28, 1984 pursuant to Item 601 (b)
 4 (iii) of Regulation S-K (physically filed in Form 10-K, File No.1-1136, for the year ended December 31, 1983 as Exhibit No.4).
- 4b. Form of Rights Agreement, dated as of December 4, 1987 between Bristol-Myers Squibb Company and Manufacturers Hanover Trust Company (physically filed in Form 8-A, File No.1-1136, December 10, 1987 as Exhibit No.1, as amended by Amendment No.1 (physically filed as Exhibit 1 to the Registrant's Form 8 dated July 27, 1989)).
- 10a. Copy of Bristol-Myers Squibb Company 1975 Stock Option Plan, as amended to February 4, 1980 (physically filed in Registration No.2-61081 (Amendment No.2, Post-Effective Amendment No.2) under the Securities Act of 1933 as Exhibit No.1(1)).
- 10b. Copy of Bristol Myers Squibb Company 1983 Stock Option Plan as adopted by the Board of Directors on May 2, 1983 (physically filed in Form 10-K, File No.1-1136, for the year ended December 31, 1983 as Exhibit No.10(d)).
- 10c. Copy of the Board of Directors' resolution dated February 10, 1983 amending the Bristol-Myers Squibb Company 1975 Stock Option Plan, the Bristol-Myers Squibb Company 1966 Qualified and Non-Qualified Stock Option Plan and The Qualified and Non-Qualified Stock Option Plan for Officers and Key Employees of Unitek Corporation (physically filed in Form 10-K, File No.1-1136, for the year ended December 31, 1983 as Exhibit No.10(h)).
- 10d. Copy of the Board of Directors' resolution dated July 18, 1983 amending the Bristol-Myers Squibb Company 1966 Qualified and Non-Qualified Stock Option Plan, the Bristol-Myers Squibb Company 1975 Stock Option Plan and The Qualified and Non-Qualified Stock Option Plan for Officers and Key Employees of Unitek Corporation (physically filed in Form 10-K, File No.1-1136, for the year ended December 31, 1983 as Exhibit No.10(i)).
- 10e. Copy of the Board of Directors' resolution dated April 7, 1987 amending the Bristol-Myers Squibb Company 1975 Stock Option Plan and the Bristol-Myers Squibb Company 1983 Stock Option Plan (physically filed in Form 10-K, File No.1-1136, for the year ended December 31, 1987 as Exhibit No.10(i)).

- 10f. Copy of Genetic Systems Corporation 1981 Stock Option Plan, as amended (physically filed in Post-Effective Amendment No.1 on Form S-8 to Bristol-Myers Squibb Company's Registration Statement No.33-2639 on Form S-4 as Annex A).
- 10g. Copy of Squibb Corporation 1986 Option, Restricted Stock and Performance Unit Plan, as amended (physically filed in Squibb Corporation Form 10-K, File No.1-5514, for the year ended December 31, 1988 as Exhibit No.10(k)).
- 10h. Copy of Bristol-Myers Squibb Company Performance Incentive Plan (physically filed in Form 10-K, File No.1-1136, for the year ended December 31, 1978 as Exhibit No.2).
- 10i. Copy of Bristol-Myers Squibb Company Long-Term Performance Award Plan, as amended to April 24, 1980 (physically filed in Form 10-K, File No.1-1136, for the year ended December 31, 1981 as Exhibit No.10(e)).
- 10j. Copy of the Bristol-Myers Squibb Company Amended and Restated Deferred Compensation Plan for Non-Employee Directors adopted September 9, 1985 (physically filed in Form 10-K, File No.1-1136, for the year ended December 31, 1987 as Exhibit No.19(a)).
- Copy of Bristol-Myers Squibb Company 1987 Deferred Compensation Plan for Non-Employee Directors adopted January 20, 1987 (physically filed in Form 10-K, File No.1-1136, for the year ended December 31, 1986 as Exhibit No.19(a)).
- 101. Copy of Board of Directors' resolution dated March 7, 1989 amending the Bristol-Myers Squibb Company 1987 Deferred Compensation Plan for Non-Employee Directors effective January 20, 1987 (physically filed in Form 10-K, File No.1-1136, for the year ended December 31, 1988 as Exhibit No.19(a)).
- 10m. Copy of the Benefit Equalization Plan of Bristol-Myers Squibb Company and its Subsidiary or Affiliated Corporations Participating in the Bristol-Myers Squibb Company Retirement Income Plan as amended and restated as of January 1, 1989.
- 10n. Copy of the Benefit Equalization Plan of Bristol-Myers Squibb Company and its Subsidiary or Affiliated Corporations Participating in the Bristol-Myers Squibb Company Savings and Investment Program as amended and restated as of January 1, 1989.
- 100. Copy of Squibb Corporation Supplementary Pension Plan (physically filed in Squibb Corporation Form 10-K, File No. 1-5514 for the year ended December 31, 1988 as Exhibit No.10(n)).
- 10p. Form of Employment Severance Agreement entered into by Squibb Corporation with each of its Officer-Directors and amendment thereto (physically filed in Squibb Corporation Form 10-Q, File No.1-5514 for the quarter ended June 30, 1988 as Exhibit No.10(a) and in Squibb Corporation Form 10-K, File No.1-5514 for the year ended December 31, 1988 as Exhibit No.10(b)).
- 10q. Copy of Squibb Corporation Special Severance Arrangements Relating to Change in Control (physically filed in Squibb Corporation Form 10-K, File No.1-5514, for the year ended December 31, 1988 as Exhibit No.10(p)).

- 10r. Copy of cutive Severance Agreement Relation to Change in Control adopted by the Board of Directors on July 26, 1989 (physically filed in Form 10-Q, File No.1-1136, for the quarter ended June 30, 1989, as Exhibit No.10(d)).
- 10s. Copy of Employment Agreement for certain employees of Squibb Corporation.
- 10t. Copy of Bristol-Myers Squibb Company Restricted Stock Award Plan adopted by the Board of Directors on November 7, 1989.
- Copy of Bristol-Myers Squibb Company Retirement Income Plan for Non-Employee Directors as amended to October 3, 1989.
- 10v. Copy of Board of Directors' resolution dated October 3, 1989 amending the Registrant's name to Bristol-Myers Squibb Company as it appears in all of the Registrant's plans, agreements, legal documents and other writings.
- 11. Computation of Per Share Earnings.
- 13. Bristol-Myers Squibb Company Annual Report to Stockholders for Fiscal Year Ended December 31, 1989. With the exception of those portions which are incorporated by reference in this Form 10-K Annual Report, the 1989 Annual Report to Stockholders is not to be deemed filed as part of this report.
- 19a. Copy of Board of Directors' resolution dated October 3, 1989 amending the Bristol-Myers Squibb Company 1987 Deferred Compensation Plan for Non-Employee Directors effective October 3, 1989.
- 19b. Copy of Board of Directors' resolutions dated April 4, 1989 amending the Bristol-Myers Squibb Company Savings and Investment Program effective April 4, 1989.
- 19c. Copy of Board of Directors' resolutions dated July 17, 1989 amending the Bristol-Myers Squibb Company Savings and Investment Program and the Trust Agreement between Bristol-Myers Squibb Company and Bankers Trust Company as Trustee of the Bristol-Myers Squibb Company Savings and Investment Program effective July 17, 1989.
- 19d. Copy of Amendment to the Bristol-Myers Squibb Company Savings and Investment Program effective January 1, 1989 as authorized by the Board of Directors' resolution dated May 3, 1982.
- 22. Subsidiaries of the Registrant.
- 24. Consent of Price Waterhouse.
- Reports on Form 8-K

The Registrant filed a Current Report on Form 8-K dated October 4, 1989 in connection with the merger of Squibb Corporation with a subsidiary of Bristol-Myers Company and the change of the name of Bristol-Myers Company to Bristol-Myers Squibb Company.

Pursuant to the requirements of Section 13 or 15 (d) of the Securities Exchange Act of 1934, the Registrant has duly caused this Report to be signed on its behalf by the undersigned, thereunto duly authorized.

> BRISTOL-MYERS SQUIBB COMPANY (Regi. rant)

By /s/ Richard L. Gelb Richard L. Gelb Chairman of the Board

> March 27, 1990 Date

Pursuant to the requirements of the Securities Exchange Act of 1934, this Report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

Signature

Chairman of the Board and Chief Executive Officer. Director (Principal Executive Officer)

Title

March 27, 1990

Date

Michael E. Autera (Michael E. Autera)

Richard L. Gelb

(Richard L. Gelb)

Executive Vice President (Principal Financial Officer) March 27, 1990

/s/ Anthony W. Ruggiero (Anthony W. Ruggiero)

Senior Vice President and Controller (Principal Accounting Officer)

March 27, 1990

Is/ Ray C. Adam (Ray C. Adam)

Director

March 24, 1990

/s/ Robert E. Allen (Robert E. Allen)

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Director

March 26, 1990

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(Wayne A. Davidson) (Wayne A. Davidson) Director and Executive Vice President

March 27, 1990

(William M. Ellinghaus) (William M. Ellinghaus)

Director

March 23, 1990

Richard M. Furlaud (Richard M. Furlaud)

Director and President

March 27, 1990

<u>Ellen V. Futter</u> (Ellen V. Futter)

Director

Director

Director

Director

March , 1990

March 23, 1990

March 27, 1990

(Louis V. Gerstner, Jr.)

Edgar Haber, M.D. (Edgar Haber, M.D.)

S/ Charles A. Heimbold, Jr. (Charles A. Heimbold, Jr.) Director and Executive Vice

President March 27, 1990

(Henry H. Henley, Jr.)

Vice Chairman of the Board and Director

March , 1990

March . 1990

(William R. Miller)

(Alexander Rich, M.D.)

Director

March 23, 1990

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James D. Robinson III (James D. Robinson III)

Director

March 28, 1990

Andrew C. Sigler (Andrew C. Sigler)

Director

March 26, 1990

/s/ Rawleigh Warner, Jr. (Rawleigh Warner, Jr.)

Director

March 27, 1990



To the Board of Directors of Bristol-Myers Squibb Company

Our audits of the consolidated financial statements referred to in our report dated January 24, 1990 appearing on page 101 of the 1989 Annual Report to Stockholders of Bristol-Myers Squibb Company (which report and consolidated financial statements are incorporated by reference in this Annual Report on Form 10-K) also included an audit of the Financial Statement Schedules listed in Item 14(a) of this Form 10-K. In our opinion, these Financial Statement Schedules present fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements.

PRICE WATERHOUSE New York, New York January 24, 1990

BRISTOL-MYERS SQUIBB COMPANY MARKETABLE SECURITIES - OTHER INVESTMENTS December 31, 1989 (in millions of dollars)

Name of issuer and <u>little of each issue</u>	Number of shares or units - principal amount of bonds and notes	Cost of cach issue	Market value of cach issue at balance sheet date	Amount at which each security issue carried in the balance sheet
Marketable Securities				
United States Government Treasury Bills	\$1,280	\$1,281	\$1,274	\$1,281
Government National Mortgage Association certificates, 7.25% to 8.50%, due 2003 to 2019	\$ 56	59	53	59
Puerto Rico Governmental Agency Bonds and Notes	\$ 118	118	117	118
Puerto Rican Repurchase Agreements	\$ 96	96	96	96
Foreign Bank Notes	\$ 28	28	28	28
Other short-term investments (a)		15	15	15
		\$1,597	\$1,583	\$1,597
Other Investments (b)				
Long-term marketable notes and bonds	\$ 22	\$ 22	\$ 22	\$ 22
Other long-term investments (a)		24	25	24
		\$ 46	\$ 47	\$ 40

(a) Securities of any one individual issuer do not exceed 2% of total assets of the Registrant.

(b) Included in Other Assets in the Consolidated Balance Sheet.

BRISTOL-MYERS SQUIBB COMPANY PROPERTY, PLANT AND EQUIPMENT (in millions of dollars)

Classification	Balance at beginning of period	Additions _at cost_	Retirements or sales	Transfers between classifications	Other <u>changes</u> (a)	Balance at end <u>of period</u>
For the year ended December 31, 1989						
Land	\$ 119	\$ 2	5	\$ 21	\$ (2)	\$ 140
Machinery equipment and fistures	1,079	15	8	59	(8)	1,137
Construction in program	1,782	52	43	197	(29)	1,959
construction in progress		493		(277)	(13)	568
	3 3,340	\$ 562	\$ 52	5	\$ (52)	\$ 3,804
For the year ended December 31, 1988						
Land	\$ 91	\$ 28	\$ 2	\$ 3	\$ (1)	\$ 110
Buildings	1,013	12	8	64	(1)	1070
Machinery, equipment and fixtures	1,606	39	57	196	(2)	1,079
Construction in progress	240	392	2	(263)	(1)	1,702
	\$ 2,950	\$ 471	\$ 69	\$	\$ (6)	\$ 3,346
For the year ended December 31, 1987						
Land	\$ 73	5	8 2	6 A.		
Buildings	842			a 18	\$ 2	\$ 91
Machinery, equipment and fixtures	1.422	38	11	10.5	20	1,013
Construction in progress	272	310	3	(146)	24	1,606
	\$ 2,609	\$ 357	\$ 68	5	\$ 52	\$ 2,950

(a) Primarily effect of translation on account balance, and in 1987 includes amounts in connection with the sale of certain businesses.

The range of annual rates used in computing provisions for depreciation was 2% to 20% for buildings and 5% to 33% for equipment.

Schedule V

Schedule VI

BRISTOL-MYERS SQUIBB COMPANY ACCUMULATED DEPRECIATION AND AMORTIZATION OF PROPERTY, PLANT AND EQUIPMENT (in millions of dollars)

Description	Balance at beginning of period	Additions charged to costs and <u>expenses</u>	Retirements renewals and replacements	Other changes (a)	Balance at end of period
December 31, 1989				×	
Buildings Machinery, equip:nent	S 274	\$ 38	\$ 3	\$ 80	\$ 389
and fixtures	<u>884</u> \$ <u>1,158</u>	<u>158</u> S <u>196</u>	<u>30</u> <u>\$ 33</u>	<u>53</u> S <u>133</u>	<u>1.065</u> S <u>1.454</u>
For the year ended December 31, 1988					
Buildings Machinery, equipment	\$ 242	\$ 35	\$ 3	s .	S 274
and fixtures	<u>51.023</u>	<u>150</u> <u>\$ 185</u>	<u>45</u> <u>5 48</u>	$\underline{\overset{(2)}{\underline{\mathbb{S}}(2)}}$	<u>884</u> <u>\$1.158</u>
For the year ended December 31, 1987					
Buildings Machinery, equipment	\$ 213	\$ 32	\$ 10	S 7	\$ 242
and fixtures	<u>680</u> \$ <u>893</u>	129 \$_161	<u>38</u> \$ <u>48</u>	<u>10</u> \$ <u>17</u>	<u>781</u> \$1.023

(a) Includes effect of translation on account balance. In 1989, also includes amounts recorded in connection with the charge for integrating businesses, and in 1987 includes amounts related to the sale of certain businesses.

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BRISTOL-MYERS SQUIBB COMPANY VALUATION AND QUALIFYING ACCOUNTS (in millions of dollars)

95

Description	Balance at beginning of period	Additions charged to costs and <u>expenses</u>	bad debts written off and cash <u>discounts</u>	Balance at end <u>of period</u>
Allowances for discounts and doubtful accounts				
For the year ended December 31, 1989	<u>\$ 63</u>	<u>\$ 24</u>	<u>\$ 22</u>	<u>\$ 65</u>
For the year ended December 31, 1988	<u>\$ 53</u>	<u>\$ 30</u>	<u>\$ 20</u>	<u>\$ 63</u>
For the year ended December 31, 1987	<u>\$ 52</u>	<u>\$ 23</u>	<u>\$ 22</u>	\$ 53

BRISTOL-MYERS SQUIBB COMPANY SHORT-TERM BORROWINGS (in millions of dollars)

Category of aggregate short-term borrowings	Balance at end of year (a)	Weighted average interest rate	Maximum amount outstanding during the year	Average amount outstanding during <u>the vear(b)</u>	Weighted average interest rate during the year (c)
For the year ended December 31, 1989					
Payable to banks Holders of commercial	S266	13%	\$296	\$233	1275
paper	<u>\$266</u>		<u>507</u> <u>\$803</u>	<u>247</u> <u>\$480</u>	
For the year ended December 31, 1988					
Payable to banks Holders of commercial	\$220	1000	\$304	\$251	90%
paper	<u>448</u> <u>5668</u>	90%	<u>481</u> <u>\$785</u>	398 5649	Ma proc processes addresses
For the year ended December 31, 1987					
Payable to banks Holders of commercial	\$247	10%	S266	\$249	* <i>C</i> -0
paper	<u>150</u> <u>\$397</u>	8%	<u>245</u> \$511	<u>81</u> \$330	- 0%

 Excludes the current portion of long-term debt of \$15 million, \$11 million and \$18 million in 1989, 1988 and 1987, respectively.

(b) Represents the arithmetic mean of the month-end balances for the period outstanding.

(c) The weighted average interest rate during the year was determined by dividing annual interest expense on short-term borrowings by average short-term borrowings.

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BRISTOL-MYERS SQUIBB COMPANY SUPPLEMENTARY INCOME STATEMENT INFORMATION (in millions of dollars)

[town	Char	rged to Costs and Expenses	
item	1989	1988	1987
Maintenance and repairs	<u>S_104</u>	<u>5 98</u>	<u>\$ 87</u>
Advertising Product promotion	\$ 526 700	\$ 506 685	\$ 454 646
	<u>\$1.226</u>	\$1.191	\$1,100
Depreciation and amortization of property, plant and equipment	5 196	<u>\$ 185</u>	<u>\$ 161</u>

 EX	nı.	110	NO	2. 3	nd	De	ser	ipt	ion	
										And Designed

- 3a. Restated Certificate of Incorporation of Bristol-Myers Squibb Company as adopted by the Board of Directors on November 8, 1989 and fi'ed with the Secretary of State of Delaware on November 3, 1989.
- Bylaws of Bristol-Myers Squibb Company, as amended to January 8, 1990.
 - Copy of Letter of Agreement dated March 28, 1984 pursuant to Item 601(b) 4 (iii) of Regulation S-K.

4a.

- 4b. Form of Rights Agreement, dated as of December 4, 1987 between Bristol-Myers Squibb Company and Manufacturers Hanover Trust Company, as amended by Amendment No.1.
- Copy of Bristol-Myers Squibb Company 1975
 Stock Option Plan, as amended to February 4, 1980.
- 10b. Copy of Bristol-Myers Squibb Company 1983 Stock Option Plan as adopted by the Board of Directors on May 2, 1983.

10c. Copy of Board of Directors' resolution dated February 10, 1983 amending the Bristol-Myers Squibb Company 1975 Stock Option Plan, the Bristol-Myers Squibb Company 1966 Qualified and Non-Qualified Stock Option Plan and The Qualified and Non-Qualified Stock Option Plan for Officers and Key Employees of Unitek Corporation. Physically filed in Registration Statement No.33-33682, Form S-3, under the Securities Act of 1933 as Exhibit No.4(a).

Physically filed in Registration Statement No.33-33682, Form S-3, under the Securities Act of 1933 as Exhibit No.4(b).

Physically filed in Form 10-K, File No.1-1136, for the year ended December 31, 1983 as Exhibit No.4.

Physically filed in Form 8-A, File No.1-1136, December 10, 1987 as Exhibit No.1 and in Form 8 dated July 27, 1989 as Exhibit No.1.

Physically filed in Registration No.2-61081 (Amendment No.2. Post-Effective Amendment No.2) under the Securities Act of 1933 as Exhibit No.1(1).

Physically filed in Form 10-K, File No.1-1136, for the year ended December 31, 1983 as Exhibit No.10(d).

Physically filed in Form 10-K, File No.1-1136, for the year ended December 31. 1983 as Exhibit No.10(h).



Exhibit No. and Description

- 10d. Copy of the Board of Directors' resolution dated July 18, 1983 amending the Bristol-Myers Squibb Company 1966 Qualified and Non-Qualified Stock Option Plan, the Bristol-Myers Squibb Company 1975 Stock Option Plan and The Qualified and Non-Qualified Stock Option Plan for Officers and Key Employees of Unitek Corporation.
- 10e. Copy of the Board of Directors' resolution dated April 7, 1987 amending the Bristol-Myers Squibb Company 1975 Stock Option Plan and the Bristol-Myers Company Squibb 1983 Stock Option Plan.
- Copy of Genetic Systems Corporation 1981 Stock Option Plan as amended.
- 10g. Copy of Squibb Corporation 1986 Option, Restricted Stock and Performance Unit Plan, as amended.
- 10h. Copy of Bristol-Myers Squibb Company Performance Incentive Plan.
- Copy of Bristol-Myers Squibb Company Long-Term Performance Award Plan, as amended to April 24, 1980.
- 10j. Copy of the Bristol-Myers Squibb Company Amended and Restated Deferred Compensation Plan for Non-Employee Directors adopted September 9, 1985.

Physically filed in Form 10-K, File No.1-1136, for the year ended December 31, 1983 as Exhibit No.10(i).

Physically filed in Form 10-K, File No.1-1136, for the year ended December 31, 1987 as Exhibit No.10(i).

Physically filed in Post-Effective Amendment No.1 on Form S-8 to Bristol-Myers Squibb Company's Registration Statement No.33-2639 on Form S-4 as Annex A.

Physically filed in Squibb Corporation Form 10-K, File No.1-5514, for the year ended December 31, 1988 as Exhibit No.10(k).

Physically filed in Form 10-K, File No.1-1136, for the year ended December 31, 1978 as Exhibit No.2.

Physically filed in Form 10-K, File No.1-1136, for the year ended December 31, 1981 as Exhibit No.10(e).

Physically filed in Form 10-K, File No.1-1136, for the year ended December 31, 1987 as Exhibit No.19(a).

Exhibit No. and Description

- Copy of Bristol-Myers Squibb Company 1987 Deferred Compensation Plan for Non-Employee Directors adopted January 20, 1987.
- Ol. Copy of Board of Directors' resolution dated March 7, 1989 amending the Bristol-Myers Squibb Company 1987 Deferred Compensation Plan for Non-Employee Directors effective January 20, 1987.
- 10m. Copy of the Benefit Equalization Plan of Bristol-Myers Squibb Company and its Subsidiary or Affiliated Corporations Participating in the Bristol-Myers Squibb Company Retirement Income Plan as amended and restated as of January 1, 1989.
- 10n. Copy of the Benefit Equalization Plan of Bristol-Myers Squibb Company and its Subsidiary or Affiliated Corporations Participating in the Bristol-Myers Squibb Company Savings and Investment Program as amended and restated as of January 1, 1989.
- 100. Copy of Squibb Corporation Supplementary Pension Plan.
- 10p. Form of Employment Severance Agreement entered into by Squibb Corporation with each of its Officer-Directors and amendment thereto.
- 10q. Copy of Squibb Corporation Special Severance Arrangements Relating to Change in Control.
- 10r. Copy of Executive Severance Agreement Relating to Change in Control adopted by the Board of Directors on July 26, 1989.

Physically filed in Form 10-K, File No.1-1136, for the year ended December 31, 1986 as Exhibit No.19(a).

Physically filed in Form 10-K, File No.1-1136, for the year ended December 31, 1988 as Exhibit No.19(a).

Physically filed in Squibb Corporation Form 10-K, File No.1-5514 for the year ended December 31, 1988 as Exhibit No.10(n).

Physically filed in Squibb Corporation Form 10-Q. File No.1-5514 for the quarter ended June 30, 1988 as Exhibit No.10(a) and in Squibb Corporation Form 10-K. File No.1-5514 for the year ended December 31, 1988 as Exhibit No.10(b).

Physically filed in Squibb Corporation Form 10-K, File No.1-5514, for the year ended December 31, 1988 as Exhibit No.10(p).

Physically filed in Form 10-Q, File No.1-1136, for the quarter ended June 30, 1989 as Exhibit 10(d). EXHIBIT INDEX

 Copy of Employment Agreement for certain employees of Squibb Corporation. Copy of Bristol-Myers Squibb Company Restricted Stock Award Plan adopted by the Board of Directors on November 7, 1989. Copy of Bristol-Myers Squibb Company Retirement Income Plan for Non-Employee Directors as amended to October 3, 1989. Copy of Board of Directors' resolution dated October 3, 1989 amending the Registrant's name to Bristol-Myers Squibb Company as it appears in all of the Registrant's plans, agreements, legal documents and other writings. Computation of Per Share Earnings. Bristol-Myers Squibb Company Annual Report to Stockholders for Fiscal Year Ended December 31, 1989. With the exception of those portions which are incorporated by reference in this Form 10-K Annual Report, the 1989 Annual Report to Stockholders is not to be deemed filed as part of this report. Copy of Board of Directors' resolutions dated October 3, 1989 amending the Bristol-Myers Squibb Company 1987 Deferred Compensation'Plan for Non-Employee Directors effective October 3, 1989. Copy of Board of Directors' resolutions dated April 4, 1989 amending the Bristol-Myers Squibb Company Savings and Investment Program effective April 4, 1989. Copy of Board of Directors' resolutions dated July 17, 1989 amending the Bristol-Myers Squibb Company Savings and Investment Program and the Trust Agreement between Bristol-Myers Squibb Company avings and Investment Program and the Trust Agreement between Bristol-Myers Squibb Company Savings and Investment Program affective July 17, 1989. 		Exhibit No. and Description
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 Ou. Copy of Bristol-Myers Squibb Company Retirement Income Plan for Non-Employee Directors as amended to October 3, 1989. Ov. Copy of Board of Directors' resolution dated October 3, 1989 amending the Registrant's name to Bristol-Myers Squibb Company as it appears in all of the Registrant's plans, agreements, legal documents and other writings. Computation of Per Share Earnings. Bristol-Myers Squibb Company Annual Report to Stockholders for Fiscal Year Ended December 31, 1989. With the exception of those portions which are incorporated by reference in this Form 10-K Annual Report, the 1989 Annual Report to Stockholders is not to be deemed filed as part of this report. 9a. Copy of Board of Directors' resolutions dated October 3, 1989 amending the Bristol-Myers Squibb Company 1987 Deferred Compensation Plan for Non-Employee Directors effective October 3, 1989. 9b. Copy of Board of Directors' resolutions dated April 4, 1989 amending the Bristol-Myers Squibb Company Savings and Investment Program effective April 4, 1989. 9c. Copy of Board of Directors' resolutions dated July 17, 1989 amending the Bristol-Myers Squibb Company Savings and Investment Program and the Trust Agreement between Bristol-Myers Squibb Company Savings and Investment Program and the Trust Agreement between Bristol-Myers Squibb Company Savings and Investment Program effective July 17, 1989. 	Ot.	Copy of Bristol-Myers Squibb Company Restricted Stock Award Plan adopted by the Board of Directors on November 7, 1989.
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 9b. Copy of Board of Directors' resolutions dated April 4, 1989 amending the Bristol-Myers Squibb Company Savings and Investment Program effective April 4, 1989. 9c. Copy of Board of Directors' resolutions dated July 17, 1989 amending the Bristol-Myers Squibb Company Savings and Investment Program and the Trust Agreement between Bristol-Myers Squibb Company and Bankers Trust Company as Trustee of the Bristol-Myers Squibb Company Savings and Investment Program effective July 17, 1989. 	91.	Copy of Board of Directors' resolutions dated October 3, 1989 amending the Bristol-Myers Squibb Company 1987 Deferred Compensation Plan for Non-Employee Directors effective October 3, 1989.
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	9c.	Copy of Board of Directors' resolutions dated July 17, 1989 amending the Bristol-Myers Squibb Company Savings and Investment Program and the Trust Agreement between Bristol-Myers Squibb Company and Bankers Trust Company as Trustee of the Bristol-Myers Squibb Company Savings and Investment Program effective July 17, 1989.

Exhibit No. and Description

- 19d. Copy of Amendment to the Bristol-Myers Squibb Company Savings and Investment Program effective January 1, 1989 as authorized by the Board of Directors' resolution dated May 3, 1982.
- 22. Subsidiaries of the Registrant.
- 24. Consent of Price Waterhouse.

APR 0 2 1891

Bristol-Myers Squibb Company ATTN: Mr. George Nagle, Director Environmental, Health and Safety 5 Research Parkway, P.O. Box 5100 Wallingford, CT 06492-7660

Gentlemen:

× .

Enclosed is Check No. 42703 (\$500) which accompanied your February 18, 1991, request for a Financial Assurance and Decommissioning Plan for Materials License 06-27843-02. As stated in Information Notice 90-38, Supplement 1, licensing actions are not required for financial assurance or decommissioning funding plan submittals. Accordingly, the amendment fee is not necessary.

Sincerely,

Signed by: Glenda Jackson

Glenda Jackson, Chief Materials License Fee Section License Fee & Debt Collection Branch Division of Accounting and Finance Office of the Controller

Enclosure: Check No. 42703 (\$500)

DISTRIBUTION: S/F COPY LFDCB R/F (2) DAF/OC R/F GJackson DW/LBRI/Bristol-Myers

OFFICE: OC/LFDCB OC/LFDCB & SURNAME: REJacques: Jv GJackson DATE: 4// /91 4/2/91



(FOR LEMS USE) INFORMATION FROM LTS

LICENSE FEE MANAGEMENT BRANCH, ARM : PROGRAM CODE: 03620 : STATUS CODE: 2 : FEE CATEGORY: 3M : EXP. DATE: 19901130 : FEE COMMENTS:

-

LICENSE FEE TRANSMITTAL

AND

REGIONAL LICENSING SECTIONS

A. REGION 1

BETWEEN:

1. APPLICATION ATTACHED APPLICANT/LICENSEE: BRISTOL-MYERS SQUIBB COMPANY RECEIVED DATE: 910221 DOCKET NO: 3029266 CONTROL NO.: LICENSE NO.: ACTION TYPE: 114227 06=27843=02 AMENDMENT

2. FEE ATTACHED SCOLO AMOUNT: CHECK ND .: 42703

3. COMMENTS

SIGNED ______Mt DATE --- 03/07/9-----B. LICENSE FEE MANAGEMENT BRANCH (CHECK WHEN FEE NOT REQUIRED 1-") 1. FEE CATEGORY AND AMOUNT: 3M 2. CORRECT FEE PAID. APPLICATION MAY BE PROCESSED FOR: AMENDMENT RENEWAL LICENSE 3. OTHER Alta, Jacques

SIGNED DATE



On October 4, 1989, Squibb Corporation joined Bristol-Myers Company. The merger created one of the strongest companies in the world, with leadership positions in four core business areas — pharmaceuticals, consumer products, medical devices and nutritionals.

Letter to Stockholders

he past year was among the most eventful in our history. On October 4th, Squibb joined Bristol-Myers. We are now Bristol-Myers Squibb Company.

In a message to employees on the date the merger became effective, we said, "We are a company clearly dedicated to enhancing life—from the pharmaceuticals we will make and market, to the consumer, health care and nutritional products we will continue to develop and sell. We are a company



Richard L. Gelo Chairman and Chief Executive Officer

that will be strongly oriented to research to a search for breakthrough and innovative products. We are a company on the move a company with the critical mass of financial strength, of scientific research, of marketing expertise and of existing and future products to meet the global challenges we face and to assure us significant future growth."

After several months of working together, Bristol-Myers and Squibb colleagues have seen ample evidence of the combined strength that will enable us to achieve our goal of global preeminence in our pharmaceutical, consumer, medical device and nutritional businesses. In particular, the coordination of sales and marketing activities and the scope and

quality of the combined pharmaceutical research and development effort promise to fulfill the substantial business opportunities we anticipated. The article beginning on page 44, "Bristol-Myers Squibb Company: A Leader in a Global Marketplace," provides a complete description of our businesses.

We also have seen that a merger of this scale will produce opportunities for greater efficiency in administrative and manufacturing areas of the company throughout the world. The savings that result will provide additional resources to invest in the company's future growth and to help offset the Scientist" begins on page 12.

In 1989, worldwide sales increased 7 percent to \$9,189,147,000, compared with \$8,558,315,000 in 1988. Net earnings, including charges for merger and reorganization costs, decreased 40 percent to \$746,775,000. Earnings per share decreased to \$1.43, compared with \$2.39 in 1988.

On January 9, we announced one-time pre-tax charges of \$855 million to fourth quarter 1989 earnings resulting from our plans to integrate the operations of Bristol-Myers and Squibb and to organize our pharmaceutical, consumer, medical device and nutritional businesses on a



Richard M. Furlaud President

global basis. These charges included the costs of reducing the number of production facilities and employment levels worldwide, employee relocations and related items, professional fees and other expenses related to the merger transaction.

ividends per common share were \$2.00, a 19 percent increase over the \$1.68 paid in 1988. An additional dividend increase was announced in December. The 1990 indicated annual payment of \$2.12 represents a 6 percent increase over the \$2.00 paid in 1989. With this 1990 payment, Bristol-Myers Squibb dividends will have increased at a compound growth rate of 19 percent over the past five years and 18 percent over

the past ten years.

Investment in the future growth of our company rose, with research and development expenditures increasing 15 percent to \$789 million and advertising and promotion support increasing to \$1.2 billion.

Domestic sales increased 7 percent, and international sales increased 8 percent. Unfavorable exchange rate fluctuations reduced total company sales growth by approximately 2 percent.

Companywide operating performance was strong throughout 1989. Significant growth was achieved in all major segments of our pharmaceutical business, which has been strengthened greatly by the addition of complementary Squibb products, sales forces and leadership positions in key countries—especially in cardior do rulars.

Capoten (captopril), our leading ACE (angiot *r* & -converting enzyme) inhibitor, continues to achieve strong thin the treatment of hypertension and heart failure, with new clinical studies providing further evidence of its benefits. *Monopril* (fosinopril), a secondOn October 4, 1989, Squibb Corporation joined Bristol-Myers Company. The merger created one of the strongest companies in the world, with leadership positions in four core business areas — pharmaceuticals, consumer products, medical devices and nutritionals.

Financial Highlights

Bristol -Myers Squibb Company

(dollars in millions except per share amounts)	1989*	1988**
Net sales	\$9,189	\$8,558
Provision for integrating businesses	\$ 855	
Earnings before income taxes.	\$1,277	\$1,889
Net earnings	\$ 747	\$1,254
Earnings per common share	\$ 1.43 2.00	\$ 2.39 1.68
Working capital. Capital expenditures. Book value pcr common share.	\$2,893 562 9.67	\$2,809 471 9.49
Number of employees	54,100 89,924	53,200 94,048

*The after-tax effect of the provision for integrating businesses was \$693 million.

**Restated for the merger.

On the cover:

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Letter to Stockholders

he past year was among the most eventful in our history. On October 4th, Squibb joined Bristol-Myers. We are now Bristol-Myers Squibb Company.

In a message to employees on the date the merger became effective, we said, "We are a company clearly dedicated to enhancing life — from the pharmaceuticals we will make and market, to the consumer, health care and nutritional products we will continue to develop and sell. We are a company



Richard L. Gelb Chairman and Chief Executive Officer

that will be strongly oriented to research to a search for breakthrough and innovative products. We are a company on the move a company with the critical mass of financial strength, of scientific research, of marketing expertise and of existing and future products to meet the global challenges we face and to assure us significant future growth."

After several months of working together, Bristol-Myers and Squibb colleagues have seen ample evidence of the combined strength that will enable us to achieve our goal of global preeminence in our pharmaceutical, consumer, medical device and nutritional businesses. In particular, the coordination of sales and marketing activities and the scope and

quality of the combined pharmaceutical research and development effort promise to fulfill the substantial business opportunities we anticipated. The article beginning on page 44, "Bristol-Myers Squibb Company: A Leader in a Global Marketplace," provides a complete description of our businesses.

We also have seen that a merger of this scale will produce opportunities for greater efficiency in administrative and manufacturing areas of the company throughout the world. The savings that result will provide additional resources to invest in the company's future growth and to help offset the
per-share earnings dilution that resulted from the merger.

Years e.go, three primary business goals were set for Bristol-Myers – goals to which Bristol-Myers Squibb will remain committed.

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he first is performance — annual compounded increases in per-share earnings of 15 percent, along with continuing attention to margin improvement and increase or maintenance of market share. In the post-merger years, we expect to do better than 15 percent.

The second goal is product leadership in our core businesses, both in the United States and in key foreign markets, based both upon excellence in marketing of existing products and on our prospects for new product introductions—prospects which, we believe, set us apart from our competitors and exceed the best of our past.

"After several months of working together, Bristol-Myers and Squibb colleagues have seen ample evidence of the combined strength that will enable us to achieve our goal of global preeminence in our pharmaceutical, consumer, medical device and nutritional businesses." The third goal is excellence in research — firmly establishing Bristol-Myers Squibb as one of the world's truly great research-based companies whose commitment to excellence in biomedical science is recognized by the medical and scientific community around the world. TJ e merger has enabled us to bring together two superb and experienced pharmaceutical research and development organizations and has positioned our company to take maximum advantage of the changes now sweeping through the pharmaceutical industry.

Those changes, among them the burgeoning costs of biomedical research and of social programs designed to provide health care — with attendant focus on cost containment, make breakthrough drugs as necessary to maintaining the profitability of a pharmaceutical enterprise as they are essential to providing cost-effective medical care to patients in need. And it is not only in the

pharmaceutical business that we are dependent on the knowledge, the insights and the dedication of our scientists. Discovery and the development of new products are key to the future growth and success of our consumer, medical device and nutritional businesses as well.

Discovery happens in many ways. The process may be methodical and take many years. It may result from a sudden single inspiration. Or plain luck may make the difference. Whatever the process, it is the scientists themselves who make discovery possible, and it is their imagination, their hard work and their commitment that fuel the growth of Bristol-Myers Squibb Company. A "Special Report on the Scientist" begins on page 12.

In 1989, worldwide sales increased 7 percent to \$9,189,147,000, compared with \$8,558,315,000 in 1988. Net earnings, including charges for merger and reorganization costs, decreased 40 percent to \$746,775,000. Earnings per share decreased to \$1.43, compared with \$2.39 in 1988.

On January 9, we announced one-time pre-tax charges of \$855 million to fourth quarter 1989 earnings resulting from our plans to integrate the operations of Bristol-Myers and Squibb and to organize our pharmaceutical, consumer, medical device and nutritional businesses on a



Richard M. Furlaud President global basis. These charges included the costs of reducing the number of production facilities and employment levels worldwide, employee relocations and related items, professional fees and other expenses related to the merger transaction.

ividends per common share were \$2.00, a 19 percent increase over the \$1.68 paid in 1988. An additional dividend increase was announced in December. The 1990 indicated annual payment of \$2.12 represents a 6 percent increase over the \$2.00 paid in 1989. With this 1990 payment, Bristol-Myers Squibb dividends will have increased at a compound growth rate of 19 percent over the past five years and 18 percent over

the past ten years.

Investment in the future growth of our company rose, with research and development expenditures increasing 15 percent to \$789 million and advertising and promotion support increasing to \$1.2 billion.

Domestic sales increased 7 percent, and international sales increased 8 percent. Unfavorable exchange rate fluctuations reduced total company sales growth by approximately 2 percent.

Companywide operating performance was strong throughout 1989. Significant growth was achieved in all major segments of our pharmaceutical business, which has been strengthened greatly by the addition of complementary Squibb products, sales forces and leadership positions in key countries—especially in cardiovasculars.

Capoten (captopril), our leading ACE (angiotensin-converting enzyme) inhibitor, continues to achieve strong growth in the treatment of hypertension and heart failure, with new clinical studies providing further evidence of its benefits. *Monopril* (fosinopril), a second-

generation ACE inhibitor, is awaiting approval by the U.S. Food and Drug Administration and regulatory agencies around the world.

n cholesterol reduction, one of the fastest growing segments of the pharmaceutical market, *Questran* (cholestyramine) continues to gain expanded use worldwide. *Questran Light*, with fewer calories, less bulk and better taste, was introduced in mid-1989 in the U.S. and Europe, and has been well-received. We are awaiting FDA approval to market *Pravachol* (pravastatin), an HMG CoA reductase inhibitor, for use in lowering cholesterol.

Our leadership position in cancer therapy was strengthened by FDA approval to market *Paraplatin* (carboplatin) for use in treating recurrent ovarian cancer, *Ifex* (ifosfamide) for use in treating recurrent testicular cancer, and Mesnex (mesna) for use as a uroprotectant.

"Because of the great dedication, vitality and competitive spirit of our people, we are confident that Bristol-Myers Squibb Company will continue to prosper in the future." Discovery and development of new treatments for Acquired Immune Deficiency Syndrome (AIDS) continues to be a major priority of our anti-infectives research group. FDA approval was received in September to begin Phase II trials of *VIDEX* (ddI) for use in treating AIDS, and for a Treatment Investigational New Drug (IND) protocol under which patients with AIDS or severe AIDS-Related Complex can be treated with *VIDEX* if they are intolerant to treatment with AZT. With the approval of FDA, we are conducting a voluntary compassionate distribution protocol under which *VIDEX* is being provided at no charge to patients in critical need of it, if they are not eligible for either the clinical trials or the Treatment IND protocol.

Preliminary results indicate that *VIDEX* may be less toxic to patients than AZT, which remains the only anti-

viral drug approved for treatment of AIDS. Bristol-Myers Squibb will continue to work closely with the National Cancer Institute, the National Institute for Allergy and Infectious Diseases and the FDA to develop and register this potentially important therapeutic agent as quickly as possible.

Sales of our novel anti-anxiety drug *BuSpar* (buspirone) continue to grow rapidly in the U.S., Europe and elsewhere. It was introduced in Spain in 1989. Public health authorities and physicians are increasingly recognizing *BuSpar*'s efficacy and lack of potential for abuse or physical dependence. A supplemental New Drug Application was submitted in 1989, seeking FDA approval to market *BuSpar* for use in treating anxiety associated with depression, and Phase III clinical trials are underway to evaluate its usefulness in treating depression alone.

Bristol-Myers Squibb is a leader in diagnostic contrast agents, which are used to increase the effectiveness of modern diagnostic imaging techniques such as PET, CAT and MRI scans and sophisticated x-ray techniques. FDA approval was received at the end of 1989 to market *CardioGen-82*, an imaging agent for PET (Positron Emission Tomography) scans used to diagnose heart disease.



William R. Milier Vice Chairman of the Board ur medical device business continued its significant contribution to the company's performance in 1989. Zimmer introduced the Insall/Burstein Posterior Stabilized II Knee and the *MG II* Total Knee System. The Zimmer Anatomic Hip prosthesis, introduced late in 1988, has gained acceptance as part of *The Total System*, the most widely used line of hip replacement products in the world. The company's position in medical devices has been strengthened significantly by the addition of Squibb's medical products group, including ConvaTec, the world leader in ostomy appliances, which are frequently used by patients who have had gastrointestinal or urological surgery.

Our nutritional business continues to grow despite fundamental changes taking place in the U.S. market for infant formula products. Our nutritional products group and Gerber Products Company entered an agreement in 1989 to introduce Gerber Baby Formula. This new brand of formula for well babies was launched in August and is marketed directly to consumers. Commercials and advertisements strongly recommend breastfeeding as the optimal choice and stress the superiority of breastfeeding over any brand of infant formula. Mead Johnson's other infant formulas, including *Enfamil* and *ProSobee*, continue to be promoted only to the medical profession.

Our consumer products businesses continue to perform well in extremely competitive markets. In July, Clairol, the leading haircoloring company in the U.S., introduced *Option* Instant and *Option* Gradual in the men's haircoloring segment. It is estimated that nearly 10 percent of men now color their hair — a percentage that is growing as the population ages.

In late 1989, a new advertising campaign began for Bufferin, fea-

turing Angela Lansbury, star of television's "Murder, She Wrote." FDA currently is reviewing new professional labelling submitted by Bristol-Myers Products for use of aspirin to prevent first heart attacks. The use of aspirin to reduce the risk of a second heart attack already is approved.

growth, particularly in the air fresheners category, where Drackett introduced *Renuzit Freshell* in 1989.

We are pleased to report election of a number of new members to the board of directors since publication of the last annual report, including: Richard M. Furlaud, former chairman and chief executive officer of Squibb Corporation, also elected president of the company with respon-

"The name of our company has changed, but our commitment to the highest standards of excellence, now further enriched by the traditions of Squibb Corporation, remains as strong as ever." sibility for our pharmaceutical business; Wayne A. Davidson, also elected executive vice president of the company; Ellen V. Futter, president, Barnard College; Louis V. Gerstner, Jr., chairman and chief executive officer, RJR Nabisco; Edgar Haber, M.D., president, The Squibb Institute for Medical Research; Charles A. Heimbold, Jr., also elected executive vice president of the company; Alexander Rich, M.D., William Thompson Sedgwick Professor of Biophysics, Department of Biology, Massachusetts Institute of Technolog¹; and Rawleigh Warner, Jr., retired chairman of the board and chief executive officer, Mobil Corporation.

We regret to inform you that Martha Redfield Wallace, president of Redfield Associates, a management consulting firm, and a valued member of the board of directors from 1973 until 1989, died on November 24.

Mrs. Wallace earned the respect and affection of her fellow directors over those years, and we will miss her.

John D. Macomber, chairman of John D. Macomber & Co., a private investment and advisory firm, and former chairman and chief executive officer of Celanese Corporation, retired from the board of directors effective July, 1989, after 11 years of outstanding service, to become president and chairman of the Export-Import Bank of the United States. His advice and counsel served the company well throughout that period and we thank him for his many significant contributions.

As previously announced at the 1989 annual meeting, Arthur J.

Santry, Jr., chairman of Combustion Engineering, retired from the board of directors effective May 2, having reached mandatory retirement age, after more than 22 years of distinguished service to the company. We thank him for his many insights and for his efforts on behalf of our stockholders during those years.

Jan Leschly, former president of Squibb Corporation, resigned to pursue opportunities outside the company, shortly after the merger and his subsequent election to the board. Mr. Leschly was supportive and helpful throughout the merger process. We wish him the best of success.

Michael E. Autera was elected executive vice president of the com-



Left to right:

Wayne A. Davidson Executive Vice President

Michael E. Autera Executive Vice President Administration

Charles A. Heimbold, Jr. Executive Vice President pany. He continues as chief financial officer and retains responsibility for administration.

william T. Comer, Ph.D., was named president, Bristol-Myers Pharmaceutical Research and Bristol-Myers Squibb Licensing Group. Raymond C. Egan was named president, Bristol-Myers U.S. Pharmaceutical, Mead Johnson Worldwide Nutritional and Bristol-Myers Squibb Diagnostics Group. Kenneth E. Weg was named president, Squibb U.S. and Bristol-Myers Squibb International Pharmaceutical Group.

Stephen K. Carter, M.D., was appointed president, Bristol-Myers Pharmaceutical Research and Develop-

ment Division, succeeding Giulio Vita, Ph.D., who was appointed senior vice president and scientific advisor, Bristol-Myers Pharmaceutical Research and Bristol-Myers Squibb Licensing Group. Richard H. Malyan was named president, Bristol-Myers Squibb Consumer Products Group-International. Gerald C. Beddall was named president of Clairol, succeeding C. Benjamin Brooks, Jr., who retired after 28 years of distinguished service, during which he made countless contributions to the company's growth.

Anthony W. Ruggiero was named controller and a senior vice president of the company, succeeding Steven B. Ratoff, who was appointed senior vice president — finance, Bristol-Myers Squibb Pharmaceutical Group. Rodolphe Hamel, a vice president of the company, was appointed general counsel. John D. Glover was named vice president security, succeeding Joseph W. Lucca, who retired after 27 years of dedicated service. Isaac Jarkovsky was named vice president and assistant general counsel — patents, and Margaret E. Maruschak was named vice president—issues management. Richard L. Thompson was named vice president—government affairs, succeeding William G. Greif, who retired after 25 years of distinguished service. Company vice presidents Marion A. Klein, with 24 years of service, Frederick S. Nelson, with 25 years, and Thomas S. White, Jr., with 24 years, also retired after distinguished careers.

Decause of the great dedication, vitality and competitive spirit of our people, we are confident that Bristol-Myers Squibb Company will continue to prosper in the future. The name of our company has changed, but our commitment to the highest standards of excellence, now further enriched by the traditions of Squibb Corporation, remains as strong as ever. The Bristol-Myers Squibb Pledge, printed on the opposite page, reaffirms that commitment and will continue to serve as our operating philosophy in the years ahead.

We are grateful for the hard work and commitment of all of our employees, particularly during this transition period, and we thank all of our stockholders for their continued support.

February 6, 1990

Tichard T. J.M.

Richarc^{*} . Gelb Chairman and Chief Executive Officer

Richard the Furland

Richard M. Furlaud President

The Bristol-Myers Squibb Pledge

To those who use our products...

We affirm Bristol-Myers Squibb's commitment to the highest standards of excellence, safety and reliability in everything we make. We pledge to offer products of the highest quality and to work diligently to keep improving them.

To our employees and those who may join us...

We pledge personal respect, fair compensation and equal treatment. We acknowledge our obligation to provide able and humane leadership throughout the organization, within a clean and safe working environment. To all who qualify for advancement, we will make every effort to provide opportunity.

To our suppliers and customers...

We pledge an open door, courteous, efficient and ethical dealing, and appreciation of their right to a fair profit.

To our shareholders...

We pledge a companywide dedication to continued profitable growth, sustained by strong finances, a high level of research and development, and facilities second to none.

To the communities where we have plants and offices...

We pledge conscientious citizenship, a helping hand for worthwhile causes, and constructive action in support of civic and environmental progress.

To the countries where we do business...

We pledge ourselves to be a good citizen and to show full consideration for the rights of others while reserving the right to stand up for our own.

Above all, to the world we live in...

We pledge Bristol-Myers Squibb to policies and practices which fully embody the responsibility, integrity and decency required of free enterprise if it is to merit and maintain the confidence of our society.

Bristol-Myers Squibb Company

Drs. Karl Erik and ingegerd Hellström, pioneers in modern tumor immunology, joined Oncogen because they wanted to do something more with their discoveries than write papers about them.

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Dr. David Cushman, a codiscoverer of Capoten, says of his vintage comic book collection: "As a scientist you spend an inordinate amount of time reading technical liter-sture that is heavy, even ponderous. Comic books are a nice counterpoint ----they're light and eccepiet."

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"I remember an article I once read about an Italian soccer player, the best in his league," says Dr. William T. Comer, president, Bristol-Myers Pharmaceutical Research and Bristol-Myers Squibb Licensing Group. "They asked him, 'How do you stay on top?' He said, 'I go home every night and watch movies of myself—not out of vanity, but because all the people I compete against are watching those movies too. So, to beat them, I must do something different and better every time I play.'

"I think that's true for anybody who wants to be at the cutting edge of his field," adds Dr. Comer, "especially scientists in the discovery business. The objective should be not just to make a better version of what's already out there, but to develop new concepts, make major leaps in understanding and project your thoughts far beyond what is known."

bor a company like Bristol-Myers Squibb, everything it makes from pharmaceuticals, nonprescription drugs and medical devices, to nutritional products, haircolorings and household care products—rests on a base of scientific research and discovery. The company's success depends on the talents, the inspirations and the hard work of its scientists.

There is no one definition of what makes a good scientist. Nor is there a single overriding motivation that spurs people to choose science as a career. And there is no one type of scientist. Scientists come from a broad range of backgrounds, and become scientists for a varietv of reasons. What seems clear, however, is that most of those who stay with science begin their quests for discovery with an innate sense of curiosity. They ask why. And most of those who succeed in science show a persistence and commitment to find the answers.



At the company's research facility in Wallingford, cloned nervous systemspecific genes are isolated using recombinant DNA technology in an effort to unlock the genetic basis of neurological diseases.

"The great scientist must have boundless curiosity," says Dr. Edgar Haber, president of the Squibb Institute for Medical Research, Princeton, New Jersey. "He —or she—must have the persistence to follow that curiosity until a solution is found. He needs outstanding powers of reason. He must be enough of an optimist to believe that he can find the

solution if he just works hard enough. And his interest in the problem must be intrinsic; that is, he cannot be focused only on concerns of the moment, but he must be seeking to understand some wider mechanism that is fundamental to life.

"Beyond these, the successful scientist has to enjoy interacting with colleagues," Dr. Haber adds.

"This may not be true in certain very solitary fields, like pure mathematics or some branches of theoretical physics. But biology is a social as well as an intellectual discipline. Very few biological discoveries today are made by a single person. You need to have a tight, wellintegrated team beside you. and you need to have a telephone network of colleagues elsewhere with whom you can discuss advances in the field. If you are so worried about protecting intellectual property that you close off this contact, others will soon bypass you."

"The easy things have all been done," notes Dr. Stephen K.Carter, president, Bristol-Myers Pharmaceutical Research and Development Division. "That's why a discovery scientist has to be in touch worldwide with what's going on with others in his field. It has to be done by a multiplicity of people from different disciplines, all working together smoothly

Yutaka Hosnino and Naomi Oda, two scientists in the fermentation research group at the Bristol-Myers Research Institute in Tokyo, collect soil samples that will be screened for substances that may eventually become new therapeutic agents.



"If you aren't at the cutting edge, fairly quickly you are going to find yourself so far behind the pack that you can't catch up."



Dr. Koji Tomita, senior research fellow at the Bristol-Myers Research Institute in Tokyo, has become expert at recognizing the smell of microorganisms found in soil samples in the search for novel therapeutics. He is also an avid collector of rare and exotic butterflies.

as a team."

The problem is especially acute for pharmaceutical researchers because of the rapid pace of biological discovery, says Dr. George J. Todaro, president of Oncogen, the company's Seattle-based biotechnology subsidiary. "Inserting a gene into a foreign cell used to take months; now it takes weeks," says Dr. Todaro. "Decoding a DNA sequence used to take weeks; now it takes days. It's happening at every step. If you aren't at the cutting edge, fairly quickly you are going to find yourself so far behind the pack that you can't catch up."

he influences that mold the scientific mind are many. At the age of 18,

when most young men have much lighter concerns on their minds, Dr. Giulio Vita lost his father and began to lose his country. It happened during the bitter winter of 1944-45. Nazi troops had occupied Dr. Vita's native Hungary the previous spring, and now they were trying to hold the capital city of Budapest—where Dr. Vita and his family lived—against the Soviet onslaught.

"For three months, the fighting went street-to-street and house-to-house," recalls Dr. Vita, now senior vice president and scientific advisor of the Bristol-Myers Pharmaceutical Research and Bristol-Myers Squibb Licensing Group. "Eightyfive percent of the buildings in the city were seriously damaged or destroyed. More than a quarter of the people fled or were killed."

Dr. Vita's father was among the casualties. "He was a member of a committee that was trying to secure food for the people," Dr. Vita says. "One day he wer.t out and never came back. He must have been hit by a bomb or a bullet; we never found out. I later advertised at the place where he was last seen, but there was no trace."

The end of Nazi occupation marked the beginning of a long period of Soviet domination-informal, at first, and then explicit after the Communist takeover in 1948. Dr. Vita found himself again swept up in turmoil during the brief Hungarian Revolution of 1956. "I was working as a department chief in the research group of the pharmaceutical industry in Budapest," he recalls. "I took part in the demonstrations and was on our company's revolutionary committee. We were starting to get organized for a different world when the Russian tanks came and put an end to our hopes. After the revolution collapsed, my family and I escaped Budapest by hiding in a lorry that was transporting vegetables."

The thirst for freedom that drove Dr. Vita to the West has helped shape his goals for research at Bristol-Myers Squibb. "We are trying to keep a very open scientific culture," he says.

'Aithough this is not a university, we encourage people to follow their opinions and come forward with ideas. We appreciate those who raise issues, provoke discussion and contribute to the healthy conflict of opinions. That is why we value very much our Japanese and European colleagues, who not only represent important scientific forces but a different cultural milieu. Bristol-Myers Squibb is a peopleoriented company, nowhere more so than in research."

would like to tell you that all our drugs are planned, predicted and well-thought-out in advance. Thank God, it is not so," says Dr. Comer. "There is still serendipity in drug discovery."

Serendipity, Dr. Comer says, means not only having the good fortune to find something you were not expecting but—even more important—having the wisdom to recognize it once you've found it. "We have several examples of drugs that were discovered at least partly by serendipity," says Dr. Comer, "including one that, to my mind, is among

"After the revolution collapsed, my family and I escaped Budapest by hiding in a lorry that was transporting vegetables."



Dr. Jiri Novotny, director of macromolecular modeling at the Squibb Institute for Medical Research, says that to relax, he plays several instruments, including the bassoon, clarinet and saxophone. At right, an image of a computer-generated model of a herpes virus protein, generated by Dr. Novotny and his group.

the most exciting in recent therapeutics.

"A chemist at Mead Johnson in Evansville synthesized a molecule. We thought it might be an antipsychotic. But when we went into early clinical trials we didn't see any effects, even at very high doses, so we put the compound on the shelf.

"Some time later, we were testing another drug, a drug we thought might have potential as a tranquilizer, in a group of monkeys, and we decided to test this compound too. Most tranquilizers are sedatives. If you give them to a monkey, they'll make him calm, but they'll also make him drowsy. You can see his head nod and his evelids droop. But the technicians who were taking care of the monkeys-the guys who had been feeding and working with them for yearsnoticed that the animals taking this compound didn't seem drowsy at all. They were calm and peaceful, ves. but also inquisitive and alert.

"Fortunately, the technicians reported it to their supervisors, who took videotapes. The tapes were so impressive that we went back into the clinic with the compound to see if it would have an effect on anxiety, and, it turned out to be a major discovery—BuSpar."

BuSpar (buspirone) proved to be the first in a new class of anti-anxiety agents — effective in treating anxiety, but without the abuse potential and other harmful side effects of the widely used benzodiazepines.

Now it appears in clinical



"I would like to tell you that all our drugs are planned, predicted and well-thought-out in advance. Thank God, it is not so. There is still serendipity in drug discovery."



Dr. Mary Malley, a researcher at the company's Princeton facility, uses x-ray diffraction techniques to better understand the components of potential therapeutic agents.

trials that *BuSpar* may be useful in treating more than anxiety; it seems to help patients suffering from certain severe forms of depression. That is significant because the patient who suffers from anxiety usually has a component of depression too, and the depressed patient often has some anxiety. So a compound that can attack both becomes attractive.

This multiplicity of effects comes as no surprise to scientists who do research on the central nervous system since they must be particularly alert for serendipity. The brain's chemistry is so complex that only its broad outlines are known. Any drug that has one effect is perfectly likely to have other effects too.

"When people talk about scientific pioneering," says Dr. Frank D. Yocca, a Brooklyn-born senior research scientist at Wallingford, "they usually think of the excitement of space exploration and discoveries like those made by the Voyager probe. But when I think of the neurosciences now, and the new knowledge that is gained on a daily basis, it is equally exciting to explore the human brain. It's like going to the moon first, then Mars, then beyond the solar system; it's the logical next step that has to be taken. And the new drugs we dis-





Dr. Richard Hutchings, a chemist and section manager for new categories at Drackett, gets great pleasure out of creating new products not yet in the marketplace. "I really tell in love with Drackett," he says, "because mebody gave me any griof strut working on something that was not on the books."

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cover are tools—the tools that allow us to dissect the brain on a molecular basis in order to understand how it works. That's why I am so enamored with drug discovery. I could never do without it. Drug discovery is addicting, almost."



mong workers on the banana and rubber plantations in

southwestern Brazil, no snake is more feared than the Bothrops jararaca, or Brazilian pit viper. The jararaca is a reclusive but irritable cousin of the North American diamond-backed rattler. If disturbed, it strikes, injecting poisonous venom through inch-long fangs. Victims suffer blinding pain followed by a near instantaneous drop in blood pressure that leaves them dazed. bleeding and -- without treatment-very likely dving.

The story of Capoten (captopril) begins, in a sense, with the jararaca - or at least with its venom, which provided the first important clue for the drug's creation. In the late 1960s, a Brazilian scientist working in London was investigating why the venom caused such a catastrophic plunge in a victim's blood pressure. One reason, he found, was that something in the venom seems to inhibit an enzyme called angiotensin-converting enzyme, or ACE, that plays a key role in raising blood pressure. By blocking this enzyme, the jararaca ensures that its victims cannot recover their normal blood pressure for as long as the venom remains active.

News of the discovery

"Capoten has entered pharmaceutical industry legend as the first drug created purely by a process known as rational design."



Dr. Ravi Shetty, an advanced technologies metallurgist at Zimmer, develops and improves materials for use in Zimmer implants. Here he is shown near a furnace where the metals are heated before being shaped, and (at right) examining metal chips after fabrication.

stirred keen interest when it reached the Squibb Institute for Medical Research. The Institute was then organizing a cardiovascular program, and two young chemists-Drs. David W. Cushman and Miguel A. Ondettiwere assigned to investigate this provocative finding on the chance that it might lead to new blood pressure drugs. "We bought large quantities of snake venom from Brazil." recalls Dr. Ondetti. who was born and educated in neighboring Argentina, "and isolated several of the compounds in it that could inhibit ACE. Then we picked the best one and synthesized enough of it to do some preliminary trials in patients."

The trial showed that the snake venom ingredient could indeed inhibit ACE and, by so doing, lower some patients' high blood pressure. But the venom compound had a serious flaw: it couldn't be taken in pill form, only by injection. That was out of the question for a chronic condition like high blood pressure, where patients may need medication throughout their lives.

The promising lead seemed to be petering out and, by 1973, the Squibb Institute began to lose interest. Dr. Ondetti was transferred to antibiotics; Dr. Cushman began working on prostaglandins. But, says Dr. Zola P. Horovitz, then director of pharmacology research at the Squibb Institute and a member of the *Capoten* team, now vice president, Bristol-Myers Squibb Licensing, "We all continued to believe in what we were doing, even when others were less confident we'd eventually succeed."

One day, however, Dr. Cushman happened to come across an article that had been published over a year earlier by two university scientists. While they were not working with ACE, they were working with another enzyme similar to it and had found a potent inhibitor of this enzyme.

Drs. Cushman and Ondetti immediately recognized an important clue in that paper. "We copied the structure of their inhibitor but modified it to fit our ideas of what ACE looked like." Dr. Cushman recalls. "Then we deduced something that the other scientists had not-that their inhibitor worked so well because it was binding to a zinc ion in their enzyme. Since ACE contains a zinc ion too, we further modified our molecule to interact more effectively with zinc - and got a very potent ACE inhibitor that could be taken by mouth."

The result was *Capoten*, the first commercial ACE inhibitor and now one of the world's largest selling drugs. Originally approved only for use in patients with high blood pressure, ACE inhibitors today are used to treat congestive heart failure. Moreover, *Capoten* may improve survival and prevent heart failure after a heart attack and may delay or prevent kidney failure in

Dr. Carol Maskin, head of chinic al cardincase ullor research at the Southb institute, Kinds running relaxing As a result of het work as a cardiologist, she has become increasingly interested in exercise and has learned to train more afficiently. patients with diabetes.

"What is fascinating," says Dr. Carol S. Maskin, head of clinical cardiovascular research at the Squibb Institute, "is the cascade of knowledge that has emanated from investigation of this novel compound. Having an ACE-inhibiting drug has allowed us to explore the pathophysiology of these diseases which, in turn, has led to new therapeutic approaches."

For members of the original ACE inhibitor team, *Capoten*'s success has been a significant career milestone. "It's rare for scientists to get to work on a drug of the magnitude of *Capoten* in the course of a lifetime," Dr. Horovitz says. "It's been a very special experience for all of us."

But such successes are far from ensured in the discoverv process. "When I first started out, and decided to become a scientist," Dr. Horovitz adds, "I thought I'd accomplish great things in a year or two. What I quickly learned was that breakthroughs come very slowly, if at all, and with great patience. Often this means postponing the reinforcement you're seeking for what could be years and years. This can be a difficult lesson to learn.

"And there are bound to be setbacks. But if you keep your eye on the larger goal, it will keep you moving forward. You keep remembering that the small pieces of data coming in are valuable data that could lead to more important findings. Sometimes it'll be positive and other times negative. But still, you're the one who's made it have and you're contributing in a small way to our scientific knowledge."

Unlike many drugs. which are discovered by more-or-less random screening, Capoten was deliberately sculpted to attack an enzyme responsible for controlling blood pressure. "We didn't do it by trial and error," affirms Dr. Cushman. "We hypothesized on paper structural changes that might produce improvements; and a relatively small number of such logical sequential changes led rather quickly to Capoten." In fact, Capoten has entered pharmaceutical industry legend as the first drug created purely by a process known as rational

design.

"I always hated the word 'rational,' " says Dr. Ondetti, now senior vice president for cardiovascular research at the Squibb Institute. "because I don't think that the traditional procedures were irrational. The real difference is that *Capoten* marked a turning point toward the concept that you can develop drugs by looking at the specific mechanisms of a disease. So, for example, we did not set out just to find a blood pressure drug. We were looking to inhibit this specific enzyme. And if you succeed in inhibiting the enzyme, you learn more about the diseaseeven if your drug is not a

"If you are a chemist, you're interested in the shapes of molecules. And if you're interested in shapes, you will be interested in sculpture."



(At left) Dr. Thomas Dabrah, a research scientist in anti-tumor chemistry at Wallingford, uses gel permeation chromatographic columns to separate the components of potential anti-cancer agents. (At right) Bruce L. Kuczynski, an assistant scientific investigator at Squibb Diagnostics, screens a nete imaging agent using a special camera system.

commercial success," Dr. Ondetti savs.

There was also, the two scientists say, an element of luck in their discovery. Dr. Cushman, an avid golfer, puts it this way: "I am a fairly average golfer, usually shooting between 90 and 100-though I can break 90 occasionally-but I have twice scored a hole-in-one. The first time was in 1972 and the second was in 1984. That takes a little luck. But you are much more likely to score a hole-in-one if you have mastered certain basic techniques. That is, a person who can't hit the ball straight, the right distance and in the air is rarely going to make a hole-in-one. So vou have to do vour homework before you can get a couple of aces. It's the same with science. Luck always enters into the picture. But if you don't have the right way of looking at the problem, you are not going to be able to take advantage of what nature offers you."

These days, both men still keep a hand in laboratory work. And they stay busy away from work, Dr. Cushman with his golf and a collection of some 3,000 vintage 1930s and 1940s comic books, and Dr. Ondetti with sculpture, an avocation he has pursued over the last two decades. Most of his sculptures are human figures.

But Dr. Ondetti exhibits his work only reluctantly. "I am sensitive because I am very serious about it," he explains. "I don't want people saying, 'Well, for a scientist, he's a pretty good sculptor.' You should either be judged as a scientist or as an artist, not both. The occupations are distinct, and I don't want to be a dilettante in either one."

Still, in a subtle way, the art feeds his science and vice versa. "If you are a chemist," he says, "you're interested in the shapes of molecules. And if you're interested in shapes, you will be interested in sculpture."

oday, the tool of choice for "molecular sculptors" is the computer —whose picture-perfect graphics allow scientists to "see" the molecules they study.

"With small molecules," explains Dr. Jiri Novotny, director of macromolecular modeling at the Squibb Institute, "it is relatively easy to understand their structure and function just by drawing them on paper or building plastic models of them. But large biological molecules like enzymes and receptors have thousands of atoms. Just to catalog their positions in space requires a computer and high-resolution graphics. But also, the computer helps us to get deeper into the structure and understand what's important for the particular functional properties of the molecule."

Dr. Novotny did not always have sophisticated computers at his beck and call. "I was born in Czechoslovakia but escaped in 1979," he recalls. "I had been invited to go for a month's visit to Oxford and I just stayed in England. In Prague, they didn't have any larger computers, just desktop Hewlett Packards, bought at great expense. "I was a chemistry buff. By the time I was 12 or 13, I was already one of those boys who made explosives and poisons and smelly stuff."



Clairol researchers discuss ways to better replicate the body's own ability to add pigment to hair naturally. At right, a tensile hair strength test is used to determine the effects of new hair treatments on hair strength and resilience.

"It was hopeless there, like being in a graveyard. It was a terribly oppressive atmosphere. You had no personal or professional prospects. It was hard to be 30 years old and see that you cannot do anything with your life."

Dr. Novotny's interest in science came carly. "I was a chemistry buff," he says. "By the time I was 12 or 13, I was already one of those boys who made explosives and poisons and smelly stuff. My father and mother couldn't figure out where this interest came from, but they encouraged it. They were both actors and didn't want me to have anything to do with the theater because they said having a theater career meant putting up with too many intrigues.

"It was this background that led me into chemistry. But my interest in computers did not start until I had been working for years. It became clear to me that just by doing wet chemistry we might never answer certain questions about how proteins work and what influences the biological properties of molecules. Besides, I wanted to see the molecules - what they would look like. And that is only possible on a computer.'

You get a sense of the potential of the computer's use when you watch a computer-designed molecule swim onto a screen at the Computer-Assisted Drug Design laboratory in Wallingford. The structure resembles a purple, iridescent ribbon, coiled back and forth on itself like a Gordian knot, hanging suspended in black space. It is the "backbone" of an AIDS virus enzyme.

While Dr. Novotny and his colleagues look at their computer screens to unlock some of nature's more intricate mysteries, Dr. Steven Sheriff, principal scientist, macromolecular crystallography at the Squibb Institute, is looking somewhere else – deep inside the structure of the molecules themselves.

"Someone designing a molecule on a computer starts with the structure of an already determined protein. Or they predict the structure we haven't yet observed," Dr. Sheriff says. "My job is to determine the three-dimensional structure of proteins that are not yet known."

Dr. Sheriff's group isolates and purifies a protein—a macromolecule—crystallizes it, and shines a beam of x-rays on the crystals. Then, using a variety of other sophisticated techniques, the researchers begin to build a model of the protein.

"Humans are visual animals," he says, "so threedimensional models are powerful tools in helping us understand the body's proteins and design drugs to interact with or inhibit those proteins. It makes available so much information about the functions and structures of molecules. The day-to-day work may be painstaking and slow. But if you keep in mind the big picture, it's exciting.



"I consider myself a chemist interested in the structure of matter — how it goes together. Living systems are inherently fascinating how each system comes together and how it keeps on working. That's what got me interested in science in the first place. And I still have a sense of wonder about it."

Even as they apply these tools to problems at the molecular level, Bristol-Myers Squibb scientists also are working to improve their use for the diagnosis of disease. Magnetic resonance imaging (MRI), which employs perturbations of a magnetic field to make a cross sectional image of the body, provides an excellent example. "Wnen MRI first came out a decade ago." says William C. Eckelman, vice president for diagnostics research and development at the Squibb Institute, "many people thought that this technique was so good that it wouldn't need contrast media like those used to enhance pictures made by x-rays and CT scanners. But as time has gone on, physicians are finding that contrast agents improve their ability to detect disease.

"Suppose a patient has a brain tumor but the tumor is so small or so similar to surrounding tissue that an MRI scan can't pick it up. Often, such a tumor will break the barrier that keeps substances in the blood from reaching the brain. So if you inject our paramagnetic contrast agent into the blood vessels, it will leak out at the site of the damage and you will be able to see the tumor clearly on the MRI. It's analogous to the use of iodinated contrast media with CT scans."

High-technology imaging is also important as a means of quality control in sensitive medical manufacturing. At the Zimmer Research Laboratories in Warsaw, Indiana, for instance, scientists are experimenting with several new techniques to verify the integrity of artificial joints and bones. One such project focuses on newer implants that are made from composites of plastic and fiber rather than from traditional metals.

"Composites have the potential for making wonderful implants because you can fashion them to match almost exactly the strength and tensile properties of the bone you are replacing," says Michael E. Hawkins, a chemist and group manager at Zimmer. "But one drawback is that a composite that looks pure as the driven snow can have a hidden flaw that reduces its performance and we are developing nondestructive tests to spot this."

One test combines ultrahigh-frequency sound waves with holography, the laser-based photographic technique that produces seemingly three-dimensional images. "We take an implant," says Mr. Hawkins, "place it in the laser beam and make a hologram of it. Then we excite the part with ultrasound and make

"These little critters can make anything. You give them soybean grits, starch, hydrolyzed yeast, water and air, and they make you antibiotics."



Dermatological researchers in Buffalo seek a better understanding of the basic mechanisms of action of the skin, the largest organ of the body.

another hologram. When you lay the second hologram over the first one, you can tell whether the pa. (is well bonded or not. If it isn't bonded, the ultrasound will cause it to vibrate as two distinct units. You can see that when you compare the two holograms."

He traces his own fascination with science to the proverbial great science teacher, and can even recall a high school science experiment that was conceptually very similar to the hologram test. "The teacher's name was Lowell Hardwick." he says. "He was teaching physics and math in New Palestine, Indiana, I can recall him showing us one day how to measure the gravitational attraction of two objects by using a swinging pendulum and a laser. That really impressed me-that you could use light to make a measurement that fine. I still keep in touch with Lowell and he's pretty pleased that I've gone into the line of work I do."



nyone who has ever turned over a spadeful of moist

earth knows the smell. It is the rich, pungent aroma of fertile soil; a little sour, maybe, but also a little sweet; not the rank, acrid stench of decomposition, but the gentler, organic fragrance of the greenhouse, the garden and the freshly plowed field.

Those familiar with the aroma in other settings may be surprised at first to find it coming from a plastic dish in a pharmaceutical lab. But the smell is welcome. In fact,

To protect from premature aging and skin cancer, scientists in the dermatology group seek new answers to the photo-blocking abilities of new agents when used in the water.

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Dr. Shiu-Lok Mu, director for virus research at Oncogen in Swattle, leads a team there working to develop an Ali S vaccine.

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"Once, I left a coffee cup on my desk over the weekend and came back and found a fungus growing in it. I had it screened. Unfortunately it only produced a known antibiotic."



Bristol-Myers Products vesearchers seek new, more effective coatings for their tablet products. Pictured from left are Mahesh Patell, Dr. Thomas Tencza and Gretchen Golikov.

it is one of the clues that scientists use to guide them in their search for new drugs.

"That smell is from actinomycetes, a type of bacteria that lives in the ground," explains Dr. Koji Tomita, senior research fellow at the Bristol-Myers Research Institute in Tokyo. "They are the most common type of microorganisms in the soil, and they are also the source of many important drugs, including the antibiotic streptomycin and the anti-cancer drug bleomycin."

"There's a limit to how complex a chemist can make a molecule and still synthesize it economically," says Dr. Sean O'Connor, the Irish-born head of screening and biochemical research at Wallingford and a liaison to the Institute in Tokyo. "But these little critters can make anything. You give them soybean grits, starch, hydrolyzed yeast, water and air, and they make you antibiotics. Once, I left a coffee cup on my desk over the weekend and came back and found a fungus growing in it. I had it screened. Unfortunately, it only produced a known antibiotic."

"If you are looking for actinomycetes, the smell is a good indicator," adds Dr. Tamotsu Furumai, associate d' "or of the fermentation research department. "It is different from the smell of fungi, and also from that of other bacteria. Whenever I want to collect a soil sample, I pick it up and smell it first. Then, if I feel it has some special aroma, I put it in the bag."

They keep only those with a novel or unusual scent for good reason. "Thirty years ago, most of the compounds that you could isolate from soil microorganisms were new," explains Dr. Toshikazu Oki, president of the Bristol-Myers Research Institute in Tokvo, "Today, the vast majority are compounds that we already know. So if you want a new and unique drug, you have to find a new and unique microorganism first."

"That is why we collect soil samples from all over the world," adds Dr. Oki. "And we have contracts with people living in South America, the Philippines and India to send us samples as well. It is a job that only experience and training can teach. Computers and automation do not help."

Like wine connoisseurs who can tell a vintage by its bouquet, Drs. Tomita and Furumai sift patiently through their microscopic soil organisms looking for interesting olfactory signatures. Over the years, they have come to know many of these one-celled creatures as old friends. "We can often recognize them by the shape of a colony and by delicate differences in morphology or color," says Dr. Furumai. holding under his nose a Petri dish filled with dozens of fuzzy, earthen-colored growths. "For example, this one"-he indicates a dot the width of a pencil lead-"seems to be Streptomyces

griseus, the very famous producer of streptomycin. How do you feel, Dr. Tomita?"

Dr. Tomita studies the spot. "Yes," he says finally.

"So," says Dr. Furumai, "our opinion is the same. Usually, when we talk, we are saying, 'How do you feel about this colony? And this one? And this one?' After discussion, we'll pick the colonies that seem to be new or different." Each week, they select some 400 colonies to go into fermentation flasks filled with liquid nutrients. The flasks are rocked back and forth on a so-called "shaker table" in a warm room while the bugs divide and multiply, gradually turning the fluid cloudy

and - sometime red, brown, yellow or purple.

After several days, the flask is drained and the liquid filtered to remove the microorganisms themselves. Then scientists test the fluid to see whether it includes anything of medicinal interest.

Dr. O'Connor believes that whatever the successes or failures he and his colleagues have, there is always a certain magic. "Pharmaceutical research is the happiest of all situations," he says. "It's the glory of revealing God's creation. When you get over that first flush and see that the more you know, the more you know how little you know, you realize how many truly inter-

"Good science teachers are very hard to find. They should be paid a million dollars, more than great athletes — and I'm a sports fanatic."



Dr. Ron Mattson, a central nervous system chemist, says that some of the same characteristics needed for success in the laboratory – for example, careful attention to detail – are useful in his hobby, tying flics.

esting things there are to find out there in the world. All you have to do is turn over the right rocks."

In their quarter century of operation, the company's scientists in Japan have proved themselves very adept at spotting novelty and isolating important drugsincluding, recently, the anticancer compounds, esperamicin and dynemicin, and a new antifungal, pradimicin. Dr. Hiroshi Kawaguchi, who recently retired as president of the Institute, attributes their success in part to disciplines inherent in Japanese culture: "Japanese scientists are very serious. They know the value of cooperation, and this is very important in fermentation screening."

But he identifies another quality that is also important-one that all good scientists share - persistence, the determination to pursue a project to its end. In modern colloquial Japanese, this quality is called "Gattsu"a word that is derived from, and pronounced like, the English word 'guts.' "Gattsu means stubbornness or fighting spirit," says Dr. Kawaguchi. "And it is a very popular expression in Japan-there was even a boxer nicknamed Gattsu Ishimatsu. I think gattsu is also important in fermentation screening, because you have to be very patient and persistent."

But do they ever find it discouraging to have to sift through 10,000 compounds to find one that works? "Not at all," says senior research scientist Dr. Yosuke Sawada, with classic gattsu, "because we only need one good one."

Scientists, like this group of central nervous system researchers, often find that sharing ideas can lead to new creative approaches to solving problems.

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Dr. Duncan Taylor says his interest in science came as the result of two role models - his father, who was a bacteriologist - and an eighth grade teacher. Yoday he is neeking new clues to understanding the aution of central neryous system drugs. 10

ersistence of another sort paid off in one of the newest products from Clairol, the leading maker of haircolorings. "For as long as I've been in the cosn etics industry," says Dr. 'ohn F. Corbett, Clairol's view, president for technology, "people have wanted to create products based on compounds that are colorless in the bottle but take on color gradually when they're exposed to air. They're called auto-oxidative dves. The problem was that you could not get them to assume the full range of blond and red hues that you would need for a woman's haircoloring product. But then we realized that this drawback might be an asset for men, who are more conservative about what colors they will choose for their hair.

"Historically, this market has been dominated by gradually-acting products whose basic chemistry hasn't changed much since the days of Julius Caesar," says Dr. Corbett. "The Romans used to dip a lead comb in vinegar and then run it through their hair. The vinegar converted the lead to a colorless, watersoluble salt which stuck to the hair and then was gradually converted into a dark, insoluble dve. That's basically how most gradually-acting products still work today."

Why hasn't the technology of men's haircolorings advanced more in 2,000 years? Dr. Corbett says men themselves are partly to blame. "Men won't take the time to use a conventional hair dye, since you have to "Sometimes a project becomes so much a part of your life that it is like a child. And if a project dies, it is like a part of you died."



Gil Belofsky uses a Buchi evaporator in the Wallingford research facility to concentrate new anti-cancer drug compounds.

mix two ingredients together and then leave them on the hair for 20 minutes," he says. "They're too accustomed to convenience. Can you see a man spending 25 or 30 minutes on himself in the morning, doing his eyes and his hair and his nails? In many other species, it is the male that is the more colorful sex. Not in human beings."

Clairol's new product, *Option*—introduced last July—represents a step forward not only in technology but also in adaptation to customer idiosyncrasies.

"There are actually two products, one for instant coloring, the other for gradual coloring," says Dr. Corbett. "For *Option* Gradual, we used auto-oxidative dyes that change hue gradually to shades of light, medium or dark brown. Besides being able to control the color, which you can't do with lead salts, you get the change more quickly—in a week, as compared to several months. So they are more convenient.

"For Option Instant, we used an internal mix system developed in Germany. It's a container with two compartments that holds the two elements of a conventional haircolor, separated by a membrane. You simply push a button in the bottom to cut the membrane, shake and then apply." speramicin is my baby," says Dr. Salvatore Forenza, the Italian-born project leader for the promising anti-cancer drug. "Sometimes, a project becomes so much a part of your life that it is like a child. And if a project dies, it is like a part of you died. I have two boys, aged 8 and 11. Between them and esperamicin, I can't say which have been the toughest to manage."

The compound was isolated by scientists at the Bristol-Myers Research Institute in Tokyo from a microorganism found in the banks of the Rio de la Plata in Argentina at a place called Porto Esperanza. "Since esperanza means 'hope' in Spanish, and since we have great hopes for the drug, we named it esperamicin," says Dr. Forenza. "On a gramfor-gram basis, it is possibly the most potent anti-tumor substance known."

The enthusiasm that Dr. Forenza brings to his professional life spills into his private life too, where he coaches a boys' soccer team. He also spends a good deal of time trying to show youngsters that a career in science can be exciting. "For children," he says, "scientists are weird people. They see mad scientists in movies and they think we must really be flying over the cuckoo's nest. So any time a science teacher asks dads to talk to the class about what they do, I volunteer. I call my talk, 'The Secret Life of Coach Forenza,' since most of the kids know me only in shorts and soccer cleats. I

"When I was a young student, I thought that with a few years' work the cancer problem might be solved. But cancer is a very elusive disease."



Dr. Terrence Doyle, director of anti-tumor chemistry and microbiology in Wallingford (at right), discusses new anti-cancer agents with a colleague, Dr. Salvatore Forenza. Dr. Doyle describes himself as "very goal-oriented." Building – everything from cabinets to storage units – helps him fulfill goals at his home in Connecticut.

bring in some microbes and tell the kids how penicillin is made; that's something they can relate to.

"We hear every day from friends in academia that they can't get enough students trained it: science. Good science teachers are very hard to find. They should be paid a million dollars, more than great athletes — and I'm a sports fanatic."

Unfortunately, for Dr. Forenza and the others working on esperamicin, they will have to find another name for the compound. "Esperamicin is just its so-called trivial name — the name you give something when you publish it in the chemical literature," explains Dr. Terrence W. Doyle, director of anti-tumor chemistry and microbiology at Wallingford. "Now it needs a generic name to identify it as a drug, and a trade name for marketing purposes. We applied to the United States Adopted Names Council to use 'esperamicin' as the generic name. But it was turned down because it was too close to an existing compound."

Since the trivial name is often superseded by the time a compound reaches market, it is one area where the scientists allow themselves some fun. "We had an antibiotic complex a few years ago that was discovered by Dr. Ted Nettleton, an opera buff," recalls Dr. Doyle. "He



Dr. Douglas Kelsey, a pediatrician at Mead Johnson Worldwide Nutritionals, heads clinical studies on finding new ways to protect infants from infectious diseases through nutritional supplementation. Here he visits a study subject, a young baby, in Charieston, South Carolina.

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decided to call it bohemic acid, after Puccini's La Bohème. So then we had a string of compounds that went into the literature with names from the libretto, including rodolfomycin. mimimvcin, alcindoromyein, collinemycin and schaunardamycin. Rodolfomycin turned out to have an unusual sugar in it that was new to science, and - since Rodolfo is something of a clown, and since many sugars end with the letters 'ose' - we managed to get it into the Journal of the American Chemical Society under the trivial name 'rednose.' "

As for esperamicin, the drug was appropriately named even if it does have to be relabeled for legal purposes. In cancer research, as in all branches of medical science, scientists sustain their spirit partly through the stubborn hope and belief that they can conquer the disease they are fighting.



hen I was a young student, I thought that

with a few years' work the cancer problem might be solved," observes Dr. Karl Erik Hellström of Oncogen in Seattle. "But cancer is a very elusive disease. It's going to take a series of developments in many areas-drugs, drug conjugates, antibodies, radiolabeled antibodies. lymphokines, vaccines, growth inhibitors and, of course, the traditional surgery, chemotherapy and radiation-to prevail."

As the future of cancer treatment takes shape, one important element will be

the body's own immune system-and this is where Dr. Hellström and his wife, Dr. Ingegerd Hellström, concentrate their efforts. Using sophisticated biotechnology. the Hellströms have created monoclonal antibodies that seem to attack tumor cells in preference to normal cells. One of them, designated L6 because it was the sixth relatively specific antibody to be isolated against a lung cancer, has shown very promising early clinical resultsincluding one case in which a woman's breast tumor disappeared completely. "This was in one of three patients treated with the highest dose of the L6 antibody. If this were to happen even in only a few more cases," says Ingegerd, "it would still be

fabulous because these are patients for whom all other therapies have failed." The Hellströms are now expanding the studies to more patients and are exploring why an antibody such as L6 can sometimes induce tumor regression.

The notion of harnessing the immune system to combat cancer has fascinated the Hellströms since they met three decades ago as students at the Karolinska Institute in Stockholm. "I was a co-author on one of the first papers that proved that there were tumor-specific antigens," says Karl Erik. "And I," adds Ingegerd, "was involved, with my brother, in experiments that demonstrated for the first time that you could immu-

"You can only write papers for so long before you become anxious to know whether your ideas will work in man."



Greg Goggins uses in-vitro baths in his laboratory in Wallingford to determine the activity of new therapeutic agents on specific parts of heart muscle.

nize mice against virusinduced tumors."

Ingegerd's fascination with medicine dates back to childhood. "I had always wanted to be a doctor since I was a little girl, but my family was not wealthy, so I had to put myself through medical school. That was considered a little unusual for a girl from a small Swedish town in those days, but Sweden was ahead of the United States; even in those days, 20 or 25 percent of my classmates were women."

After continuing their work at the University of Washington and the Fred Hutchinson Cancer Research Center in Seattle, the Hellströms moved to Oncogen in 1983 because, says Karl Erik, "You can only write papers for so long before you become anxious to know whether your ideas will work in man."

But immunology is not the only passion the Hellströms retain from their student days. "We both worked under Drs. Eva and George Klein, a husband-and-wife team at the Karolinska," says Karl Erik, "and when we saw that they were able to work together and still stay married, we thought that it could work for us too."

Indeed, listening to the Hellströms talk – tripping over one another to finish each other's sentences – it is very difficult to imagine them apart. So what do they chat about when they go home? "Too much about the work, I guess," says Karl Erik.

"You bring home the things you are thinking about in the lab," says Ingegerd. "But we have a


Dr. Don Harris, a research leader in pharmacoliagy in Princeton, specializing in hypertension research, was inspired to pursue a career in research by a college professor. He sees his work as an example for inner city youth. "I want them to see the possibilities a career in science can provide and I want to help them along the way."

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few other interests "

"We have a very nice house on Lake Washington," says Karl, "and two dogs..."

"...a German shepherd and a giant schnauzer..." says Ingegerd.

"...and a nice boat..." "... and a salt water aquarium, quite a big one..."

"... and three cars—a Honda, an open Porsche and a classical Mercedes Benz," finishes Karl Erik. "So we may not be typical, since the typical scientists are supposed only to like science and drive an old Volvo. But also, being married, we spend most of our time discussing work, so one needs other outlets."

Like the Hellströms. Dr. Mariano Barbacid got caught up early in his scientific pursuit - so early, in fact, that it took many of his colleagues by surprise. The year was 1981. And three laboratories, including Dr. Barbacid's, made a rapid succession of discoveries that confirmed the role of mutant genes, called oncogenes, in human cancer. Miraculously, the three groups of scientists made this important discovery independently but almost simultaneously. But although the other two labs were run by scientists who were already fairly well established, Dr. Barbacidthen only 32 years old -- was still relatively unknown.

"I can remember going to a scientific meeting and presenting my data," says Dr. Barbacid, then at the National Institutes of Health, "and having everybody think I was somebody else's post-doc. They couldn't imagine that my lab would be doing these experi"The fun is to use good science to make things that help people. That is what we are all about."



(At left) Dr. Michael Pucci, a senior scientist in anti-infective microbiology, studies an autoradiograph that shows the sequence of DNA in a gene to study how a change in DNA would affect the activity of an anti-infective compound under development. (At right) Dr. Richard White, vice president, infectious disease research at Wallingford, discusses the involvement of tumor necrosis factor in septic shock with a colleague.

ments on our own."

By the end of that year, of course, Dr. Barbacid's name was widely known. Now, as director of the department of molecular biology at the Squibb Institute, he believes that the time may be right to attack oncogenes using classic drug discovery methods. "Suppose we could find drugs to inhibit three or four of the most common oncogenes," he says. "You might not be able to cure cancer completely, but you could perhaps prevent it or at least delay its fatal outcome."

But Dr. Barbacid argues that, for this approach to work, scientists must continue to search for new cancer-related genes (some two dozen have been identified to date in man) and deduce their function in the cell. "It would be illogical to stop doing this kind of basic research now," he says.

"That would be like going prospecting and finding your first little piece of gold and deciding, 'Okay, that's enough, let's go home.'

"You could say that, in cancer research, we are putting together a complex puzzle but that we still only have two dozen of the pieces on the table. So if this is a 200-piece puzzle, we can't fit it together yet. But we keep trying." r. Shiu-Lok Hu, Oncogen's director for virus research, is

leading a team working to develop a vaccine against the AIDS virus. Born and raised in Hong Kong, Dr. Hu arrived in this country 23 years ago as a freshman at the University of California at Berkeley. Today, he has lived here so long that there is hardly a trace of an accent when he speaks animatedly of his work.

"Our objective is to fashion substances that would stimulate an immune response to the AIDS virus," he explains. "Consider that most of the people who test positive for the AIDS virus are walking around apparently healthy. So there must be some mechanism keeping the virus in check. If we could take that eight-to-tenyear latent period of the AIDS virus, and make it three or four times longer, it would completely change the nature of the disease."

In pursuit of this end, Dr. Hu and his colleagues have employed genetic engineering to create an artificial AIDS virus. This impostor includes all of the structural features of the natural virus but completely lacks the genetic material that makes it infective. Dr. Hu pulls some photos from a pile on his desk: "Here is a picture of the AIDS virus budding out from an infected cell. And here is a picture of our particles budding." The two images are virtually indistinguishable. "Suffice it to say that we can make noninfectious particles that are so much like the native virus that the immune system reacts to them exactly as it would to the AIDS virus. So this is very exciting as a potential vaccine."

At first, says Dr. Hu, such a vaccine would be given to patients who already have AIDS. "It would be like the rabies vaccine, which is also a post-exposure vaccine," he says. "What it would boil down to would be a race between the infecting agent and the immune system, and you would hope that by stimulating the immune system vou could keep the virus down." If successful, the vaccine might eventually be given to uninfected people to keep them from getting AIDS in the first place.

"I call them decoy particles," adds Oncogen's Dr. Todaro, "because of that old joke about 'What looks like a duck, walks like a duck and quacks like a duck?" The answer is, 'It's either a duck or a darn good decoy.' And that's what this is, a darn good decoy."

The corridors of Oncogen have an informal, almost academic atmosphere. 'I encourage that enviror ment,'' says Dr. Todare, "because it fosters discovery. It encourages people to go to the frontier to find something that is new. We're trying to hit home runs here. We're not going from second to third. And when you swing for the fences, you're going to strike out more. All the famous home run hitters did.

"This is close to a cliché, but if you're unwilling to be wrong, there's an awfully good chance that you are not going to be very right either. And this is the mentality that characterizes almost any cre-



ative process, whether it be in the arts, music, writing or pharmaceutical research."

Not that you can construct an entire company out of home run hitters. "The mentality that is appropriate for discovery is not necessarily appropriate for the focused development of a drug, where everything should concentrate on getting it rapidly through clinical trials," says Dr. Todaro. "It takes two very different personalities. And we have some of each." Itimately, what sparks the scientific mind may be the quest for the new. Most scientists take great satisfaction in the excitement of discovery, the feeling of accomplishment that comes with finally understanding and using new knowledge to create something meaningful—in any field.

"The good scientist has to blaze a trail," Dr. Comer adds. "And he may have to burn out sor" chains in his chainsaw doing it."

Yet, a scientist at Bristol-Myers Squibb also has to

"We're trying to hit home runs here. We're not going from second to third. And when you swing for the fences, you're going to strike out more. All the famous home run hitters did."



(At left) Dr. Jack Gougoutas, a senior research fellow at the Squibb Institute, studies molecules, crystals and their properties using x-ray crystallography, an important technique in new drug design and formulations. (At right) Microorganisms, isolated in Tokyo from soil samples, are tested at the company's Wallingford research center in the search for novel therapeutic agents.

move his or her accomplishments beyond the theoretical. "You can fill the scientific literature with marvelous papers, but you have to remember that ultimately, we're trying to create new products," says Dr. Jerome Birnbaum, executive vice president for research. Bristol-Myers Pharmaceutical Research and Development Division. "The fun is to use gy ac science to make things that help people. That is what we are all about."

What makes discovery so exciting? "It's an emotional issue which is hard to describe," Dr. Haber observes. "You have to experience it. I've been lucky enough to have experienced it a few times in my career. When vou've been working extremely hard for a long time trying to get an answer, and suddenly you discover something that clarifies everything you didn't understand, it is the most incredible emotional feeling."

Creating the proper environment for that effort is vital. "It's my job to ensure that my people have fun," Dr. O'Connor explains. "That doesn't mean they have to be happy all the time. But they have to have fun. If they do, they will take delight in what they do, and it will carry them over the massive difficulties that pharmaceutical research always brings. I don't keep them happy by buying them drinks. I do it by getting them interested in projects ranging from the relatively pedestrian, where you have a good chance of success, to the mind-blowingly imaginative, where you don't have much chance to succeed. But when vou do succeed, look out!"



Bristol-Myers Squibb Company ALEADER IN A GLOBA

Dr. Michael Kozlowski, a senior research scientist in the antiinfectives group at Wallingford, uses a panel of ther plates to help test for activity of biological agents in screening new anti-cancer and anti-intective drups.



Distol-Myers Squibb Company is comprised of four core businesses — pharmaceuticals, consumer products, medical devices and nutritionals.

 It has the second largest pharmaceutical business in the world.

 It is a leader in 15 of 21 consumer categories in which it competes in the United States.

 It is a world leader in orthopaedic implants and ostomy products.

 It has the second largest infant formula business in the world.

► It fields a worldwide sales force of nearly 14,000, including one of the largest over-the-counter sales forces in the world and a pharmaceutical sales force of over 8,000.

It has 3,000 scientists, technicians and support personnel, devoted to pharmaceutical research and the discovery of innovative, breakthrough products.

Financially, it is one of the world's strongest companies — one of only thirteen Fortune 500 companies with a triple-A credit rating from both Moody's and Standard and Poor's.



A scientist checks for changes in gene expression after dissolving a potential central nervous system compound in a cell growth medium.



second largest cardiovascular business worldwide.



Pharmaceuticals

he global pharmaceutical market totals more than \$130 billion and is expected to grow through 1993 at a compound annual rate of nine percent in the U.S. and six percent in Europe and Japan.

Bristol-Myers Squibb is the leading anti-cancer drug company in the world, number two in cardiovascular drugs, number four in antibiotics, number three in decmatologicals, number two in North America in diagnostic imaging agents, and has a growing position in the central nervous system category.

The population of the industrialized world is getting older. Consequently, health care costs will continue to rise dramatically. While the U.S. spent about five percent of its gross national product on health care in 1960, it will spend nearly \$650 billion, or about 12 percent of the gross national product, in 1990a figure expected to rise to 15 percent by the turn of the century. In Japan, healthcare spending as a percentage of gross domestic product rose from three percent in 1960 to more than six percent in 1985. Similar trends are evident in other industrialized countries, including Germany, France, Canada and the United Kingdom.

These trends, among others, will put increased burdens on health care delivery systems and greater pressures than ever on health care costs. The pharmaceutical industry's share of the U.S. health care dollar has actually decreased sharply. going from 12.4 percent in 1965 to 6.8 percent in 1987. New pharmaceuticals, by reducing reliance on more expensive surgeries and hospitalizations, and by helping people lead more productive lives, have made a major contribution to efforts to control health care costs. Breakthrough, innovative pharmaceuticals will become even more essential in the vears ahead.

Cardiovasculars

orldwide, cardiovascular agents are the leading pharmaceutical category, with an estimated \$21.3 billion in sales in 1989. The market is expected to grow to \$28 billion in 1993, a growth rate of seven percent a year.

Hypertension affects some 60 million Americans and millions more throughout the world. It is an important contributing factor to heart disease, the leading cause of death in the United States and throughout the developed world.

The 1989 worldwide market for ACE (angiotensin-converting enzyme) inhibitors, the leading antihypertension therapy, is estimated at \$2.7 billion and is expected to reach \$5.3 billion in 1993, an annual growth rate of 18 percent.

Bristo.-Myers Source Company Global Leadership Positions -- Pharmaceuticals (Solected Markets -- 1988)

U.S.

- #1 Anti-Cancer Drugs
- #1 Medium & Narrow Spectrum
- 20
- #2 Diagnostic Imaging Agents
- #2 Ammoglycomides
- #2 Broad Spectrum
- #2 Oral Cephalosporins
- #2 Systemic Antifungals
- #2 Cardiovasculars

Canada

- #1 ACE Inhibitors
- #1 Anti-Cancer Dinaga
- #1 Dermatologicals
- #1 Cardinwasculars
- #7 Diagnostic lungung Agents #2 Cholesterol-Lowering Agents

Gormany

- #1 Oral Cephakosporins
- #2 Systemic Antifungals

Italy

- #2 ACE Inhibitors #2 Medium & Narrow Spectrum
- #2 Aminojelvcosides

France

- #1 ACE Inhibitors
- #1 Oral Cephalosporins
- #1 Systemic Antifungals
- #2 Medium & Narrow Spectrum
- #2 Broad Specieum Penicillins

U.R.

- #1 ACE Inhibuors
- #1 Tranquilizers
- #1 Cholesterol-Lowering Agents
- #1 Systemic Antifungals
- # / Neuroieptics

Spain

- #1 ACE Inhibitors
- #1 Oral Cephalosporins

Mexico

- #1 Broad Spectrum Pericillins
- #1 Oral Antibacterials
- #1 w.r Inhibuors
- #2 Oral Cephalosporina
- #2 Ammoglycosides

Australia

Taiwan

- #2 Medium & Narrow Spectrum
- #2 was Inhibitors

Philippines

- #1 Injectable Antibacterials
- #1 Amitiophycosides #2 Oral Antibacterials
- #2 Systemic Antifungals



Questran, sold as Quantalan in Germany, is a cholesteroliowering agent marketed around the world.

ACE inhibitors lower blood pressure by blocking conversion of the hormone angiotensin I into angiotensin II, a powerful constrictor of blood vessels.

Capoten (captopril) is the company's leading ACE inhibitor. Captopril is the third largest selling pharmaceutical in the world and one of only five drugs currently with a billion dollars or more in annual sales.

New clinical studies continue to demonstrate *Capoten*'s advantages over other anti-hypertension medications. In 1989, a study conducted at the University of Uppsala in Sweden concluded that in hypertensive patients, unlike diuretics, *Capoten* does not increase insulin resistance, a condition reflecting the body's inability to use glucose properly in the cells.

A 2,000-patient study, to be completed in 1991, is examining the beneficial effects *Capoten* may have in reducing mortality and preventing heart failure following a heart attack. *Capoten* also is being studied for use in the protection of renal function in diabetes.

Monopril (fosinopril), a second-generation ACE inhibitor, is awaiting FDA approval, and *Zoprace* (zofenopril), an ACE inhibitor that shows promise in the treatment of hypertension and congestive heart failure, is in Phase III clinicals.

Bristol-Myers Squibb also markets other anti-hypertensive agents, including *Corgard* (nadolol), a beta blocker, *Capozide* (captoprilhydrochlorothiazide), a

combination ACE inhibitor and diuretic, and Corzide (nadolol-bendroflumethiazide), a combination beta blocker and diuretic. Sotacor (sotalol), a beta blocker with unique antiarrhythmic qualities, is marketed outside the U.S. and has been submitted to FDA under the brand name Betapace for approval to market it as an antiarrhythmic. Currently in clinical trials are bucindolol. a beta adrenergic agent for use in treating congestive heart failure, and d-sotalol. an antiarrhythmic without beta blocking properties.

The worldwide market for cholesterol-lowering agents has grown at a rate of 27 percent annually over the past five years, from about \$520 million in 1984 to an estimated \$1.7 billion in 1989. It is expected to grow to over \$3.8 billion in 1993.

In the U.S., the National Heart, Lung and Blood Institute's Cholesterol Education Program Panel on Adult Treatment Guidelines has recognized Questran (cholestyramine) as a drug of first choice for cholesterolreducing therapy. The landmark 10-year Lipid Research Clinic's Coronary Primary Prevention Trial. conducted by the National Heart, Lung and Blood Institute, proved conclusively that lowering cholesterol with Questran helps prevent coronary heart disease.

During 1989, a new, more palatable form of Questran, flavored with aspartame and called Questran Light, was introduced in the United States and several markets in Europe. Also, the company has submitted an application to the FDA to market Questran tablets.

Bristol-Myers Squibb is awaiting regulatory approval of *Pravachol* (pravastatin) in



Corgard was the first onces-day beta blocker approved in the U.S. for the treatment of hypertension and angina pectoris. It is sold worldwide.

The Growing Aging Population: Percent 65 years of age and older



markets in Europe as well as in the U.S. and Canada. Regulatory approval was granted in Ireland and Iceland in 1989. *Pravachol* works by inhibiting HMG CoA reductase, a key enzyme in the synthesis of cholesterol. More than 4,000 patients are involved in ongoing clinical studies of *Pravachol* around the world.

Anti-Cancer

he market worldwide for anti-cancer therapies is expected to increase 20 percent annually from an estimated \$3.8 billion in 1989 to about \$8 billion in 1993. Bristol-Myers Squibb is the world leader in cancer chemotherapy.

Growth is expected to be fueled by expanded uses of existing drugs, better treatments of side effects of chemotherapy, the introduction of analogs of existing agents, and the introduction of new and even more effective anticancer agents.

The company currently markets the broadest line of chemotherapeutic agents in the world including *Platinol* (cisplatin), *Paraplatin* (carboplatin), *VePesid* (etoposide), *Megace* (megestrol acetate), *Blenoxane* (bleomycin), *BiCNU* (carmustine), *CeeNU* (lomustine), *Cytoxan* (cyclophosphamide), *Mutamycin* (mitomycin C), *Hex* (ifosfamide) and others.

Paraplatin — an analog, or chemical relative, of *Platinol* — received FDA approval in 1989 for treatment of ovarian cancer where other therapies have failed. First introduced in the United Kingdom in 1986, Paraplatin is as effective as Platinol in many tumors, but with fewer and less toxic side effects. It was introduced in Italy in 1989 and is now marketed throughout Europe. Its safety profile allows it to be administered to patients on an outpatient basis, an important benefit for patient comfort and helpful in reducing the overall cost of therapy.

Platinol, first approved in 1978 to treat ovarian and testicular cancer, is now also indicated for the treatment of advanced bladder cancer. In a number of countries in Europe, and in Japan, it is also approved for lung cancer.

VePesid, first approved in 1983 to treat testicular cancers that do not respond to other treatments, continues to be one of the world's fastest growing anti-cancer agents, primarily because of its approval in 1986 for use against small cell lung cancer, making it the first drug to be approved in the U.S. for lung cancer treatment in over a decade.

New Drug Applications are currently being prepared for submission to FDA, seeking approval to market *Vumon* (teniposide) for use in treating childhood acute leukemia, and anagrelide for use in inhibiting the excess production of platelets.

Oncogen, the company's biotechnology research subsidiary in Seattle, is working to develop monoclonal antibodies that could be used either alone as anti-tumor agents or by linking them to existing cytotoxic agents so

Bristol-Myers Squibb Company Pharmaceuticals Sales Force Size-1989



AEGAGE 1

Bristol-Myers

Squibb is the leading cancer

chemotherapy

company in

the world.

Paraplatin AO

Platino

50



VePesid, used to treat testicular and small cell lung cancers, is among the fastest growing anticancer agents in the world.



Meicelin, a third generation injectable cephalosporin antibiotic, has gained widespread acceptance among doctors and in hospitals in Japan since its introduction in 1987.



The Pharmaceutical Research Pipeline

It takes seven to 10 years to get a new pharmaceutical to market, at an average cost of \$125 million. After a compound is discovered to have specific therapeutic activity, it must undergo a series of rigorous tests both in the laboratory and in humans before it can be marketed. After laboratory studies confirm its potential for treating a particular disease state and demonstrate its relative safety, an Investigational New Drug application (IND) is submitted to the U.S. Food and Drug Administration (FDA). This preclinical development process takes one to two years. Next, the compound is tested in humans-in three phases. In Phase I, the pharmacological profile of the drug is studied in volunteers. Tests are done on safety. side effects, dosage levels and bioavailability. In Phase II, patients are sludied to determine the drug's effectiveness. Finally, in Phase III, a large patient population is studied in a number of centers. The entire clinical evaluation process can take up to six years. Afterwards, a company will submit a New Drug Application (NDA) seeking approval from the FDA to market the drug. That review process can take an additional two to three years. A similar testing and review process occurs outside the U.S. with health authorities in other countries. In certain cases, new therapeutic agents for life-threatening or incurable diseases. like many cancers, AIDS and Alzheimer's disease, can enter a program for expedited drug approval.



Phase III clinical trials in the U.S., Scotland and Australia.

Betapace (Sotacor)

Antiarrhythmic agent. NDA filed in the U.S. in 1988. Already marketed as Solacor outside the U.S.

Monopril

ACE inhibitor for hypertension. NDA filed in the U.S. in 1988. Foreign registrations filed in 1989.

Zoprace

ACE inhibitor for hypertension and congestive heart failure. Phase III clinical trials in the U.S. and Europe.

Vumon

Childhood acute leukemia. NDA preparation underway for U.S. registration and registration in the U.K. Widely marketed overseas for childhood acute leukemia.

Anagrelide

antibiotics.

Europe and Japan.

Orphan drug currently used to treat three rare blood diseases. Additional indication to inhibit excess production of platelets caused by cancer. NDA studies underway in the U.S.

including those resistant to other

Phase III clinical trials in the U.S.,

Bucindolol

Congestive heart failure.

Phase III clinical trials in the U.S. Capoten Additional indications for use

following a myocardial infarction and in diabetic nephropathy. Phase III clinical trials in the U.S. Ceranapril

Hypertension.

Phase III clinical trials in the U.S. d-sotalol Antiarrhythmic agent.

Phase II clinical trials in the U.S.

Taxol

and Europe.

Antitumor agent for treatment of previously treated ovarian cancer. Phase II clinical trials in the U.S. Chimeric L6 and Murine L6 Monoclonal Antibodies Antitumor agents to be used alone or in combination with cytotoxic drugs or radioisotopes.

Phase II clinical trials in the U.S. BMY 28175 Antitumor agent. Phase I clinical trials in the U.S. and Europe

Phase II clinical trials in the U.S.,

Canada and Europe.

Anti-AIDS vaccine.

HIVAC-le

SQ 30.741

Thromboxane receptor antagonist for prevention of damage to heart muscle after heart attack Phase I clinical trials in the U.S.

BMY 22089

Lipid-lowering agent (HMG CoA reductase inhibitor). Phase I clinical trials in the U.S. Belfosdil Calcium channel blocker to

prevent myocardial or cerebral ischemia Phase I clinical trials in the U.S.

Elsamitrucin

Antitumor agent. Phase I clinical trials in the U.S. and Europe.

BMY 35047 Cancer vaccine. Phase I clinical trials in the U.S. **Etoposide** Phosphate Antitumor agent. Preclinical trials in the U.S. and

Antiviral agent for herpes zoster

(shingles), primary varicella

(chickenpox), herpes simplex

Phase I clinical trials in the U.S.

Europe. BMY 25067 Antitumor agent. Preclinical trials.

BVaraU

(cold sores)

SQ 84,100

BMY 41546

Cholesterol-lowering resin. Preclinical trials.

BMY 43351 Antithrombotic agent. Preclinical trials.

SQ 33,351 Calcium channel blocker. Preclinical trials.

SQ 33,600 Cholesterol-lowering agent. Preclinical trials.

SQ 33,640 Oral thromboxane antagonist. Preclinical trials.

TGF-Beta

Tumor growth inhibitor. Preclinical trials.

Bryostatin Antitumor agent. Preclinical trials. BMY 27557

Antitumor agent. Preclinical trials.

Deoxyspergualin Novel antibiotic with antitumor and immunosuppressive activity. Preclinical trials.

BMY 35037

Monoclonal antibody to prevent neonatal sepsis. Preclinical trials.

Pradimicin Fungicidal. Preclinical trials.

HPMPC Antiviral agent.

Preclinical trials. SQ 34,054 Antiviral agent. Preclinical trials.

BMY 14802

Antipsychotic agent for treatment of schizophrenia. Phase I clinical trials in the U.S. NO-010754

Antipsychotic agent. Preclinical trials.

BMY 30123

Retinoid compound for acne. Preclinical trials. **TGF-Alpha** Wound healing. Preclinical trials.

HIV-1/2

Blood screening test for antibody to HIV-1 and HIV-2 Clinical trials in the U.S.

lopyrol Nonionic imaging agent. Preclinical trials.

Procef Oral cephalosporin antibiotic for upper respiratory, urinary tract, pediatric otitis media and skin infections. Phase III clinical trials in the U.S., Europe and Japan. d4T VIDEX (ddl) Anti-AIDS antiviral agent. Phase II clinical trials in the U.S., Also additional indication for depression. Phase III clinical trials in the U.S. Nefazodone Depression. Phase III clinical trials in the U.S. and Europe. dermatitis and psoriasis.

NDA filed in the U.S. in 1989. Sulconazole/Hydrocortisone

Valerate Inflammatory cutaneous fungal infections.

Product license application filed in the U.S. in 1989. HTLV-I Blood screening assay for antibody

to HTLV-L Product license application filed in the U.S. in Joor

Canada and Europe. Fungizone Lipid Complex Lipid-encapsulated formulation of Fungizone antifungal agent. Phase I clinical trials in the U.S. Anti-AIDS antiviral agent. Phase I clinical trials in the U.S.

Gepirone

Anxiety and depression. Phase III clinical trials in the U.S. and Europe. Ceranapril Anxiety, depression and cerebrovascular disease. Phase II clinical trials in the U.S. and Japan.

Phase III clinical trials in the U.S. BMY 30047 Retinoid compound for acne. Phase I clinical trials in the U.S.

BMY 30118 Sunscreen that provides protection

HIV-2 Diagnostic test for antibody to HIV-2 Product license application filed in the U.S. in 1987. HBsAg

Blood screening and diagnostic test

Injectable monobactam. Preclinical trials. SQ 84,049 Injectable monobactam.

Preclinical trials.

BMY 21502

Cognition enhancer for treatment of memory and cognitive disorders. Phase II clinical trials in the U.S. and Europe.

against UVA and UVB rays Phase I clinical trials in the U.S. **TGF-Beta** Psoriasis.

for Hepatitis B Surface Antigen. the U.S. in 1987.

Cerebral imaging agent. Phase III clinical trials in the U.S.; Phase II in Japan.

Prohance

Preclinical trials.

Product license application filed in

Paraplatin has been well received since its introduction, in part because of its more favorable side effect profile, allowing it to be used to treat cancer patients in outpatient settings.

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AUZI

Azuctam was .he first in a new class of potent antibiotics - the monobactams - for use in serious, hospital-scquired infections.





The company has the fourth largest antibiotics business worldwide.

they can act as "guided messiles," delivering drugs directly to the tumor site without harming healthy tissue. They can also be linked directly to therapeutic radionuclides, radioisotopes used to treat tumors and cancers and to image parts of the body. L6 has entered Phase II clinical trials for use against breast, lung, colon and ovarian cancers. Researchers also are attempting to link monoclonal antibodies with several existing anti-cancer drugs.

Anti-Infectives

he worldwide antiinfectives market. including antibiotics and antivirals, is expected to grow from about \$17 billion in 1989 to over \$24 billion in 1993. The fastest growth in this market will come in antivirals, expected to grow at an annual rate of 31 percent, from an estimated \$850 million in 1989 to about \$2.5 billion in 1993. In the U.S., where some 40,000 patients are now being treated for AIDS, it is expected that ome 200,000 patients will be rest ving treatment in 1993.

Bristol-Myers Squibb has committed substantial resources to a major research effort to combat AIDS. In 1989, the company received FDA approval of a Treatment IND (Investigational New Drug) protocol under which *VIDEX* (ddI) can be used to treat patients with AIDS and severe AIDS-Related Complex who are intolerant to AZT. *VIDEX*, a promising antiviral agent, also entered Phase II clinical trials in the U.S. and Canada, and the company received approval for its voluntary compassionate distribution program in the U.S. and Canada, under which patients for whom need is critical, but who are not eligible for either Phase II trials or the Treatment IND protocol, can receive VIDEX. Under all three protocols, VIDEX is made available free of charge. Evidence to date indicates that VIDEX may be useful in patients. intolerant to AZT, but without some of the harmful side effects of AZT treatment.

A chemical relative of AZT and VIDEX, d4T, is also under active clinical investigation and has entered Phase I trials. D4T shows promise in its ability to inhibit replication of the AIDS virus and seems to have a potentially favorable therapeutic index.

In late 1988, a pilot study reported in the Annals of Internal Medicine that Megace, the company's hormonal product for treatment of advanced cases of cancer of the breast or endometrium. helped a group of patients with AIDS regain their appetite and gain weight. The use of Megace resulted in marked improvement in the 14 patients studied. A national study is now underway to evaluate the effectiveness of that treatment.

Oncogen's AIDS vaccine, *HIVAC-le*, has entered Phase II clinical trials in the U.S. Tests also are underway to assess the effects of using another vaccine, developed by MicroGeneSys and also in clinical trials, as a booster to the Oncogen vaccine. Thus far, the immune response to this corabination exhibited in volunteers seems promising.

Azactam (aztreonam), first in a new class of antibiotics

called monobactams when it was introduced in 1986, is used to treat life-threatening hospital-acquired gram negative infections, including certain strains of Pseudomonas aeruginosa, considered one of the most difficult bacterial infections to treat.

A study by the U.S. Centers for Disease Control estimated that one out of 20 hospital patients in the U.S. acquires an infection, resulting in 100,000 deaths per year. The problem is even more serious in other parts of the world. Azactam has demonstrated a substantially lower incidence of kidney damage and deafness than many other treatments for these infections. It is effective in many types of infections, including hospital-acquired pneumonia, septicemia, surgical infections and urinary tract infections. Many of these infections occur in very ill patients. where effectiveness and safety are important. With the increase of patients with AIDS and cancer. whose immune systems already are compromised as a result of their illnesses or treatments, it is expected that hospital-acquired infections will increase.

Among the company's other leading antibiotics are Duricef (cefadroxil) and Velosef (cephradine), oral cephalosporins with broad spectrums of activity. Amikin (amikacin), the first important member in a new class of semisynthetic aminoglycosides when it was introduced in 1975, remains one of two major aminoglycosides in the world used for serious hospital-acquired infections. Bristol-Myers Squibb also markets a

where range of other semisynthetic penicillins and cephalosporins.

Phase III clinical trials of cefepime, a broad-spectrum, fourth-generation injectable cephalosporin, and Procef (cefprozil), a second-generation oral cephalosporin, are nearing completion, and New Drug Applications are being prepared for submission to the FDA in 1990. Cefepime has shown significant potency, even against microbial strains resistant to the newest antibiotics. Procef has shown efficacy against skin, respiratory tract and urinary tract infections in both children and adults.

An antiviral compound, BVaraU, is currently in Phase I clinical trials in the U.S. It is being tested for use against shingles and chickenpox, as well as cold sores. It would be the first oral treatment for these diseases. The market worldwide for these indications is expected to be about \$1 billion in the late 1990s.

With the increasing number of immunocompromised patients who often are subject to fungal infections as a result of cancer treatments or AIDS therapy, it has become increasingly important to have an effective antifungal agent that exhibits an improved side effect profile.

Fungizone (amphotericin B) is the most powerful antifungal weapon available to treat progressive, potentially fatal systemic fungal infections. However, because of kidney toxicity, its use has been limited. Now a liposome form of Fungizone has been developed, so that the drug is delivered into the body in what is essentially a fatty capsule, reducing its potential for kidney toxicity. That delivery form is now in Phase I clinical trials.



Bristol-Myers Squibb is an emerging force in the central nervous system therapeutic category.

Bristol-Myers Squibb Company Pharmaceuticals -- 1989 Worldwide Sales

Anti-infectives	-		\$ 1,098
			592
Cardiovasculars		 	167
Central nervous system			265
Demiatologicals			186
Diagnostics.			275
Other pharmaceuticals (promanly includes women's treath, insum, respiratory and gastromitestinal			353
products)			

Total



The company markets a number of dermatological ethical products including Kenalog, a long-established topical steroid.



Lac-Myr/rin is the or ty prescription drug approved by the FDA to combat dry skin.

\$4,442



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Central Nervous System

orldwide 1989 sales of central nervous system drugs are estimated at about \$10 billion, with the market expected to grow to about \$15.5 billion in 1993.

The company's leading central nervous system drug is BuSpar (buspirone) Introduced in 1985, BuSpar is the first in a new class of anti-anxiety agents that are effective without many of the unwanted side effects of traditional benzodiazepine anti-anxiety agents. It is non-sedating and not habitforming, and works in a novel way to combat anxiety. Its lack of abuse potential has helped fuel sales significantly. In the United Kingdom, for example, where BuSpar was introduced in 1988, the benzodiazepines have been delisted by government health authorities and therefore are not reimbursed by national health insurance. BuSpar prescriptions continue to be reimbursed. The compound also has achieved significant sales growth in France and other European countries where it has been introduced.

BuSpar shows promise for use in a number of additional indications. The company submitted an NDA to the FDA in 1989 for its use in treating anxiety associated with depression. Trials are also underway to establish its usefulness in treating depression as a distinct entity. Additionally, the compound has shown some promise in helping people break smoking and alcohol habits.

Other central nervous system drugs marketed by Bristol-Myers Squibb include *Desyrel* (trazodone), an antidepressant with fewer side effects than others on the market, and *Prolixin* (fluphenazine hydrochloride), an antipsychotic.

Stadol (butorphanol) is a potent analgesic that is non-addictive, unlike the morphine derivatives in widespread hospital use. The FDA is currently reviewing a new transnasal dosage form of Stadol, to provide relief of moderate to severe pain without the discomfort and inconvenience of an injection.

Gepirone, a compound with both anti-anxiety and antidepressant activity, and nefazodone, a potent antidepressant with a very favorable side effect profile and fast onset of action, are in Phase III clinical trials in Europe and the U.S.

Dermatologicals



he worldwide market for dermatological products exceeded \$5.3 billion in 1989.

Bristol-Myers Squibb, primarily through Westwood Pharmaceuticals, has the third largest ethical dermatology business in the world, with the largest dermatology research group in the U.S.

Leading Causes of Death, U.S. (1987)

Kan			
#1	Heart diseases	312.4	
#2	Malignant rumors		
#3	Cerebrovascular diseases		
#4	Accidents		
	Motor vehicle accidents		
	All other accidents		
#5			
#6	Pneumonia and influenza	28.4	
#7	Diabétes mellitus		
#8			
#9			
#11	Atherosclerosc		
#11	#11 Nephritis, nephrotic syndrome, and nephrosis		
#1.	Homicides		~
#1			
#1	Postnatal complications		
#15			
		115.4	

Kenner National Center (in Health Statistic)



Bristol-Myers Squibb has the third largest dermatology business worldwide. Many skin conditions are accerbated by aging. The ing of the population is anging the nature of the armatology business, quiring additional prodcts to protect skin from the armful and aging effects f the sun, eliminate or ecrease wrinkling of the kin, dry skin, liver spots, nd other conditions that accease with age.

The company's ethical lermatological products nclude the long established opical steroids, Kenalog (triamcinolone acetonide) and Halog (halcinonide); Mycolog nystatin-triamcinolone cetonide), a combination topical steroid and antifungal agent; Exelderm (sulconazole nitrate), an antifungal introduced in 1989; Westcort (hydrocortisone valerate), the best-selling mid-potent topical steroid; Actiderm, a novel dermatological patch for treating various dermatoses; and Lac-Hydrin (ammonium lactate) and Moisturel, to treat dry skin.

Lac-Hydrin remains the only prescription drug approved by the FDA to combat dry skin. In addition to treating moderate to severe dry skin, it is indicated for the treatment of ichthyosis, a condition that affects nearly a million people in the U.S. Sufferers have a scaly, fishlike skin. Lac-Hydrin reestablishes a more normalappearing skin structure. Tipredane, a novel topical steroid, is pending FDA approval for use in treating atopic dermatitis and psoriasis. Unlike other topical steroids, tipredane is metabolized more completely in the skin, therefore minimizing possible side effects. Also pending before the FDA is an application for approval of halobetasol propionate, an ultra-potent topical steroid.

Diagnostics

n the U.S., the market for nonionic contrast media used to enhance the effectiveness of modern medical imaging techniques is estimated at more than \$500 million. It is believed that the U.S. market now represents about a third of the total global market for imaging agents. Overall the U.S. market is growing by about 30 percent a year. driven by the growing sophistication and variety of imaging procedures.

Bristol-Myers Squibb has been a major producer of diagnostic imaging agents since the 1950s. Nine of the 13 original patents in the field were issued to the Squibb Institute for Medical Research.

Until the 1980s and the introduction of nonionic imaging agents, the contrast media used sometimes caused unwanted side effects and patient discomfort.

The introduction in 1986 of *Isovue* (iopamidol), a nonionic imaging agent used in cardiology and radiology, significantly improved patient tolerance. Because of licensing agreements, the company sells *Isovue* only in North America. A leader in nonionic imaging agents, Bristol-Myers Squibb also markets several AIDSrelated diagnostic test systems.



A researcher at Genetic Systems uses the division's LAV EIA test for antibodies to the AIDS virus.

CardioGen-82, for cardiac imaging, received FDA clearance at the end of 1989. It is the first Positron Emission Tomography (PET) agent to receive FDA approval. Cardiotec. an imaging agent for use in diagnosing myocardial infarctions and ischemic heart disease, is pending FDA approval. Prohance (gadotramidol and caltramidol), an agent used in Magnetic Resonance Imaging (MRI), is in Phase III clinical trials in the U.S. and Phase II in Japan.

While Squibb Diagnostics develops agents for use in vivo-in the patient's body-Genetic Systems in Seattle, Washington, develops and markets diagnostics for use in vitro-outside the body. Its leading product is a highly accurate test to screen blood for antibodies to the HIV-1 virus which is the major cause of AIDS. The company is now awaiting FDA approval for a test to detect the presence of HIV-2, the second known ALDS VITUS.

Consumer Products

he company's consumer divisions make and market proprietary medicines and toiletries, haircolorings, hair care and skin care products, vitamin supplements, beauty and personal care appliances, and a variety of household cleaning and specialty products.

All told, Bristol-Myers Squibb markets more than 140 different consumer products.

Nonprescription Medicines and Personal Care



emographic and societal trends are creating new possibilities for nonprescription medicines. As governments around the world seek new ways to control rising health care costs, and as consumers

themselves become increasingly more educated about and involved in their own health care, the trend toward switching prescription drugs to nonprescription status will continue and grow. The market for nonprescription medicines is expected to grow between six and nine percent annually through 1993.

In the U.S., nonprescription analgesics, the largest segment of the over-thecounter base ness, accounted for an estimated \$2.2 billion in sales in 1989. This segment is expected to grow at about six percent a year through 1993. Outside the U.S., markets are substantial and growing-over \$300 million in Germany in 1988, about \$288 million in France, over \$200 million in Japan and nearly \$170 million each in Italy and the United Kingdom.

Bristol-Myers Sgubb Company Global Leadership Positions -- Consumer Products (Selected Markets-1988)

U.S.

- #1 Glass Cleaners #1 Air Fresheners

- #1 Handle Goods
- #1 Hairsetters #1 Styling Moosse
- #1 Flexible Shape
- #1 Foot Care Products
- #1 Automatic Bowl Cleaners
- #1 Facial Antiseptics
- #2 Drain Cleaners
- #7
- #7 Analgesics

Canada

The Theragran line of multivitamins is a leading brand in its category.

Bristol-Myers

Squibb markets a broad

analgesics.

line of

#2 Anti-Perspirant Roll-Ons

13. KL

#1 Harcolorings #] Anti-Perspirant Roll-Ons

Mexico

Australia

- #1 Harcolorings
- #1 Drain Cleaners





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NUPRIN

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150 CONTED TABLET



Nuprin (ibuprofen) was originally available only by prescription before ibuprofen was approved by FDA for nonprescription use in 1984. Ibuprofen brands are now the fastest-growing over-the-counter analgesics on the market.

The company's expanding pharmaceutical research pipeline may offer additional candidates for switches from ethical to OTC status.

In the U.S., Bristol-Myers Products markets a number of leading analgesics including Nuprin, Bufferin, Excedrin and Datril, in addition to Therapeutic Mineral Ice. This year, Excedrin P.M., used to relieve pain accompanied by sleeplessness, achieved record sales, as the product received new advertising support.

In late 1989, Bristol-Myers Products introduced a new advertising campaign for *Bufferin*, which features actress Angela Lansbury in commercials discussing its usefulness to those over 50 who lead active lives.

In 1989, Bristol-Myers Products submitted an application to the FDA for approval of professional labelling that would allow doctors to recommend aspirin every other day to reduce the risk of primary heart attack. Aspirin products like *Bufferin* are already indicated, under a doctor's supervision, for use in reducing the risk of a second heart attack.

Bufferin is the leading branded analgesic in Japan, where Excedrin also is marketed. Extending the popular brand name, Bufferin Children's Syrup (an acetaminophen-based product) was introduced in Japan in 1988, and Bufferin Children's Cough Syrup was introduced in 1989.

Anti-perspirants, including Ban in the U.S. and Mum overseas, continue to sell well. Mum is the leader in unit sales of deodorants in Mexico. It is the leading rollon brand in the U.K. and Spain, where it was introduced for men this year. The Mum line of anti-perspirants is the company's largest consumer brand in Europe.

In the cough/cold category, the division extended the popular *Comtrex* line, which now also includes *Comtrex* Cough Formula and Liqui-Gels. Liqui-Gels represent a new technology. While they contain the same four ingredients found in *Comtrex* tablets and caplets, they are encapsulated inside a smooth gelatin shell, making them easier to swallow while delivering fast r-'ief.



Today are all love above burns and that more appending to on original production or hearing that when Conflow me band of signal a such a good, theone "got the against from about of what and that holes me hear doning the things o never to do" Augela Landburg

the you can do the things you want to do!

Bristol-Myers Squibb Company Consumer Products – 1989 Worldwide Sales





Actress Angela Lansbury is featured in a new advertising campaign for Bufferin, aimed at the growing population of active older Americans. Theragran is the second argest national multivitamin rand in the United States nd is also sold in a number other countries around the forld.

The company's consumer kin care products include he Sea Breeze line, Alpha Keri Shower and Bath products, Keri lotions and moisturizers, PreSun Sunscreens and Fostex acne medications.

Haircolorings and Hair Care

lairol is the leading haircoloring company in the United States and the second leading company worldwide. It markets a broad line of haircoloring and hair care products for use by consumers at home and by professionals in the salon, as well as health and beauty appliances.

The retail haircoloring market worldwide is about \$2 billion and is expected to grow between six and nine percent through 1993. In the U.S., more than 40 percent of women aged 13 to 69 use haircoloring, and almost 70 percent of that usage is athome. By the year 2000, the number of women between the ages of 45 and 54, a prime market for haircolorings, is expected to increase by about 50 percent.

Ultress is the fastest-growing major haircoloring brand in the United States. Actress Linda Evans acts as spokesperson for the brand. with its appeal to women over 40. Motif, a product patterned on Ultress, has been introduced successfully in Spain and Puerto Rico. Ultress was introduced in New Zealand in 1989. It is marketed as L'Image in Canada. Nice 'n Easy is the leader in the permanent haircoloring category in the U.S.

Clairol is also the U.S. leader in the salon or professional segment of the haircoloring market, a segment that continues to grow with the increased numbers of working women using salons, with products like *Miss Clairol*, *Torrids* and *Logics*.

While about 40 percent of all women in the U.S. color their hair, less than 10 percent of men do. There are currently 40 million men who are either partially or fully gray. Expected to be a \$50 million market by the end of 1990, the men's haircolor segment is expected to continue to increase as men stay in the workforce for a longer time, and as the numbers of older men continue to grow. Clairol expects the number of male haircolor users to increase by 15 percent over the next decade.

In 1989, Clairol launched the Option line of men's haircoloring products, including Option Instant and Option Gradual. Option Instant features a delivery system



Bristol-Myers Squibb Company Consumer Products Sales Force Size - 1989



Clairoi markets an extensive line of hair care products, including shampoos, conditioners, hair fixatives and appliances.

allowing users to mix the haircolorings almost instantly by simply pressing a button on the applicator, covering gray in about five minutes. Advantages include ease of use and natural color.

Clairol also markets the Vitalis line of men's hair care products.

Scientists at Clairol are now at work on new delivery systems for women's haircolorings, as well as more basic research on learning how the body naturally colors its own hair. Clairol holds several patents on the use of precursors to the body's own pigmentation chemicals. These chemicals may someday prove useful in more naturally and easily coloring hair.

Non-aerosol Final Net hair sprays have seen strong growth throughout Europe, particularly in the U.K., where it is marketed as Finalé, and in Germany. Part of that success can be attributed to the fact that Final Net and Finalé were among the first non-aerosol hair sprays in those markets, at a time when environmental concerns about the depletion of the ozone layer by the chlorofluorocarbons found in traditional aerosols were increasing. Final Net was introduced in Spain in 1989.

In the United States, Final Net is the leader in the pump hair spray category. It was restaged in 1989 to update its look, and a new line of Final Net Styling Aids was launched, specifically aimed at a younger consumer group that wants the Final Net heritage of superior hold in its styling mousses and gels.

Household Products

he market for household products in North America is approximately \$2.2 billion.

Demographic trends favor growth. Although households are getting smaller, going down from 2.76 to 2.64 people from 1980 to 1988, the number of households in the U.S. has increased about 12.7 percent over the same period. More but smaller households, with many single working people or working couples, as well as older Americans, give impetus to products that provide convenience.

Drackett has leadership positions in virtually all the categories in which it competes.

Over 20 percent of 1989 volume in the company's U.S. household products was accounted for by products that did not exist prior to 1986. This is particularly noteworthy given the fact that the overall likelihood of new product success is less than one in 20 in this category. Bristol-Myers Squibb makes and markets a broad line of skin care products to consumers around the world.

Ker



Combining effective performance with decorative aesthetics, *Renuzit Freshell* was introduced in early 1989.



Bristol-Myers Squibb household care products are leaders in many categories in which they compete.

Ultress is the fastest growing major brand in the consumer haircoloring category.

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Mum, aiready the leader in the roll-on segment of the Spanish antiperspirant market, was introduced for mon in that country in 1989. anticipa 4

In 1989, Drackett introduced a new air freshener in the U.S., *Renuzit Freshell*. Using a special wick delivery system, and novel shellshaped packaging, the product has contributed to the division's *Renuzit* line leadership position in the growing air freshener category.

Other leading Drackett products include Windex glass cleaners, Drāno drain openers, VANiSH bowl care products, Endust dusting

Medical Devices

Pristol-Myers Squibb medical device divisions hold world leadership positions in artificial hip and knee joints, ostorny appliances, wound care products, middle ear prostheses, custom vascular and burn care garments, hemostatic closure products, wound drainage products, powered surgical instruments, ureteral stents and mammary prostheses.

The company also competes in a number of other segments of the medical devices market including fracture management products, urologic implants, and clean weids, *Behold* furniture polishes and *O-Cedar* mops, brooms and cleaning tools.

In Australia, New Zealand and the U.K., the company markets the *Mr. Muscle* line of cleaning aids.

arthroscopic equipment, orthopaedic softgoods, sur-

gical instrumentation, and

other surgical specialties.

Orthopaedics

Bristol-Myers Squibb Co**xer**any Global Leadership Positions—Medical Devices (Selected Markets—1988)

1.6.

- #1 Total Knee Imple
- #1 Total Hap Implants
- #1 Partial http://mplanna
- wit Powered Instruments
- #1 Wound Dearman Person
- #1 Orthopsedie Instrument
- #1 Traction Supplies
- #1 Dermatornes (akin gridtin)
- #1 Citation Compression Garmen
- O Osterry Products
- O Hydrocolloid Dres
- 1 Ureteral Stenis
- 1 Mammary Proubes
- #1 Manual Lagating Clip Systems
- #1 Rhinologic Provideses
- J Sterile Microscope Drap
- Other Implants (shoulders,
- cloows)

lanada

- 1. Total Flip Implants
- #1 Custom Compression Garment (vascular, burn)
- 1 Ostorny Products
- #1 Hydrocollogd Dreisan
- with Mitrovisian Providence
 - Surile Microscope Drapes
- #1 Powered Instruments
 - #1 Wound Drainage Produ
 - # 1 Total Frace Implants
 - Products
 - #2 Onlogic Ventilation Tubes

lapan

- #1 Total Hip Imphast
- #1 Tigel Knes Implan
- #1 Osterny Products -
- #1 Hydrocelloid Dreisings
- Powered Instruments
- #2 Practure Management
- # Cholonic Vanishtine Tuba

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- 1 Osionny Products
- 4] Hydrocolloid Dressings
- #1 Otologic Ventilation Tu
- #1 Muddle Ear Prästheses

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France

- #1 Istal Knge Implan
- #1 Oxformy Products
- #1 Hydrocolloid Dreisings
- Powered Instruments
- Fig. V sorogit, V cprimeton annex # 2 Martin V - Press Constraints

U.K.

- #1 Total Knee Impia
- #1 Custom Compression Corment (burn)
- 41 Ostomy Products
- #1 Hydroculioid Dreso
- #1 Oblogic Ventilation Tube
- *1 Middle Ear Prosities
- I Powered lastrament

Seale

- #1 Hydrocolloid Dressanps
- #1 Otologic Vertilation Tables
- #1 Sterile Microscope Drapes
- #1 Khinelogic Prosthese
- #2 Total Knei, Implan
- #2 Opionity Products.

Australia

- #1 Total Phy Impian
- #1-Toral Knee Implant
- #1 Custora Compression Garment
- #1 Ownimy Products
 - #1 Hadreedhild Dissociant
 - W1 Depressing Insertment average
 - 61 Woord President Dendo
 - #2 Otologic Ventilation Tabes

Philippines

- #I Hydrocolloid Dressings -
 - 1 Octomy Products

United States and throughout the industrialized world, and overall health care spending trends, signal a greater demand for Zimmer

he global orthopaedics

market of the 1990s

will be larger and more

diverse than in the past.

Aging populations in the

orthopaedic implants. The 1989 worldwide orthopaedic market is estimated at \$3.3 billion and is expected to grow at a rate of about 10 percent annually through 1992.

Most hip and knee replacements occur as a result of osteoarthritis, a disThe major benelits of joint replacement surgery are relief of pain and restoration of function. This patient received an Insall/Burstein Posterior Stabilized Total Knee in early 1988.

The Aven

Arthroscopic instruments from Zimmer ere gaining in popularity because arthroscopic procedures significantly reduce patient trauma and recovery time. Images from inside the joint are transmitted to a television monitor, facilitating both diagnosis and repair of diseas 1rinjure/



Bristol-Myers Squibb Company Medical Devices Sales Force Size-1989

implant markets

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ease of the aging in where joints become painful and mobility is impaired, and rheumatoid arthritis, a disease that breaks down the cartilage at joint surfaces.

Some 40 million Americans are estimated to suffer from arthritic diseases. Worldwide, arthritis afflicts hundreds of millions. Its severity ranges from occasional discomfort to intense pain and the deterioration of the joints in the body. Sometimes, arthritis can cripple. In severe cases, artificial hip and knee replacements often can provide relief and allow individuals to return to an active life style.

uring 1989, Zimmer introduced two new total knee systems. The *MG II* Total Knee System offers technological improvements over the widely accepted earlier *Miller/Galante* system. The *MG II* is more flexible because of its modular design, and more capable of reproducing the natural movements and biomechanics of the knee.

The Insall/Burstein Posterior Stabilized II Knee provides surgeons with a modular design for added surgical flexibility. First introduced by Zimmer in the late 1970s, the Insall/ Burstein Knee has proven to be one of the most reliable and clinically successful knee implacts worldwide. The Zimmer Anatomic Hip, introduced in late 1988, has gained marketplace acceptance as part of The Total System, the most widely used hip replacement products in the world. The design of the Anatomic Stem is based on computer modeling of the human anatomy and allows surgeons to match implant to patient precisely.

Z

immer markets its products through some 70 exclusive distributors in the U.S. and separate sales forces overseas. It places a high value on customer service and ships a large percentage of its orders within 24 hours.

The company continues to invest heavily in orthopaedic research, both in the U.S. and abroad. In recent years, this has led to the development and introduction of new porous total hips and knees that allow bone to grow directly into the metal implant to provide fixation.

Much of the research is concentrated on new materials and materials processing. This research includes improvements to the metals and plastics currently in use. the development of new, non-metallic composite plastics and ceramics, and the development of synthetic, bone-like materials which can offer improved implant fixation and safer bone bank substitutes. Researchers also are developing resorbable materials that can be used in orthopaedic procedures. then absorbed into the body after they have achieved their therapeutic effect.

Arthroscopic procedures are expected to grow because they are minimally invasive and can be used both to diagnose and repair certain joint disorders. In 1988, over one million arthroscopic procedures took place in the U.S. alone. In 1989, Zimmer organized its arthroscopy business into Zimmer Arthroscopy Systems division to address the needs of this growing market.

Hall Surgical is a world leader in powered surgical equipment. Hall products are pneumatically, electrically or battery powered, with application in a number of surgical disciplines.

Zimmer Patient Care supplies traction frames and many of the softgoods used in the orthopaedic field, including braces, slings, splints and other means of immobilizing joints.

Ostomy

n 1988, some 160,000 ostomy procedures were performed worldwide. Typically, such operations are required by older people. As that population continues to grow, the ostomy market will grow with it.

Ostomies are surgical openings in the abdominal wall which are made to allow the passage of bladder, intestinal or renal wastes outside the body, usually following the removal of a segment of the gastrointestinal tract or bladder because of a cancer or other disease.

ConvaTec's breakthrough product for post-surgical patient management. Stomahesive, adheres to the skin and acts as a tight-fitting barrier to drainage, even in the presence of moisture.

Wound and Burn Care



he company's DuoDERM line of wound dressings, first introduced in 1982, and now marketed around the world. features a bacteria-proof outer laver and an inner adhesive layer. The inner haver contains a patented matrix of materials that reacts to the wound's own fluids, creating a gel that fills the wound site, stimulating white blood cell growth and promoting healing.

Duoderm products remain firmly attached to the skin in the presence of moisture and are superior to and more cost-effective than conventional gauze dressings, particularly in the management of chronic non-healing wounds, like leg ulcers, pressure sores, burns, abrasions or other superficial wounds.

Jobst Institute, based in Toledo, Ohio, is a leader in burn care garments, used to apply pressure to promote the healing of skin in burn victims. It also markets wound dressings in the U.S.

Zimmer Patient Care markets the Snyder Hemovac closed wound drainage device, and the Dermatome, used in skin grafting procedures.



Bristol-Myers Squibb Company

Medical Devices-1989 Worldwide Sales

\$1,227 Total



Bristol-Myers Soulbb makes and markets a broad line of specialty surgicalitems for the ostomy, wound care, burn care and vascular specialties

DUODERM hydroactive dressings, from ConvaTec, are used to treat wounds.

Surgical Specialties

bout 20 million Americans suffer from some form of hearing loss. Many are older Americans. Xomed-Treace is a leading maker of prostheses for the small bones in the middle ear, and of drainage tubes for chronic middle ear infections. Xomed-Treace entered the hearing device field in 1986, with the Audiant Bone Conductor. It uses a special rare earth magnet implanted behind the ear in the skull, and an amplifier attached to it, to conduct sound waves through the skull, around a damaged middle ear, to the inner ear and then on to the brain for processing. Under development are devices using similar technology to deal with sensorineural hearing loss, where the inner ear has been damaged and so cannot conduct sound waves to the brain.

In addition to work centered on the ear, Xomed-Treace introduced the *Xomed Nerve Integrity Monitor-2* in 1989, a device that can help a surgeon avoid damage to the facial nerve during surgery. Other applications, to monitor other nerves in the body that can be affected during surgery, are being studied.

In 1989 s estimated that about 150,000 women underwent breast implant surgery. Products for this market include Surgitek's Meme mammary implant, used for breast reconstruction after mastectomies and for breast augmentation. The Meme implant helps avoid a side effect of breast implantation, a condition called capsular contracture. in which the natural immune system of the body recognizes the implant as a foreign body and contracts around it, making the implant sometimes feel as hard as a tennis ball. The polvurethane coating on the Meme seems to avoid that problem for most patients.

Surgitek is the leader in ureteral stents, tube-like devices made of silicone that help promote drainage from the kidney to the bladder. The division also markets penile implants, including the Uniflate 1000, introduced in 1988, which offers surgeons a much simpler and less invasive procedure for implanting the prosthesis than other devices on the market. The Endourology line of ureteroscopes, introduced in 1988, allows urologists to look in to the kidneys. both for diagnosis and treatment.





The Xomed Nerve Integrity Monitor-2 is used during delicate intracranial surgery to monitor the activity of cranial nerves which serve the muscles used in facial expression and vocalization.

Dr. Jorge Galante, a pioneer in developing porous-coated implants, explains to a patient how the Zimmer Anatomic Hip Prosthesis will be used to replace the portion of her hip joint damaged by arthritis. Me is chairman, department of orthopaedics, Rush-Presbyterian-St. Luke's Medical Center in Chicago.

Gerber Baby Formula was introduced in the U.S. in 1989.



Bristol-Myers Squibb Company Global Leadership Positions – Nutritional Products (Selected Markets – 1988)

U.S.

#1 Pediatric Vitamins

- #2 Infant Formulas
- #2 Enteral Nutritionals

Canada

- #1 Children's Liquid Vitamins
- #1 Routine Infant Formulas
- #2 Specialty Infant Formulas
- #2 Enteral Nutritionals

Mexico

#1 Enteral Nutritionals

Taiwan

#1 Infant Formulas

Philippines

#2 Infant Formulas #2 Enteral Nutritionals



Mead Johnson Worldwide Nutritionals makes and markets a broad range of routine and specialty infant formulas around the world.

Jobst has important entries in vascular surgery and is the world leader in compression garments and other devices to improve circulation and reduce swelling. Its line of anti-thrombotic products reduces the risk and consequences of deep vein clotting related to major surgery. Recent new products include specialized garments that enhance healing after open heart surgery by applying pressure and enabling easy inspection of the surgery site. A companion product for female patients is a specialized mammary

support used after open heart surgery.

Edward Weck, Inc., manufactures a broad range of specialized instruments and related medical products used in surgical and diagnostic procedures. Weck is a market leader in surgical closure products, including the Hemoclip, which is used during surgery to tie off blood vessels, and WeckStat skin staplers. Weck's Argon Medical unit makes products for the angiography and critical care markets. including catheters and guide wires.

Nutritionals



ristol-Myers Squibb manufactures and

markets a wide array of nutritional products through the Mead Johnson Worldwide Nutritional Group. These range from routine infant formulas for well babies to the most complete line of specialty formulas for infants with serious nutritional disorders, nutritional supplements for children and adults, and enteral nutritionals primarily for use in older patients who require special nutritional support.

Routine Infant Formulas

he company holds the second largest infant formula share in the world, competing in a \$3.4 billion global market that is expected to grow between six and nine percent through 1993.

Sustagen Mighty Drink, in vanilla, chocolate and honey nut flavors, is a leading nutritional supplement for young children in Taiwan.

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The company's line of routine infant formulas includes the milk-based brands, *Enfamil* and *Enfalac*, and the soy-based *ProSobee*. *Enfamil* and other Mead Johnson formulas and products are promoted directly to physicians, health care professionals and hospitals throughout the world.

Research shows that parents are playing an increasingly important role in making decisions about which infant formula brand to use. It is expected that 20 percent of the U.S. formula market will be consumerdriven by 1994.

In 1989, the company negotiated a marketing agreement with Gerber Products Company, the leading baby food manufacturer in the United States, to market Gerber Baby Formula directly to consumers. Advertising for Gerber Baby Formula stresses the superiority of breastfeeding over any infant formula brand and advises parents to consult with their baby's physician before choosing a formula.

In 1986, Bristol-Myers Squibb entered the European market for routine infant formulas with Enfalac in France and Spain. Since that time, the company has introduced several innovations in those markets, including the first liquid, ready-to-use formula in France, in Tetra Brik aseptic packaging. A manufacturing facility in the Netherlands represents the latest in manufacturing technology and ensures Mead Johnson

Worldwide Autritionals is well-positioned to compete in the \$500 million European infant formula market. *Enfalac* is the market

leader in Canada and a solid competitor in Mexico. The company also is a key player in the Pacific Rim countries, particularly Taiwan and the Philippines, and has recently introduced a follow-on formula for older babies in the Asian market.

Specialty Formulas

the four million babies born in the U.S. this year, about 4,000 will require a special formula. And about 400 of those will be at risk of severe physical or mental retardation, even death, because of an inborn error of metabolism. Mead Johnson supplies about 95 percent of all the specialty nutritionals used in the U.S. While this line of 27 formulas may treat, in some cases, fewer than 100 children on a particular formulation, they provide critical nutrition that is not available from other sources.

Specialty formulas, already marketed in most European countries, were introduced in Germany and Greece in late 1989.

Nutramigen is designed to meet the needs of a larger group of infants requiring special nutrition — those with severe allergies or protein sensitivity. It supplies protein in a hydrolyzed or predigested form which is more easily tolerated by babies who may be sensitive to the whole proteins found in cow's milk or sov formulas.

Bristol-Myers Squibb Company Nutritional Products Sales Force Size -- 1989







With 27 special metabolic formulas, Mead Johnson Worldwide Nutritionals plays a unique role as the primary supplier of products critical to proper early development for infants and children with inborn errors of metabolism or food protein allergies.
Nutritional Supplements

he Sustagen line of nutritional supplements is sold throughout Asia and Latin America. Marketed directly to consumers, various Sustagen brands are targeted to specific audiences. For example, in Taiwan, Sustagen Mighty Drink is a leading nutritional supplement for young children. Ma Ma Sustagen is marketed in Taiwan as a nutritional supplement for lactating or pregnant women. In Indonesia, Sustagen Junior focuses on children one to five years old. In Australia, Sustagen Gold is targeted at young working adults. Each product is formulated with different vitamin, mineral and protein levels to suit the needs of the specific market.

Nutrament, from Drackett, is a nutritious specialty fitness and energy food marketed through food and health products retailers. It is particularly popular in the Caribbean region, as well as in Caribbean and Hispanic communities in the U.S.

Enteral Nutritionals

ead Johnson markets a wide variety of enteral nutritionals including *Isocal*, *Traumacal*, *Criticare* and *Sustacal*. Some, like *Sustacal*, are sold for use as oral supplements. Others, like *Isocal*, are used in tube feedings for those too sick to be fed orally.

The enteral nutritionals market is growing, both in proportion to the aging population, and as a result of the need to keep health care costs down. For many patients, the only alternative to enteral nutrition is parenteral, or intravenous, feeding. Intravenous products cost about 10 times more than enteral products and often require hospitalization or close medical supervision. Enteral products may be used in a health care facility or at home, offering cost efficiency and improved quality of life.

The total enteral market in the U.S. has grown from about \$288 million in 1986 to about \$400 million in 1989. Outside the U.S., the European market is over \$100 million and Japan is about \$160 million. In 1993, the U.S. market is expected to reach \$536 million.

Isocal RTU, pre-mixed and packaged for more convenient use, was introduced in Japan in 1989. A new patented tube-feeding system that will make nasogastric feeding much more efficient and convenient is being introduced in France, Spain and Japan. Sustacal with Fiber, in several flavors, was introduced in 1989 in the U.S.



Isocal, a complete nutritional product for patients, is prepared for use in a hospital in Japan.

Bristol-Myers Squibb Company Nutritional Products – 1989 Worldwide Sales





A number of specialty nutritional products, including vitamins, nutritional supplements and medically promoted enteral nutritionals are marketed throughout the world.

Many new mothers rely on Enfamil infant formula to provide nutrition during the baby's first year of life when breastfeeding is not possible or a supplement is required.

TIETTE

Programs of Public Interest

Company Seeks New Non-Animal Tests

ristol-Myers Squibb Company has long been involved in the search for non-animal tests in order to lessen reliance on animal test methodologies in safety testing of new pharmaceuticals and other products. It supports a variety of efforts to seek nonanimal (in-vitro) test methods, with a commitment of over \$1 millioa in the search for new approaches.

Unless specifically required by law, animal testing is employed only after all relevant non-animal approaches have been exhausted and an unacceptable level of doubt remains concerning the possibility of a significant adverse human reaction. Once reliable data have been obtained, repeat or duplicate tests are not conducted.

Over 99 percent of the animals Bristol-Myers Squibb uses are for the development and safety testing of pharmaceutical and health care products.

The company already uses many non-animal tests and is committed to using new systems as quickly as they are developed and accepted by the Federal government and the biomedical community. It participates in a number of organizations which are evaluating existing in-vitro methods.

In 1983, Bristol-Myers Squibb established a Biochemical and Cellular Toxicology Department to develop test tube methodologies for screening new drugs in drug development and toxicity testing. Its Experimental Toxicology Unit has developed a number of invitro models and recently entered into a collaborative research agreement with Marrow-Tech to develop non-animal toxicity assays.

The company sponsors an annual company-wide symposium on nonanimal alternatives. In 1989, it focused on "Progress in Reducing, Refining and Replacing Animals in Toxicology and Biomedical Research."

During 1989, the company provided start-up funding for the Tufts School of Veterinary Medicine's Center for Animals in Public Policy's new newsletter, The Alternatives Report. It also participates in the Center's Alternatives in Toxicology Testing Project, whose goal is to develop a plan for in-vitro methods which will have the support of regulatory ager cies, academic and industry scientists and the public.

Since 1981, Bristol-Myers Squibb has placed grants totalling over \$1 million with the Johns Hopkins Center for Alternatives to Animal Testing and the United Kingdom's Fund for the Replacement of Animals in Medical Experiments to support the development of in-vitro methods by outside laboratories. The company also has supported one of its scientists in founding the Industrial In-Vitro Toxicology Group, an industry-wide organization dedicated to the development, validation and industrial application of invitro testing methods.



During 1989, Bristol-Myera Squibb hosted an industrywide conference on in-vitro toxicology at its Wallingford facility in the continuing search for alternatives to animal tests. When animal testing is necessary, the company is committed to ensuring the humane treatment of animals. In 1982, Bristol-Myers Squibb established a permanent corporate Committee on Animal Welfare to supervise all aspects of animal care to ensure humane treatment of animals in company facilities and in testing done by outside laboratories for the company.

Also that year, it formalized corporate-wide Animal Care and Use Guidelines and established internal auditing mechanisms to ensure their strict enforcement. The guidelines are more stringent than those used by the National Institutes of Health.

All company laboratories in the U.S. are accredited by the American Association for Accreditation of Laboratory Animal Care. All employees involved with laboratory animal use participate in an ongoing, company wide training program. A video, produced by the company in 1989, focuses on corporate animal care and use policies, the humane treatment of laboratory animals and the search for alternative tests. It is mandatory viewing for all employees involved with laboratory animal use.

Bristol-Myers Squibb helped to underwrite the costs of Veterinary Ethics by Jerrold Tannenbaum, the first comprehensive textbook on veterinary ethics, and has provided financial support to the Hasting Center's ongoing program, Ethics of Animal Experimentation.

Unrestricted Medical Research Grants

Since 1977, Bristol-Myers Squibb Company has committed more than \$24 million in unrestricted support of cancer, nutrition, orthopaedic, neuroscience and pain research, with grants to medical schools and research institutions in North America, Europe and Asia.

Two new institutions were added to the cancer research grants program in 1989 — Duke University and the University of Texas M.D. Anderson Cancer Center, Total funding committed to the program is now over \$12.3 million.

The twelfth annual Bristol-Myers Squibb Award for Distinguished Achievement in Cancer Research was presented in 1989 to Dr. Peter K. Vogt for his oncogene and retrovirus discoveries.

The Ontario Cancer Institute/ Princess Margaret Hospital in Toronto organized the twelfth annual Bristol-Myers Squibb Symposium on Cancer Research on "Molecular Mechanisms and Their Clinical Application in Malignancies."

The ninth annual Bristol-Myers Squibb Award for Distinguished Achievement in Nutrition Research was awarded to Dr. Richard J. Havel of the Cardiovascular Research Institute and the University of California at San Francisco School of Medicine for his contributions to lipid and lipoprotein metabolism research.

Vanderbilt and Cornell Universities were added to the unrestricted nutrition grants program in 1989. Total funding for the program, begun in 1980, is \$4.5 million.

"New Techniques in Nutrition Research," the ninth annual Bristol-Myers Squibb Symposium on Nutrition Research, was organized by the Dunn Nutrition Unit, Medical Research Council, Cambridge, England.

Two new pain research grants were awarded in 1989. The University of California at Los Angeles and the University of Iowa received the five-year grants. They will be used to study the mechanisms of pain, as well as new methods of pain control. Total funding committed to the program since its inception is \$1.75 million.

Dr. Ronald Dubner of the National Institute of Dental Research of the National Institutes of Health received the second annual \$50,000 Bristol-Myers Squibb Award for Distinguished Achievement in Pain Research. He first identified specific pain-sensing cells and their connections in the central nervous system.

Dr. Wayne H. Akeson of the University of California at San Diego received the second annual \$50,000 Bristol-Myers Squibb/Zimmer Award for Distinguished Achievement in Orthopaedic Research for his pioneering contributions to orthopaedic medical education and research.

The orthopaedics research grants program, expanded in 1987, is sponsored by Bristol-Myers Squibb and Zimmer, with the Orthopaedic Tracy Carmen, a graduate student at Northwestern University's Kellogg Business School, and a summer intern in

Drackett's marketing department, received a 1989 Bristol-Myers Squibb Minority Fellowship award.



Research and Education Foundation. During 1989, four new grant recipients were announced: the University of Michigan, the University of Minnesota, the University of Pennsylvania and Case Western Reserve University.

The program also includes a symposium, which in 1989 focused on total knee arthroplasty. Total funding for the program since it began is \$2.5 million.

The University of North Carolina at Chapel Hill in 1989 was added to the company's unrestricted neuroscience research grants program. The five-year grant will support research in an area of the brain involved in seizure disorders, like epilepsy and stroke.

Bristol-Myers Squibb presented its second annual Award for Distinguished Achievement in Neuroscience Research to Dr. Julius Axelrod, a Nobel laureate in Medicine, of the National Institute of Mental Health, Dr. Arvid Carlsson of the University of Goteborg, Sweden, and Dr. Paul Greengard of The Rockefeller University. They shared the \$50,000 prize for their pioneering contributions to understanding the molecular basis for the actions of psychoactive drugs.

The company's first annual Symposium on Neuroscience Research was sponsored by the Johns Hopkins Medical Institutions on "Neuroscience: Integrative Functions." The company has committed \$3 million to the neuroscience research grants program.

Equal Employment Opportunity

Bristol-Myers Squibb Company is committed to the equitable representation of women and minority group members at all levels of job responsibility.

Currently, 33.2 percent of the company's professional and managerial employees in the U.S. are women and 12.3 percent are minority group members. The company's most recent report on its equal opportunity initiatives can be obtained from Communications Services, Bristol-Myers Squibb Company, 345 Park Avenue, New York, NY 10154.

Programs for Women and Minorities

The company provides direct grants and scholarship assistance to educational institutions to support a variety, of scholarships and fellowships for women and minorities. Community programs to help women, minorities and the disabled advance in their careers and achieve career goals also receive company support.

Bristol-Myers Squibb Foundation

In 1989, charitable contributions from the Bristol-Myers Squibb Foundation, the company, its subsidiaries and divisions, and the Mead Johnson Foundation totaled more than \$15 million. Medical research, health-related and community service organizations received 50 percent of combined company and Foundation contributions; educational institutions and educationrelated programs received 30 percent; and cultural and civic activities received 20 percent.

Bristol-Myers Squibb researchers discuss changes in the action of genes caused by a new compound under development to treat central nervous system disorders. 1. 25 %

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Financial Report

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Financial Review

Summary

On October 4, 1989, Squibb Corporation merged with a subsidiary of Bristol-Myers Company. As a result of the merger, Bristol-Myers Company changed its name to Bristol-Myers Squibb Company. Squibb common stock became entitled to be exchanged at a ratio of one share of Squibb for 2.4 Bristol-Myers Squibb shares. The transaction has been accounted for as a pooling-of-interests and, accordingly, all financial data for periods prior to the merger have been restated. For additional information, see Note 2 to the Consolidated Financial Statements.

Bristol-Myers Squibb achieved record sales in 1989 of \$9.2 billion. Domestic sales, which amounted to 64% of total sales, increased 7%, while international sales increased 8%.

In the fourth quarter of 1989, a charge of \$740 million was recorded in connection with the company's plans to integrate the operations of Bristol-Myers and Squibb and to organize its pharmaceutical, medical device, nonprescription health and toiletries, beauty aids and household businesses on a global basis. This charge included the costs of reducing the number of production facilities and employment levels worldwide,

employee relocations and other related items. The fourth quarter of 1989 also included an additional \$115 million charge for the costs of professional fees and other expenses related to the merger. The after-tax effect of both charges was \$693 million, or \$1.32 per share. Because of these charges, net earnings and earnings per share in 1989 decreased 40% to \$747 million and \$1.43 per share, respectively, from \$1,254 million and \$2.39 per share in 1988.

At December 31, 1989, the company held \$2.3 billion of cash and cash equivalents, time deposits and marketable securities, and the amount of working capital was \$2.9 billion. The company's operating and capital requirements continued to be financed through internally generated funds, while dividend payments on common stock were again increased. Sales and net earnings have grown at a compound annual growth rate of 10% and 9%, respectively, over the last ten years. Over the same period, dividend payments per common share have increased at a compound annual growth rate of 19%.

Net Sales and Earnings

Worldwide sales increased 7% in 1989 to \$9.2 billion compared to increases of 13% and 14% in 1988 and 1987, respectively. The 1989 consolidated sales growth resulted from volume increases of 6% and price increases of 3%, and was partially offset by a 2% decline due to unfavorable foreign currency translation. In 1983, sales growth was attributable to approximately 8% of volume growth, 4% of price increases and favor-



able foreign currency translation of approximately 1%. Domestic operations reported sales growth of 8% in 1988 versus 12% in 1987, while international operations reported sales growth of 24% and 19% in 1988 and 1987, respectively.

Net earnings and earnings per share decreased 40% in 1989 to \$747 million and \$1.43 per share, respectively, as a result of providing for the costs of integrating the company's businesses. Net earnings margin decreased to 8.1% in 1989, from 14.7% in 1988 and 14.1% in 1987, also as a result of these charges. In 1988, net earnings and earnings per share were \$1,254 million and \$2.39 per share, respectively, compared to \$1,068 million and \$1.98 per share in 1987. Unfavorable foreign exchange rates in highly inflationary countries negatively impacted the growth of net earnings by 3% or \$.08 per share in 1989, 3% or \$.07 per share in 1988 and 3% or \$.04 per share in 1987.

The effective income tax rate increased to 41.5% in 1989 from the 33.6% rate in 1988 and the 34.4% rate in 1987. The increase in the effective tax rate in 1989 principally resulted from integration and non-deduct-ible merger expenses.

In December 1987, the Financial Accounting Standards Board issued Statement No. 96, Accounting for Income Taxes, which requires a change in the method of accounting for income taxes. This statement, as amended, requires the change for fiscal periods beginning after December 15, 1991. Had the company adopted this Standard in 1989, the effect on the financial statements would not have been significant.

Expenses

Total costs and expenses, excluding the charge for integrating businesses of \$855 million, were 76.8% of sales in 1989 compared to 77.9% in 1988 and 78.5% in 1987. As a percentage of sales, cost of products sold decreased again in 1989, improving gross margin for the eighth consecutive year. The gross margin was 71.1% in 1989, up from 71.0% in 1988 and 69.5% in 1987. Favorable product mix and improved manufacturing efficiencies contributed to this trend.

Marketing, selling and administrative expenses, as a percentage of sales, were 28.1% in 1989, 28.3% in 1988 and 28.1% in 1987. The decrease in 1989 primarily resulted from the favorable impact of administrative cost containment programs. Expenditures for advertising and promotion in support of new and existing products remained at a high support level of 13.3% of sales in 1989 versus 13.9% and 14.6% in 1988 and 1987, respectively.

Research and development expenses increased 15% in 1989 to \$789 million, following increases of 22% and 19% in 1988 and 1987, respectively. Since 1980, research and development expenses have increased from \$198 million to \$789 million in 1989. Pharmaceutical research and development spending increased 18% in 1989, 24% in 1988 and 19% in 1987, and as a percentage of pharmaceutical sales was 14.8% in 1989, 13.6% in 1988 and 13.1% in 1987.



Marketing, Selling and

Advertising and Product Promotion Expenses



37 11.8 19.6 14.4 15.2 14.9 14.5 14.8 19.9 13.3



Development Expenses



Industry Segments

In 1989, all segments of the company's business contributed to sales growth. The Pharmaceutical Products Segment, the company's largest segment representing 48% of total sales, reported an 11% sales increase in 1989. The sales increase resulted from a 10% increase in volume and a 4% increase in pricing, partially offset by a 3% decrease due to unfavorable foreign currency translation. Domestic sales increased 17%, while international sales increased 6%. Worldwide sales of cardiovascular drugs, the largest product group in this segment, increased 13% to \$1.7 billion. This increase was led by sales of captopril, sold primarily under the major trademark Capoten. Sales of captopril, the company's largest selling product, rose 16% in 1989 to \$1.2 billion. Captopril remains the world's largest selling angiotensin-converting enzyme (ACE) inhibitor and is one of five prescription pharmaceutical products with sales in excess of \$1.0 billion. Sales of Questran, the company's cholesterol-reducing agent, increased by 30% reflecting, in part, the introduction of Questran Light, a more convenient and less caloric form. In the company's long-established anti-infectives sector, sales reached \$1.1 billion worldwide. The increase resulted primarily from the success of Azactam, the first commercial monobactam antibiotic, which has been proven to be highly effective against life-threatening, gram-negative bacterial infections. Since its introduction in 1984, worldwide sales of Azactam have grown from \$7 million to \$139 million in 1989. The sales growth of Azactam more than offset volume declines in cefadroxil, a broad-spectrum oral

cephalosporin, sold primarily in the U.S. under the trademarks Duricef and Ultracef. The company continues to strengthen its leadership in cancer therapy. Sales of anti-cancer drugs totalled \$592 million in 1989 and reflected a 38% gain over the prior year. In 1989, the largest selling drug in this group was VePesid, widely used in the treatment of small cell lung cancer and with expanding use in the treatment of gastric cancer. Sales of Paraplatin, a drug used in the treatment of recurrent ovarian cancer, more than tripled to \$98 million primarily as a result of its domestic introduction in March. The new product introductions of Ifex and Mesnex in the United States contributed \$33 million in sales. Strong sales performance was again achieved in the company's line of central nervous system drugs. An overall 16% increase was led by sales of BuSpar, the company's unique anti-anxiety agent, and was partially offset by declines in sales of Desyrel, an antidepressant drug, which is no longer under patent and is experiencing generic competition. Diagnostics sales increased 7% in 1989, fueled primarily by the growth of Isovue, a nonionic contrast agent.

Pharmaceutical products segment sales increased 18% in 1988. Increased volume contributed 11% to the sales growth while price increases and favorable foreign exchange contributed 5% and 2%, respectively. The growth was due primarily to Capoten, Questran, Azactam, VePesid, Isovue, BuSpar, Paraplatin and Platinol. In 1987, sales for the segment increased primarily as a result of volume growth in anti-



Marketable Securities

infectives, anti-cancer, central nervous system and cardiovascular drugs. Operating profit margin in 1989 was 15.8% compared to 23.8% in 1988 and 24.3% in 1987. The decrease in 1989 resulted from the charge recorded in connection with the integration of the company's pharmaceutical products business, which was 11.3% of sales.

Sales in the Medical Devices Segment increased 11% over 1988 and reflected a 9% increase in volume, a 4% increase in pricing, partially offset by a 2% decrease due to unfavorable foreign currency translation. Domestic sales in this segment increased 10%, while international sales increased 13%. In 1989, worldwide sales of orthopaedic implants rose 13%, led by The Total System line of hip replacement products and the Miller/Galante Total Knee System. The company currently holds the number one market position in the hip and knee prostheses markets. Sales of ostomy care products increased 12% due primarily to the Stomahesive and the Sur-Fit/Combihesive and Durahesive product lines. As a result of marketing efforts and product development programs, the company has become the worldwide market share leader in ostomy appliances.

Worldwide sales of medical devices increased 14% in 1988 due to a 9% increase in volume, a 3% increase in price and a favorable foreign exchange effect of 2%. Volume increases in 1988, as well as in 1987, were due primarily to growth in the orthopaedic implant and ostomy care businesses. Operating profit for the segment increased at a greater rate than sales and produced a 23.0% operating profit margin in 1989, compared to 22.3% in 1988 and 19.1% in 1987.

Sales increased 1% in the Nonprescription Health Products Segment primarily due to price increases. The worldwide sales increase reflected an 18% increase in international sales and was partially offset by a 4% decline in domestic sales. Sales of nutritional products. the largest product group in this segment, increased by 2% to nearly \$1.1 billion. This growth reflected the international success of the company's adult nutritional products, primarily Sustagen and Isocal, which was in part offset by declines in domestic sales of infant formulas. As a result of increased pricing pressures from the federal government's Women, Infants and Children program, the company's principal infant formulas, Enfamil and ProSobee, experienced sales declines. Analgesic sales increased 1% over the prior year. The strong performances of Nuprin, the company's ibuprofen product, and Therapeutic Mineral Ice, an external pain-relieving gel acquired in November 1988. more than offset declines in sales of Bufferin.

In 1988, sales growth in the nonprescription health products segment was 7% and reflected a 4% increase in price and a 3% increase in volume. The sales growth was due primarily to gains in *Enfamil*, *Bufferin*, *ProSobee*, *Sustagen* and *Nuprin*. In 1987, the sales growth resulted primarily from price increases on infant formulas and volume growth of cough/cold products. Operating profit margin was 21.0% in 1989, down from 27.0% in 1988 and 25.3% in 1987. The decline in 1989 was due primarily to the charge recorded in connection with the integration of the



company's nonprescription health products business, which was 1.3% of sales, together with an increased investment in selling, advertising and promotion.

Sales in the **Toiletries**, **Beauty Aids and Household Products Segment** were 1% higher in 1989 as a 4% increase in pricing more than offset a 2% decline in volume and a 1% decline due to unfavorable foreign currency translation. Domestic sales rose 1%, while international sales rose 4%. In the haircoloring product group, sales increased 2% to \$476 million, reflecting the continued strength of *Miss Clairol* and *Ultress*. Antiperspirant sales rose 2% primarily as a result of *Ban* volume growth. Sales of the company's household products increased 7% reflecting the introduction of *Renuzit Freshell* in May, and the continued success of *VANiSH* bowl cleaners.

In 1988, the 9% sales growth in the toiletries, beauty aids and household products segment resulted from a 7% increase in volume and a 4% increase in selling prices, partially offset by a 2% decrease from unfavorable foreign currency translation. The sales increase resulted from the combined performances of *Nice 'n Easy*, *Loving Care*, *Miss Clairol*, *Windex*, *Renuzit RoomMate* and *VANiSH Drop-Ins*. In 1987, volume increases in haircoloring products, hair fixatives, beauty appliances, air fresheners and bowl cleaners contributed to the increase in the segment's sales. Operating profit margin in 1989 decreased to 11.6%, from 16.5% in 1988 and 16.1% in 1987, reflecting the effect of the charge for inte-

grating the company's toiletries, beauty aids and household products businesses, which was 5.8% of sales for the segment.

Geographic Areas

Sales of the company's domestic operations increased 7% in 1989 versus 8% in 1988 and 12% in 1987. The growth was driven primarily by volume in the company's pharmaceutical products and medical devices segments.

Internationally, the company recorded an 8% sales increase in 1989, following a 24% increase in 1988 and a 19% increase in 1987.

In 1989, sales in Europe, Mid-East and Africa, net of inter-area sales, increased 8%, due primarily to the continued growth of the company's pharmaceutical products and medical devices segments. Operating profit margin was 10.7% compared to 18.7% in 1988 reflecting the effect of the charge for integrating businesses, which was 9.8% of sales. Sales in Other Western Hemisphere countries increased 15% attributed to pharmaceutical and nonprescription health products. The 1989 charge for integrating businesses reduced operating profit margin to 15.5% from 19.3% in 1988. In the Pacific area, sales rose 1% due to increases in sales of nonprescription health products primarily in Asia. Operating profit margin decreased to 5.1% from 9.1% in 1988 primarily as a result of the charge for integrating businesses, which was 5.2% of sales.

In 1988, Europe, Mid-East and Africa sales increased 28% as a result of favorable gains in the pharmaceutical products and medical devices segments. Profit from



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Book Value per

Common Share

operations rose to \$372 million from \$267 million in 1987 benefiting from improved sales and favorable product mix. Other Western Hemisphere sales increased 16% due primarily to stronger sales of pharmaceutical, nonprescription health and household products. The strong sales growth contributed to the increased operating profit of \$130 million in 1988 versus \$113 million in 1987. Sales in the Pacific area rose 23% in 1988 reflecting the strong performances of pharmaceutical products and medical devices, coupled with favorable foreign currency gains. Operating profit increased to \$71 million from \$39 million in 1987 due primarily to the strong sales performance.

Financial Position

The company's financial position remained strong. Cash, including cash equivalents, time deposits and marketable securities totalled \$2.3 billion at December 31, 1989 compared to \$2.5 billion and \$2.3 billion at December 31, 1988 and 1987, respectively. Working capital management resulted in a combined growth of 30% in accounts receivable and inventories over the last three years, while sales increased by 39%. In 1989, short-term borrowings declined by \$398 million reflecting the repayment of commercial paper, and long-term debt declined by \$47 million.

Internally generated funds from operations continue to be the company's primary source for financing expenditures for new plant and equipment. Over the past three years, Bristol-Myers Squibb has invested \$1.4 billion in capital expansion in a commitment to maintain superior research facilities and to increase plant efficiency. During this period, the company has also paid nearly \$1.9 billion in cash dividends to stockholders. Dividends per common share increased 19% to \$2.00 in 1989, and reflect the seventeenth consecutive year that dividends have increased.

With respect to the charge for integrating businesses, the effect of future cash expenditures is expected to be more than offset by the significant integration benefits and operating efficiencies which will be realized in administrative and manufacturing areas of the company. These savings will provide additional resources for the company to continue to increase its investment in research, sales and marketing activities in support of its leadership objectives in worldwide markets.

The company's ability to maintain a triple A credit rating, a substantial unused borrowing capacity and a low long-term debt to equity ratio of 4.7% is further evidence of the company's commitment to maintain an overall excellent financial position. Book value per common share at the end of 1989 was \$9.67, more than doubling over the last ten years.

Earnings per Common Share



Dividends per Common Share



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Quarterly Financial Data (Unaudited)*

				Earnings
(in millions of dollars except per share amounts)	Net Sales	Gross Profit	Net Earnings	Per Share
1989: First Quarter Second Quarter Third Quarter Fourth Quarter** Year	\$2,265 2,244 2,320 2,360 \$9,189	\$1,622 1,605 1,646 1,660 \$6,533	\$ 344 345 411 (353) <u>\$ 747</u>	\$.66 .66 .78 (.67)
1988: First Quarter Second Quarter Third Quarter Fourth Quarter Year	\$2,117 2,101 2,196 <u>2,144</u> \$8,558	\$1,497 1,497 1,553 <u>1,527</u> \$6,074	\$ 301 305 355 <u>293</u> \$1,254	\$.57 .58 .68 .56

*Amounts prior to the fourth quarter of 1989 have been restated for the merger.

**Included in the fourth quarter of 1989 is a \$740 million charge for integrating businesses and a \$115 million charge for professional fees and other expenses related to the merger. The after-tax effect of both charges is \$693 million, or \$1.32 per share.

Market Price

Bristol-Myers Squibb common and preferred stocks are traded on the New York Stock Exchange and the Pacific Stock Exchange (symbol: BMY). A quarterly summary of the high and low market prices is presented below:

1989		19	1988		
High	Low	High	Low		
\$471/2	\$44	\$457/8	\$393/4		
511/4	461/2	435/8	381/8		
533/8	463/4	447/8	391/4		
58	491/2	461/2	413/8		
1	989	1	988		
High	Low	High	Low		
\$193	\$190	\$179	\$173		
210	207	172	1673/4		
210	1983/4	185	172		
			the second second		
	19 High \$47 ¹ /2 51 ³ /4 53 ³ /8 58 <u>1</u> High \$193 210 210	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $		

Dividends

The company has increased its dividends on common stock in 1989 for the seventeenth consecutive year. Dividend payments per share in 1989 and 1988 were:

	Common		Preferred	
	1989	1988	1989	1988
First Quarter Second Quarter Third Quarter Fourth Quarter	\$.50 .50 .50 .50	\$.42 .42 .42 .42	\$.50 .50 .50 .50	\$.50 .50 .50 .50
Year	\$2.00	\$1.68	\$2.00	\$2.00

Consolidated Statements of Earnings and Retained Earnings

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Bristol-Myers Squibb Company

Year Ended December 31,

187 - Har Tal Area Marine in Annual Party and an and a	(in millions of dollars except per share amounts)	1989	1988	1987
Earnings	Net Sales	\$9,189	\$8,558	\$7,558
	Expenses: Cost of products sold	2,656	2.484	2 302
	Marketing, selling and administrative Advertising and product promotion	2,580 1,226	2,425 1,191	2,126
	Research and development	789 855	688	563
		7,912	<u>(119)</u> <u>6,669</u>	(161)
	Earnings Before Income Taxes	1,277	1,889	1,628
	Provision for income taxes.	530	635	560
	Net Earnings	\$ 747	\$1,254	\$1,068
	Earnings Per Common Share	\$1.43	\$2.39	\$1.98
ARDGRIGHTER CONTRACTOR OF THE ARD STREET				
Retained Earnings	Retained Earnings, January 1	\$5,207	\$4,594	\$4,052
	Net earnings	747	1,254	1.068
		5,954	5,848	5,120
	Less: Dividends Retirement of treasury shares	722 436	641	526
	Retained Earnings, December 31	\$4,796	\$5,207	\$4,594

The accompanying notes are an integral part of these financial statements.

Consolidated Balance Sheet

Bristol-Myers Squibb Company

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		D	lecember 31,	
	(in millions of dollars)	1989	1988	1987
A conte	Current Assets:			
ASSELS	Cash and cash equivalents.	\$ 510	\$1,966	\$1,101
	Time deposits	175	149	661
	Marketable securities	1,597	397	585
	Receivables, net of allowances	1,578	1,467	1,349
	Inventories	1,139	1,044	933
	Prepaid expenses.	553	399	377
	Total Current Assets	5,552	5,422	5,006
	Property, Plant and Equipment-net	2,350	2,188	1,927
	Other Assets	371	435	372
	Excess of cost over net tangible assets received in			- 12
	business acquisitions	224	228	209
	Dubiness acquisiters	\$8,497	\$8,273	\$7,514
	Comment Trisbillitions			And the second
Liabilities	Current Liabilities:	\$ 281	\$ 679	\$ 415
	Short-term borrowings	475	476	384
	Accounts payable.	1,414	974	837
	Accrued expenses	489	484	493
	Total Current Liabilities	2,659	2,613	2,129
	Other Liabilities	517	428	351
	그렇게 물건 방법을 들었다. 그 것 같은 것	227	284	279
	Long-Term Debt		2.204	7 750
	Total Liabilities	3,413	3,325	2,159
Stockholders' Equity	Preferred stock, \$2 convertible series: Authorized			
	10 million shares; issued and outstanding 05,750			
	liquidation value of \$50 per share	-		
	Common stock, par value of \$.10 per share:			
	525 775 524 in 1989, 546, 877,104 in 1988			
	and 545 096 569 in 1987	53	55	54
	Capital in excess of par value of stock	396	487	455
	Cumulative translation adjustments	(149)	(114)	(116
	Remined earnings	4,796	5,207	4,594
	Retained carnings .	5,096	5,635	4,987
	Less cost of treasury stock-437,118 common			
	shares in 1989, 26,086,073 in 1988 and		607	22
	10,183,283 in 1987	12	087	23.
	Total Stockholders' Equity	5,084	4,948	4,75
		the second se	251.211	(C. M. 19. 1)

The accompanying notes are an integral part of these financial statements.

Consolidated Statement of Cash Flows

Bristol-Myers Squibb Company

1.7	7	5 7 2			2.4
YEAR.	1-11/20	2/1 + 1 + 1/2	17 (7 894)	Prove .	51
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	the second s				
(in millions of dollars)	1989	1988	1987		
Cash Flows From Operating Activities:					
Net earnings	\$ 747	\$1.254	\$1.068		
Depreciation and amortization	196	185	161		
Provision for integrating businesses	855		1000		
Other operating items.	16	18	38		
Receivables	(211)	(159)	(169)		
Inventories	(123)	(114)	30		
Prepaid expenses.	(162)	(22)	(36)		
Accounts payable.	38	109	(35)		
Accrued expenses and income taxes	51	148	187		
Deterred income taxes	(103)	25	1		
Other assets and liabilities.	(114)	45	45		
Net Cash Provided by Operating Activities	1,190	1,489	1,290		
Cash Flows From Investing Activities:					
Proceeds from sales of time deposits and marketable					
securities	7,639	5.083	8,341		
Purchases of time deposits and marketable securities	(8,679)	(4,413)	(8,836)		
Additions to fixed assets Other, net—including in 1987 net proceeds from	(555)	(468)	(353)		
sales of businesses	(35)	(29)	156		
Net Cash (Used in) Provided by Investing					
Activities	(1,630)	173	(692)		
Cash Flows From Financing Activities:					
Short-term borrowings	(409)	269	96		
Long-term debt	(23)	(3)	(76)		
Issuances of common stock under stock plans	197	63	77		
Purchases of treasury stock	(51)	(487)	(163)		
Dividends paid	(722)	(641)	(526)		
Net Cash Used in Financing Activities	(1,008)	(799)	(592)		
effect of Exchange Rates on Cash.	(8)	2	3		
Decrease) Increase in Cash and Cash Equivalents	(1,456)	865	9		
lash and Cash Equivalents at Beginning of Year	1,966	1,101	1.092		
Calado I F. S. L. C. F. L. CH.	4 540	and the second			

The accompanying notes are an integral part of these financial statements.

Notes to Consolidated Financial Statements

Note 1 Accounting Policies

Basis of Consolidation

The consolidated financial statements include the accounts of Bristol-Myers Squibb Company and all of its subsidiaries.

Cash and Cash Equivalents

Cash and cash equivalents include cash on hand, cash in banks and all highly-liquid investments with a maturity of three months or less at the time of purchase.

Marketable Securities

Marketable securities are stated at cost, which approximates market.

Inventory Valuation

Inventories are generally stated at average cost, not in excess of market.

Property and Depreciation

Expenditures for additions, renewals and betterments are capitalized at cost. Depreciation is generally computed by the straight-line method based on the estimated useful lives of the related assets.

Excess of Cost over Net Tangible Assets

The excess of cost over net tangible assets received in business acquisitions subsequent to October 31, 1970 is being amortized on a straight-line basis over periods not exceeding forty years.

Earnings Per Share

Earnings per common share are computed using the weighted average number of shares outstanding during the year. The effect of shares issuable under stock options and warrants is not significant.

Note 2 Business Combination

On October 4, 1989, Squibb Corporation merged with a subsidiary of Bristol-Myers Company, and Bristol-Myers Company changed its name to Bristol-Myers Squibb Company. As a result, 97.4 million shares of Squibb common stock became entitled to be exchanged at a ratio of one share of Squibb for 2.4 Bristol-Myers Squibb shares, and 9.8 million shares of Squibb common stock owned by Squibb as treasury stock were retired. The merger has been accounted for as a pooling-of-interests and, accordingly, the accompany-ing consolidated financial statements for periods prior to the merger have been restated.

Operating results of the separate companies for periods prior to the merger were:

	Nine Months	Year l	Ended
	Ended September 30,	Decem	ber 31,
(in millions of dollars)	1989	1988	1987
Net Sales:	\$4,726	\$5,972	\$5,401
Bristol-Myers		2,586	2,157
oquite 1 1	\$6,829	\$8,558	\$7,558
Net Earnings:	\$ 716	\$ 829	\$ 710
Bristol-Myers	\$ 384	425	358
	\$1,100	\$1,254	\$1,068

Note 3 Provision for Integrating Businesses

In the fourth quarter of 1989, a charge of \$740 million was recorded in connection with the company's plans to integrate the operations of Bristol-Myers and Squibb and to organize its pharmaceutical, medical device, nonprescription health and toiletries, beauty aids and household businesses on a global basis. This charge included the costs of reducing the number of production facilities and employment levels worldwide, employee relocations and other related items. The fourth quarter of 1989 also included an additional \$115 million charge for the costs of professional fees and other expenses related to the merger. The after-tax effect of both charges was \$693 million, or \$1.32 per share.

Note 4 Foreign Currency Translation

Cumulative translation adjustments which represent the effect of translating assets and liabilities of the company's non-U.S. entities, except those in highly inflationary economies, were:

(in millions of dollars)	1989	1988	1987
Balance, January 1 Effect of balance sheet translations:	\$114	\$116	\$217
Amount	33 2	(2)	(94 (7
Balance, December 31	\$149	\$114	\$116

Transaction losses resulting from foreign currency transactions and translation adjustments relating to non-U.S. entities operating in highly inflationary economies, principally Brazil, of \$40 million, \$34 million and \$24 million, net of applicable income taxes, are reflected in net income for 1989, 1988 and 1987, respectively.

Note 5 Other Income and Expenses

Year Ended December 31, (in millions of dollars)	1989	1988	1987
Interest income Interest expense Other – net	\$233 (63) 24	\$209 (73) (17)	\$155 (52) 58
	\$194	\$119	\$161

Interest expense was reduced by interest capitalized on major property, plant and equipment projects by \$18 million in 1989, \$8 million in 1988 and in 1987. Cash payments for interest, net of amounts capitalized, were \$57 million, \$76 million and \$57 million for 1989, 1988 and 1987, respectively. In 1987, other – net included \$80 million of gains from the sales of certain businesses.

Note 6 Inventories

December 31, (in millions of dollars)	1989	1988	1987
Finished goods Work in process	\$ 612 206	\$ 584 172	\$ 527 162
Raw and packaging materials	\$1 120	288	\$ 022

Note 7 Property, Plant and Equipment

December 31, (in millions of dollars)	1989	1988	1987
Land Buildings Machinery, equipment and	\$ 140 1,137	\$ 119 1,079	\$ 91 1,013
fixtures	1,959 568	1,782 366	1,606 240
	3,804	3,346	2,950
Less accumulated depreciation	1,454	1,158	1,023
	\$2,350	\$2,188	\$1,927

Capitalized leases, principally machinery, equipment and fixtures, net of accumulated amortization, were \$16 million, \$19 million and \$23 million in 1989, 1988 and 1987, respectively.

Note 8 Short-Term Borrowings and Long-Term Debt

Short-term borrowings for the year ended December 31, 1989 were amounts due primarily to banks. For the years ended December 31, 1988 and 1987, short-term borrowings included amounts due to holders of commercial paper of \$448 million and \$150 million, respectively.

The company has short-term lines of credit with domestic and foreign banks. At December 31, 1989, the unused portions of these lines of credit were approximately \$185 million and \$505 million, respectively. The components of long-term debt were:

December 31, (in millions of dollars)	1989	1988	1987
5.906% Term Loan, due June 21, 1993	\$ 44	\$ 52	\$ 52
64/4% Promissory Notes, due June 4, 1992	42	49	47
6%% and 6½% Notes, due annually from 1995 to 2004	30	30	30
85%% Debentures, due annually November 1, 1991 to 1995	14	15	15
6.1% Adjustable Rate Notes, due December 1, 2023	9	25	25
5.7% Debentures, due annually June 1, 1991 to 1992	4	5	5
Capitalized lease obligations, due in varying amounts through 2004	11	14	19
Other, due in varying amounts through 2020	83	94	86
	\$237	\$284	\$279

Long-term debt at December 31, 1989 was payable:

Years Ending December 31. (in millions of dollars)

1991																						ω.		\$ 1001	4
1992																								8	5.
1993																								2	D
1994																			1					1	10
1995																								ŝ,	1
1996	3	nd	1	la	k	T																		4	10
																								\$ 23	7

On June 20, 1989, the 61/4% Promissory Notes due June 4, 1992 were refinanced from the previous rate of 83/8%. On December 1, 1989, the 6.1% Adjustable Rate Notes due December 1, 2023 were refinanced from the previous rate of 6%. These notes are adjustable on December 1 of every year through their maturity, subject to the company's right to convert on any December 1 to a fixed interest rate for the remaining term of the notes.

Accrued wages included in Accrued Expenses were \$177 million in 1989 and \$156 million in 1988 and in 1987. Included in Accrued Expenses and Other Liabilities in 1989 were \$307 million and \$186 million, respectively, relating to the charge for integrating businesses.

Note 9 Stockholders' Equity

On October 3, 1989, the stockholders approved an increase in the authorized shares of common stock from 750 million to 1.5 billion shares. On May 5, 1987, the stockholders approved a two-for-one split of the company's common stock, an increase in the authorized shares of common stock from 250 million to 750 million shares and a change in the par value of the common stock from \$1.00 per share par value to \$.10 per share par value. In the accompanying financial statements all per common share amounts have been adjusted to reflect the stock split.

Each share of the company's preferred stock is convertible into 4.24 shares of common stock and is callable at the company's option. The reductions in the number of issued shares of preferred stock in 1989, 1988 and 1987 were due to conversions into common stock.

Dividends paid per common share were \$2.00 in 1989, \$1.68 in 1988 and \$1.40 in 1987.

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Changes in capital shares and capital in excess of par value of stock were:

		Capital in Excess of Par Valu of Stock		
	Shares of Co	mmon Stock	(in millions	
	Issued	Treasury	of dollars)	
Balance, January 1, 1987	271,740,078	4,513,382	\$285	
split and change in par value.	271,740,078	4,513,382	217	
Exercise of options, rights and warrants.	1,498,323	(4,328,490)	(39	
preferred stock and debentures	118,090	(394,949) 5,879,958	(8	
Balance, December 31, 1987	545,096,569	10,183,283	455	
Exercise of options, rights and warrants Conversions of	1,721,075	(1,238,376)	32	
preferred stock.	59,460	17.141.166		
Balance, December 31, 1988	546,877,104	26.086.073	487	
Issued pursuant to stock plans, options,		and a subscription of an	201	
rights and warrants Conversions of	2,399,390	(3,641,109)	84	
Purchases	(23 567 796)	1,559,950	(175)	
Balance, December 31, 1989	525,775,524	437,118	\$396	
	CONTRACTOR OF THE OWNER NEAR THAT IS NOT THE	CERTIFICATION OF A DESCRIPTION OF A DESC	CARGO AND STORE SHOP SHOP SHOP SHOP SHOP SHOP SHOP SHOP	

Under the company's stock option plans, officers and key employees may be granted options to purchase the company's common stock at 100% of the market price on the day the option is granted. Additionally, the plans provide for the granting of stock appreciation rights whereby the grantee may surrender exercisable options and receive common stock and/or cash measured by the excess of the market price of the common stock over the option exercise price.

In November 1989, the Board of Directors approved a restricted stock award plan that provides for the granting of up to 3,000,000 shares of common stock to key employees, subject to restrictions as to continuous employment except in the case of death or normal retirement. Restrictions generally expire over a five year period from date of grant. During 1989, a total of 1,565,000 shares were granted under the plan.

Stock option transactions were:

95

	Shares of Con	mmon Stock
	Available for Option	Under Option
Balance, January 1, 1987 New Plan. Granted. Exercised Surrendered. L.psed	33,638,576 480,000 (3,492,220) 	20,825,242 3,492,220 (5,892,227) (42,641) (249,468)
Balance, December 31, 1987 Granted Exercised Surrendered Lapsed	30,755,849 (3,495,225) 	$\begin{array}{r} 18,133,126\\ 3,495,225\\ (3,082,314)\\ (430,384)\\ (240,341) \end{array}$
Balance, December 31, 1988 Granted. Exercised Surrendered. Lapsed Retired	27,393,796 (1,206,380) 496,072 (13,560,612)	17,875,312 1,206,380 (4,611,753) (51,373) (558,231)
Balance, December 31, 1989	13,122,876	13,860,335

At December 31, 1989, there were exercisable options outstanding to purchase 11,523,159 shares of common stock at prices ranging from \$5.01 to \$53.75 per share.

There were 156,000 warrants at December 31, 1989 to acquire shares of the company's common stock at an exercise price ranging from \$16.42 to \$18.83 per share, expiring in 1994 or following the purchase of certain limited partnership interests.

At December 31, 1989, 32,841,405 shares of common stock were reserved for issuance pursuant to stock plans, options and warrants and conversions of preferred stock.

Attached to each outstanding share of the company's common stock is one Right. The Rights will be exercisable if a person or group acquires beneficial interest of 15% or more of the company's outstanding common stock, or commences a tender or exchange offer for 15% or more of the company's outstanding common stock. Each Right will entitle stockholders to buy one one-thousandth of a share of a new series of participating preferred stock of the company at an exercise price of \$200. The Rights will expire on December 18, 1997. In the event of certain merger, sale of assets or self-dealing transactions each Right will then entitle its holder to acquire shares having a value of twice the Right's exercise price. The company may redeem the Rights at \$.01 per Right at any time until the 15th day following public announcement that a 15% position has been acquired.

Note 10 Provision for Income Taxes

The components of earnings before income taxes were:

Year Ended December 31, (in millions of dollars)		1989	1988	1987
U.S. Non-U.S.	\$	941 336	\$1,263 626	\$1,221 407
	\$1	.277	\$1.889	\$1.628

The provision for income taxes consisted of:

Year Ended December 31, (in millions of dollars)	1989	1988	1987
Current: U.S. Federal Non-U.S. State and local	\$457 236 61	\$348 262 51	\$365 184 49
State and Real	754	661	598
Deferred: U.S. Non-U.S.	(175) (49)	(1) (25)	(35) (3)
	(224)	(26)	(38)
	\$530	\$635	\$560

The 1989 deferred tax provision resulted from costs to be incurred for integrating businesses which will be deductible in later years.

Income taxes paid during the year were \$612 million, \$634 million and \$515 million for 1989, 1988 and 1987, respectively.

The company's provision for income taxes for 1989, 1988 and 1987 was different from the amount computed by applying the statutory United States Federal income tax rate to earnings before income taxes, as a result of the following:

	% of Earnings Before Income Taxes							
	1989	1988	1987					
U.S. statutory rate Integration and non-deductible	34.0%	34.0%	40.0%					
merger expenses	8.9		1					
Puerto Rico	(5.0)	(5.3)	(8.5)					
State and local taxes	1.9	1.8	1.8					
Non-U.S. operations	1.3	3.0	1.8					
Other.	.4	.1	(.7)					
	41.5%	33.6%	34.4%					

Prepaid taxes were \$332 million, \$223 million and \$211 million at December 31, 1989, 1988 and 1987, respectively.

The deferred income tax liability, included in Other Liabilities, was \$60 million, \$165 million and \$142 million at December 31, 1989, 1988 and 1987, respectively.

The company has settled with the Internal Revenue Service its United States Federal income tax returns through 1984.

Research tax credits, of approximately \$14 million in 1989 and \$13 million in 1988 and in 1987, are reflected as a reduction of income taxes in the year in which credits are allowed for tax purposes.

United States Federal income taxes have not been provided on substantially all of the unremitted earnings of non-U.S. subsidiaries, since it is management's practice and intent to reinvest such earnings in the operations of these subsidiaries. In those instances where it is the intent to remit earnings, United States Federal income taxes have been provided to the extent they are not offset by foreign tax credits. The total amount of the net unremitted earnings of non-U.S. subsidiaries was approximately \$1,087 million ai December 31, 1989.

Note 11 Retirement Benefit Plans

The company and certain of its subsidiaries have defined benefit pension plans for regular full-time employees. The principal pension plans are the Bristol-Myers Retirement Income Plan and the Squibb Pension Plan.

Cost for the company's defined benefit plans includes the following components:

Year Ended December 31, (in millions of dollars)	1989	1988	1987
Service cost – benefits carned during the year	\$ 66	\$ 63	\$ 61
Interest cost on projected benefit obligation. Actual earnings on plan assets Net amortization and deferral	109 (238) 101	88 (126) 4	79 (63) (50)
Net pension expense	\$ 38	\$ 29	\$ 27

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The weighted average actuarial assumptions for the company's pension plans are as follows:

December 31,	1989		1988		1987
Discount rate	8.8	/o /o	9.3% 5.3%		9.1% 5.2%
Long-term rate of return	10.89	10	10.9%		10.9%
The funded status of the plans is	s as follow	S:			
December 31, (in millions of dollars)	1989		1988		1987
Actuarial present value of accumulated benefit obligations:					
Vested	\$(1,023) (74)	\$	(774) (69)	\$	(699) (64)
	\$(1,097)	\$	(843)	5	(763)
Total projected benefit					
obligation. Plan assets at fair value	$\frac{(1,407)}{1,511}$	\$	(1,071) 1,167	\$	(965) 1,074
Excess of plan assets over pro- jected benefit obligation	104		96		109
at adoption	(172)		(175)		(190)
Unrecognized prior service cost Unrecognized net losses for year	108 (12)		99 8		94 14
Prepaid pension cost	\$ 28	\$	28	\$	27

Plan benefits are based primarily on years of credited service and on participant's compensation. Plan assets consist principally of equity securities, fixed income securities and group annuity contracts.

The company provides medical and life insurance benefits for certain retired employees who reach normal retirement age while working for the company. The cost of retiree health care and life insurance benefits is expensed as paid and totalled \$12 million, \$10 million and \$9 million in 1989, 1988 and 1987, respectively.

Note12 Segment Information

The company has restated the industry segments into the following four segments:

Pharmaceutical Products – prescription medicines, mainly cardiovascular drugs and antibiotics, which comprise about forty percent and twenty-five percent, respectively, of the segment's sales, anti-cancer and central nervous system drugs, diagnostic agents and other pharmaceutical products.

<u>Medical Devices</u>—orthopaedic implants, which comprise about forty percent of the segment's sales, ostomy care and wound management products, surgical instruments and other medical devices. Nonprescription Health Products – infant formulas and other nutritional products, which comprise about sixty-five percent of the segment's sales, analgesics, vitamins, cough/ cold remedies and skin care products.

Toiletries, Beauty Aids and Household Products haircoloring and hair care preparations, which comprise about forty-five percent of the segment's sales, deodorants and anti-perspirants, beauty appliances, household cleansing, specialty and laundry products.

Unallocated expenses consist principally of general administrative expenses and net interest income, and in 1989 include a portion of the charge for integrating businesses. Other assets are principally cash and cash equivalents, time deposits and marketable securities. Inter-area sales by geographic area for each of the three years ended December 31, 1989, 1988 and 1987, respectively, were: United States — \$638 million, \$558 million and \$420 million; Europe, Mid-East and Africa — \$302 million, \$306 million and \$240 million; Other Western Hemisphere — \$30 million, \$31 million and \$37 million; and Pacific — \$4 million, \$8 million and \$5 million. These sales are usually billed at or above manufacturing costs.

Net assets relating to operations outside the United States amounted to approximately \$957 million, \$1,563 million and \$1,217 million at December 31, 1989, 1988 and 1987, respectively.

Industry Segments (in millions of dollars)		Net Sale			Pn	$ofu^{(a)}$			Year-End Assets			
		1988	1987		1989		1988		1987	1989	1988	1987
Pharmaceutical Products.	\$4,442	\$3,987	\$3,386	\$	703	\$	949	\$	824	\$3,474	\$3,132	\$2,867
Medical Devices	1,227	1,102	964		282		246		184	817	737	626
Nonprescription Health Products	1,662	1,638	1,528		349		443		387	651	620	543
Toiletries, Beauty Aids and Household Products	1,858	1,831	1,680		215		303		271	710	714	666
Net sales, operating profit and assets	\$9,189	\$8,558	\$7,558	\$1	1,549	\$1	,941	\$1	1,666	\$5,652	\$5,203	\$4,702

Geographic Areas		Net Saler	1		$Profit^{(b)}$		Year-End Assets			
(in millions of dollars)	1989	1988	1987	1989	1988	1987	1989	1988	1987	
United States Europe, Mid-East and Africa Other Western Hemisphere Pacific Inter-area eliminations	\$6,478 2,127 769 789 (974)	\$6,013 1,992 672 784 (903)	\$5,474 1,560 590 636 (702)	\$1,259 228 119 40 (97)	\$1,462 372 130 71 (94)	\$1,296 261 113 39 (43)	\$3,943 1,272 336 496 (395)	\$3,484 1,172 330 505 (288	\$3,057 1,154 293 438 (240)	
Net sales, operating profit and assets	\$9,189	\$8,558	\$7,558	1,549	1,941	1,666	5,652	5,203	4,702	
Unallocated expenses and other assets	a ipin kana			(272)	(52)	(38)	2,845	3,070	2,812	
Earnings before income taxes and total assets	$c_{i} < 0 > 0$	****		\$1,277	\$1,889	\$1,628	\$8,497	\$8,273	\$7,514	

Industry Segments		il Expen	ditures	Depreciation			
(in millions of dollars)	1989	1988	1987	1989	1988	1987	
Pharmaceutical Products Medical Devices Nonprescription Health Products Toiletries Beauty Aids and Household Products	\$417 50 37 36	\$295 56 29 37	\$226 33 35 27	\$111 21 27 25	\$103 16 26 26	\$ 87 15 24 24	
Identifiable industry totals Other	540 22	417 54	321 36	184 12	171 14	150 11	
Consolidated totals	\$562	\$471	\$357	\$196	\$185	\$161	

^(a)The 1989 operating profit of the company's industry segments includes the charge for integrating businesses as follows: Pharmaceutical Products - \$500 million; Medical Devices - \$16 million; Nonprescription Health Products - \$22 million, and Toiletries, Beauty Aids and Household Products - \$108 million.

Note 13 Leases

Minimum rental commitments under all noncancellable operating leases, primarily real estate, in effect at December 31, 1989 were:

Years Ending December 31, (in millions of dollars)

(III HITHINIP OF POLICY 2)	
1990	\$ 99
1991 Separation of the second states and the second states	
1992	
1993	42
1994 Charles and the second second second	
Later years	205
Total minimum payments.	519
Less total minimum sublease rentals	101
Net minimum rental commitments	\$368

Operating lease rental expense (net of sublease rental income of \$18 million in 1989, \$19 million in 1988 and \$17 million in 1987) was \$121 million in 1989, \$112 million in 1988 and \$99 million in 1987.

Report of Management

Report of Independent Accountants

Management is responsible for the accompanying consolidated financial statements, which are prepared in accordance with generally accepted accounting principles. In management's opinion, the consolidated financial statements present fairly the company's financial position, results of operations and cash flows. In addition, information and representations included in the company's Annual Report are consistent with the financial statements.

The company maintains a system of internal accounting policies, procedures and controls intended to provide reasonable assurance, at appropriate cost, that transactions are executed in accordance with company authorization, are properly recorded and reported in the financial statements, and that assets are adequately safeguarded. The company's internal auditors continually evaluate the adequacy and effectiveness of this system of internal accounting policies, procedures and controls.

The Audit Committee of the Board of Directors is comprised solely of non-employee directors and is responsible for overseeing and monitoring the quality of the company's accounting and auditing practices. The Audit Committee meets several times during the year with management, the internal auditors and the independent accountants to discuss audit activities, internal controls and financial reporting matters. The internal auditors and the independent accountants have full and free access to the Audit Committee.

The appointment of Price Waterhouse as the company's independent accountants by the Board of Directors was ratified by the stockholders. Price Waterhouse's Report to the Board of Directors and Stockholders of Bristol-Myers Squibb Company appears on this page. To the Board of Directors and Stockholders of Bristol-Myers Squibb Company

In our opinion, the accompanying consolidated balance sheet and the related consolidated statements of earnings and retained earnings and of cash flows present fairly, in all material respects, the financial position of Bristol-Myers Squibb Company and its subsidiaries at December 31, 1989, 1988 and 1987, and the results of their operations and their cash flows for the years then ended in conformity with generally accepted accounting principles. These financial statements are the responsibility of the company's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with generally accepted auditing standards which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for the opinion expressed above.

Vice Waterhance

153 East 53rd Street New York, New York 10022

January 24, 1990

Ten-Year Financial Summary*

di Constanti di	(in millions of dollars except per share amounts)	1989	1988	1987
Operating Results	Net Sales	\$9,189	\$8,558	\$7,558
	Expenses: Cost of products sold Marketing, selling and administrative Advertising and product promotion. Research and development. Other**	2,656 2,580 1,226 789 661 7,912	2,484 2,425 1,191 688 (119) 6,669	2,302 2,126 1,100 563 (161 5,930
	Earnings Before Income Taxes***	1,277	1,889	1,628
	Provision for income taxes	530	635	560
	Net Earnings***	\$ 747	\$1,254	\$1,068
	Dividends paid on common and preferred stock	\$ 722	\$ 641	\$ 526
	Earnings per common share***	1.43 2.00	2.39 1.68	1.98 1.40
Financial Position at December 31	Current assets. Property, plant and equipment—net Total assets.	\$5,552 2,350 8,497	\$5,422 2,188 8,273	\$5,006 1,927 7,514
	Current liabilities	2,659 237 3,413	2,613 284 3,325	2,129 279 2,759
	Stockholders' equity	5,084	4,948	4,755
	Average common shares outstanding (in millions)	523	525	538
	Book value per common share	\$ 9.67	\$ 9.49	\$ 8.88
	(in millions)	\$ 9.67	525 \$ 9.49	\$

*Restated for the merger.

**Includes provisions for integrating businesses of \$855 million in 1989 and \$58 million in 1981 and a provision for permanent impairment of certain foreign assets and operations of \$68 million in 1986.

*** Excludes discontinued operations for 1986 and prior years.

Bristol-Myers Squibb Company

1986	1985	1984	1983	1982	1981	1980
\$6,620	\$5,849	\$5,473	\$5,126	\$4,721	\$4,565	\$4,139
2.081	1.947	1.877	1.843	1,761	1.822	1.639
1,814	1.583	1,478	1,404	1,350	1,275	1,164
962	874	831	736	640	622	565
474	412	344	301	260	226	198
49	(137)	(95)	(52)	(63)	36	(16)
5,380	4,679	4,435	4,232	3,948	3,981	3,550
1,240	1,170	1,038	894	773	584	589
455	438	392	357	300	250	233
\$ 785	\$ 732	\$ 646	\$ 537	\$ 473	\$ 334	\$ 356
\$ 404	\$ 342	\$ 284	\$ 229	\$ 203	\$ 180	\$ 161
1.44	1.35	1.20	1.01	.91	.66	.72
1.06	.901/2	.75	.581/8	.50%	.441/2	.39
\$4.264	\$3.641	\$3,138	\$2.929	\$2.716	\$2.607	\$2 310
1 716	1 5 3 4	1 2 2 6	1 201	1 107	1.010	92,517
6,592	6,046	5,269	4,843	4,557	4,320	3,932
1,766	1,541	1,266	1,193	1,148	1,090	945
327	299	297	291	444	493	496
2,398	2,093	1,759	1,666	1,736	1,718	1,558
4,194	3,953	3,510	3,177	2,821	2,602	2,374
543	542	538	530	519	510	495
\$ 7.84	\$ 7.30	\$ 6.51	\$ 5.93	\$ 5.36	\$ 5.00	\$ 4.66

Directors



Ray C. A dam^{1,3,4} Chairman, Retired NL Industries, Inc.

Robert E. Allen^{1,3} Chairman of the Board and Chief Executive Officer AT&T Company

Wayne A. Davidson Executive Vice President

William M. Ellinghaus^{1,2,4} President, Retired AT&T Company

Richard M. Furlaud⁴ President

Ellen V. Futter¹ President Barnard College

Richard L. Gelb⁴ Chairman of the Board and Chief Executive Officer

Louis V. Gerstner, Jr.^{2,3,4} Chairman and Chief Executive Officer RJR Nabisco, Inc.

Edgar Haber, M.D. President The Squibb Institute for Medical Research

Charles A. Heimbold, Jr. Executive Vice President

Henry H. Henley, Jr.^{2,3} Chairman and Chief Executive Officer, Retired Cluett, Peabody & Co., Inc., a subsidiary of West Point-Pepperell, Inc.

"Audit Committee 4Committee on Directors and Corporate Governance 4Compensation and Management Development Committee 4Executive Committee William R. Miller⁴ Vice Chairman of the Board

Alexander Rich, M.D.¹ Professor of Biophysics Massachusetts Institute of Technology

James D. Robinson III^{2,3,4} Chairman and Chief Executive Officer American Express Company

Andrew C. Sigler^{1,3} Chairman and Chief Executive Officer Champion International Corporation

Rawleigh Warner, Jr.^{1,2} Chairman and Chief Executive Officer, Retired Mobil Corporation

Corporate Executive Officers

Richard L. Gelb* Chairman of the Board and Chief Executive Officer

Richard M. Furlaud* President

William R. Miller* Vice Chairman

Michael E. Autera* Executive Vice President

Wayne A. Davidson* Executive Vice President

Charles A. Heimbold, Jr.* Executive Vice President

Corporate Staff Senior Officers

Senior Vice Presidents J. Richard Edmondson* William F. Flatley* Marvin H. Koslow* Joseph E. Maroun* Julius L. Pericola Anthony W. Ruggiero,* Controller

Corporate Staff Officers

Vice Presidents Harrison M. Bains, Jr., Treasurer Russel A. Bantham Edward T. Clary Patrick F. Crossman John D. Glover Gilrove A. Griffin, Jr. Anthony R. Hall Rodolphe Hamel* Isaac Jarkovsky Pamela D. Kasa, Secretary George P. Kooluris Margaret E. Maruschak Thomas D. McCann Thomas R. Ostermueller Peter J. Spengler Richard L. Thompson Giulio Vita, Ph.D.

Corporate Operating Group Officers

Ronald A. Ahrens* President, Consumer Products Group, North America

William T. Comer, 2h.D.* President, Bristol-Myers Pharmaceutical Research and Bristol-Myers Squibb Licensing Group

Raymond C. Egan* President, Bristol-Myers U.S. Pharmaceutical, Mead Johnson Worldwide Nutritional and Bristol-Myers Squibb Diagnostic Group

Edgar Haber, M.D.* President, The Squibb Institute for Medical Research

Thomas H. Hughes* President, Bristol-Myers Health Care Group

Abramo Virgilio, Ph.D.* President, Technical Operations, Bristol-Myers Squibb Pharmaceutical Group

Kenneth E. Weg* President, Squibb U.S. and Bristol-Myers Squibb International Pharmaceutical Group Theoretics Agents and Registrars Manufacturers Hanover Trust Company *** 450 West 33rd Street New York, New York 1000) Telephone: (212) 613-7147 (Common and Preferred Stock)

Manufacturers Hanover Trust Company of California 30 California Street — 10th Floor San Francisco, California 94111 Telephone: (415) 954-9500 (Common and Preferred Stock)

New York Stock Exchange Symbol: BMY

Independent Accountants Price Waterhouse 153 East 53rd Street New York, New York 10022 Telephone: (212) 371-2000

Division 800 Numbers Chirel-Consumer Hotine 800-223-5800 R00-447-7262 (for questions in Spanish) Chirel Professional Hotine 800-221-4900 ConvaTec-Professional Service R00-422-8811 Diacket R01-632-4841 Genetic Systems B01-632-4843 Genetic Systems B01-632-4843 Genetic Systems B00-656-TEST Jobs R00-332-2056 Surgitek R00-538-4321 Bristol-Myters Products R00-468-7746 Westened R00-333-0950 Xomed-Treace 800-874-5797 R00-872-9877 (Audiant botline)

Annual Meeting of Stockholders Tuesday, May 1, 1990 9:45 A.M. Hotel duPont 11th and Market Streets Wilmington, Delaware

If you would like a copy of the Company's Form 10-K (1989 annual report filed with the Securities and Exchange Commission), you may obtain it without charge by writing to the Secretary, Bristol-Myers Squibb Company 345 Park Avenue ¹⁰ New York, New York 10154

