

Office of the Dean Graduate College 808 South Wood Street (60612) Box 6998, Chicago, Illinois 60680 (312) 99€-4995

February 14, 1984

Bruce Mallett, Ph.D., Chief Materials Licensing Branch U. S. Nuclear Regulatory Commission

799 Roosevelt Road Glen Ellyn, IL Date of LINE STEPMS

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Radiation Safety Committee and Radioactive Drug Research Committee (RDRC)

Dear Dr. Mallett:

As we discussed during our meeting on January 13, 1984, I am enclosing information about a recent reorganization of our Radiation Safety Committee at the Health Sciences Center campus. Under our previous licenses this committee consisted of a 16 member panel to govern both radiation safety and radioactive drug research. Upon reevaluating the structure and function of that committee (with plans to consolidate the two campuses of the University of Illinois at Chicago), we came to the following conclusions:

- 1. The Radiation Safety Committee has a broader scope to govern safety responsibilities under NRC and the Illinois Dept. of Nuclear Safety (IDNS) licenses and regulations as well as accreditation and other agencies. A list with a description of the qualifications of the members of the Radiation Safety Committee for the Health Sciences Center is attached. When we hire a new Director of Radiation Safety we will send his/her credentials to amend our license and make any updates of the consolidated campus Radiation Safety Committee at the same time.
- 2. The RDRC Committee should be a separate function to govern management of FDA reporting responsibilities. This committee will interact with both the Institutional Review Board (IRB) and the Radiation Safety Committee. RDRC activities will refer only to current Health Sciences Center activities since the former Circle Campus is not involved in human use of radioactive materials. A list with a brief description of their qualifications is enclosed.

Other than this restructuring there are no essential changes in the roles or operations of current conditions of our licenses. When our two Broad Scope License renewals are completed this year, we shall provide detailed descriptions with those documents.

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We very much appreciate your assistance with this extensive project as well as your spirit of cooperation with our University.

Sincerely,

Karen M. Hiiemae, Ph.D., B.D.S. Interim Dean of the Graduate College Associate Vice Chancellor for Research and Graduate Education

KMH:vnd

RADIATION SAFETY COMMITTEE 1984

Dr. B. Taylor Bennett, D.B.M., Ph.D. Director, Biologic Resources Labs

Mr. Murray C. Edge, B.S., ARM Manager of Risk Management 405 AOB - 6/2703

Mr. Stan A. Huber (Ex officio) Acting Director, RSO 339 GH - 6/7429

(Resume on file with NRC under University of Illinois at Chicago license 12-00088-06)

Dr. Edwin Liebner, B. S., M.D. Director, Radiation Therapy C-200 UIH - 6/3630

Dr. Dan G. Pavel, M.D. Director, Nuclear Medicine 2500 UIH - 6/3965

Mr. Joseph Preissig, B. A. (Chairman) Associate Dean of Research 173 CME - 6/5134

Mr. Ray Stephens, B. S. Director, Envorinmental Health & Safety 315 ASB - 6/7411

Ms. Mary Szyszka, R. N. Oncology Unit 4, EEI - 6/8466

Dr. James Vary, A.B., M.S., Ph.D. Professor, Biochemistry 316 CMW - 6/8444



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MEMBERSHIP LIST OF THE RADIOACTIVE DRUG RESEARCH COMMITTEE

Mr. Stan A. Huber, Chairperson Acting Director Radiation Safety Office (6/7429) 339 GH

Dr. Bruce Currie Associate Professor Medicinal Chemistry (6/5279) 553 Pharmacy

Dr. Dan G. Pavel Director Nuclear Medicine (6/3965) 2500 UIH

Mr. Surapol Tantayakom Physical Scientist Department of Radiology (6/3966) 2500 UIH

Ms. Mary Szyszka Clinical Nurse II Medical Oncology/Hematology (6/8466) Unit 4, EEI

CURRICULUM VITAE

Basil Taylor Bennett, D.V.M. Ph.D.

Birthdate: July 20, 1944

Birthplace: Durham, North Carolina

Domestic Status: Married, two children

Home Address: 5610 Childs Ave., Hinsdale, Ill. 60512

Education: 9/62 - 6/63 Vanderbilt University, Nashville, Tennessee

Tennessee

9/63 - 6/65 University of Tennessee, Knoxville,

Tennessee

9/65 - 6/69 Auburn University, School of Veterinary

Medicine, Auburn, Alabama

9/70 - 6/74 University of Illinois, Graduate School

Chicago, Illinois

Degrees: 6/69 D.V.M.; Auburn University

6/74 Ph.D; University of Illinois at

Medical Center, Chicago, Illinois

Licensure: 6/69 Alabama (D.V.M.)

6/69 Tennessee (D.V.M.)

Professional Positions 3/69 - 6/69 Internship; Greene Animal Hospital,

Nashville, Tennessee

9/69 - Residency; Resident Investigator,

RILAMSAT (Research in Laboratory Animal Medicine Surgery and Technology) Hines

V.A. Hospital, Hines, Illinois

6/69 - 9/69 Practice; Greene Animal Hospital,

Nashville, Tennessee and Randall Animal

Hospital, Donelson, Tennessee

5/70 - 9/70 Postdoctoral Educational Appointee;

Argonne National Laboratory.

Argonne, Illinois

Basil Taylor Bennett, D.V.M., Ph.D. Page 2

| Professional | Positions |
|--------------|-----------|
| Continued: | |

1/72 - 12-78 Assistant Chief of RILAMSAT West Side V.A. Hospital Chicago, Illinois

1/74 - 6/74 Research Associate
Biological Resources Laboratory
University of Illinois
Chicago, Illinois

6/74 - Director of Professional Services
Biological Resources Laboratory
University of Illinois
Chicago, Illinois

11/75- Asst. Prof., Pathology A. Lincoln School of Med., U. of Ill.

1/76-9-78 Asst. Administrator
Biologic Resources Lanoratory
University of Illinois
Chicago, Illinois

9-78 Director, Biologic Resources Lab. Univ. of Ill., Chicago, Ill.

Boards: 9-78 Amer. Coll: of Lab. An. Med.

Professional Societies:

American Association of Veterinary Medicine American Association of Laboratory Animal Science Chicago Association of Laboratory Animal Science Phi Zeta (National Honorary Veterinary Society) American Society of Laboratory Animal Practitioners

Honors:

1971 - 1973 Executive Council, Chicago Branch, American Association of Laboratory Animal Science

1974 - Chairman, Regional Examining Board American Association for Laboratory Science

1974 - 1975 President Elect, Chicago Branch American Association for Laboratory Science

1976 - 1977 President, Chicago Branch American Association for Laboratory Science

1977 - President Elect, CB/AALAS

1977 - Board of Trustees, A.A.L.A.S.

1978 - President, CB/AALAS

Basil Taylor Bennett, DVM, Ph.D. page 3

ADDITIONAL PROFESSIONAL ACTIVITIES:

| 11-18-77 | Chancellors Advisory Committee Member |
|----------|---------------------------------------|
| 9-78 | Campus Research Board Member |
| 9-78 | Radiation Safety Committee Member |
| 9-78 | Executive Committee, AALAS |

Papers Presented/Abstracts:

- Pseudomas Septicemia in Leukopenic Dogs; B. Bennett and R. Epstein. <u>lst Annual Chicago- Milwaukee Interbranch AALAS Meeting</u>, North Chicago, Illinois, 1972.
- Psudomonas Septicemia in Leukopenic Dogs; R. Epstein, B. Bennett, F. Waxman, and B. Anderson. <u>International Society for Experimental Hematology</u>, Milwaukee, Wisconsin, 1977.
 J. of Exp. Hem. (1973), 1:82-83.
- Immunological Aspects of Transmissible Venereal Tumor of Canines; R. Epstein and B. Bennett. <u>lst International Workshop</u> on Canine Immunogenetics, Rotterdam, The Netherlands, 1972. Tissue Antigens (1973), 3:169.
- Pseudomonas Infections in Leukopenic Dogs; B. Andersen, F. Waxman, B. Bennett and R. Epstein. <u>Midwest Meeting of the American Federation for Clinical Research</u>, Chicago, Ill, 1972. Clinical Research (1972) 20:749.
- The Immunological Aspects of the Canine Transmissible Venereal Tumor; B. Bennett. <u>Annual Graduate Student Forum</u>, Chicago, Illinois, 1973.
- Immunogenetics of the Canine Transmissible Venereal Tumor;
 B. Fennett. <u>Chicago Association of Immunologists</u>, Chicago, Illinois, 1973.
- 7. The Immunological Aspects of the Canine Transmissible Venereal Tumor; B. Bennett and R. Epstein. 2nd Annual Chicago-Milwaukee Interbranch AALAS Meeting, Milwaukee, Wisconsin, 1973.
- 8. Transplantation Immunology of Canine Venereal Tumor; R. B. Epstein and B. T. Bennett. Midwest Meeting of the American Federation for Clinical Research, Chicago, Illinois, 1972. Clinical Research (1973) 20:876.
- 9. Serum Factors in the Clinical Course of a Canine Tumor System.
 Bennett, B.T., Debelak, K.M., and Epstein, R.B. American Association for Cancer Research, Houston, Texas. March 1974. Proceedings American Assoc. for Cancer Research 15: 123, 1974.
- 10. Evaluation of Canine Hemopoietic Function by Assessment of Colony Forming Cells of the Peripheral Blood. Debelak, K.M., Bennett, B.T., and Epstein, R.B. The Third International Meeting for Experimental Hematology, Houston, Texas. March 1974. Experimental Hematology (In Press).

Basil Taylor Bennett, DVM, Ph.D. page 5

Papers Presented/Abstracts:

- 11. Canine Mixed Lymphocyte Culture: Studies in Families and Tumor Bearing Animals. Hess, A.D., Cunningham, B.C., Bennett, B.T. and Epstein, R.B. The 3rd Annual Chicago-Metropolitan Milwaukee Interbranch Meeting of the American Association of Laboratory Animal Science, Chicago, Illinois. September 1974.
- 12. Transplantation Potential of Fresh and Preserved Peripheral Blood Stem Cells for Hemopoietic Failure in the Dog. Debelak-Fehir, K.M., Bennett, B.T. and Epstein, R.B. The 3rd Annual Chicago-Metropolitan Milwaukee Interbranch Meeting of the American Association of Laboratory Animal Science, Chicago, Illinois. September 1974.
- 13. Segregation of the Clinical Course of Canine Transmissible Venereal Tumor with DL-A Haplotypes in Canine Families. Bennett, B.T., Taylor, Y., Epstein, R.B. The 2nd International Symposium Canine Immunogenetics, Portland, Oregon. December 1974.
- 14. In Vitro Correlates of the In Vivo Course of the Canine Transmissible Venereal Tumor Studied by Mixed Lymphocyte Tumor Cultures. Hess, A.D., Cunningham, B., Bennett, B.T. and Epstein, R.B. The 2nd International Symposium Canine Immunogenetics, Portland, Oregon. December 1974.
 - 15. Halothane Anesthesia in the Laboratory Rabbit. B. T. Bennett, DVM, Ph.D., R. Edwards and J. Hospodar. The 28th Annual Session, American Association of Laboratory Animal Science, Anaheim, California, Oct. 2-7, 1977.
- 16. Radiology, An Essential Diagnostic Aid in a Primate Colony. B. T. Bennett, DVM, Ph.D., F. Beluhan, DVM, and V. Capek, M.D. The 28th Annual Session, American Association of Laboratory Animal Science, Anaheim, California, Oct. 2-7-, 1977.
- 17. Clostridium Enterotoxemia, A Probable Cause of Acute Fatal Typhlitis in Laboratory Rabbits. B.T. Bennett, DVM, Ph.D., L. Cuasay, BS, MPW, F. Beluhan, DVM, and T.J. Welsh, DVM, Ph.D. The 29th Annual Session, American Association for Laboratory Animal Science, New York, N. Y., Sept. 24-29, 1978.
- 18. An Outbreak of Salmonella Typhimurium in a Random Source Guines Pig Colony. T.J. Welsh, DVM, Ph.D.; D.J. Taff, BS, MS,; L.Cuasay, BS, MPH; B. T. Bennett, DVM, Ph.D. The 29th Annual Session, American Association of Laboratory Animal Science, New York, N. Y., Sept. 24-29, 1978.
- 19. Acute Gastric Dilatation: A Microbiological Study of Gastric Contents, Blood and Biscuits. B.T. Bennett, DVM, Ph.D., L. Cuasay, BS, MPH, T.J. Welsh, DVM, Ph.D., and F. Beluhan, DVM. The 30th Annual Session, American Association for Laboratory Animal Science, Atlanta, Georgia, Sept.16-21,1979.

Publications:

- Epstein, R.B., Waxman, F.J., Bennett, B.T., and Andersen, B.R.: Pseudomonas septicemia in neutropenic dogs. Transfusion 14: 51, 1974.
- Epstein, R.B., and Bennett, B.T.: Histocompatibility typing and course of canine venereal tumors transplanted into unmodified random dogs. Cancer Research 34: 788, 1974.
- 3. Hess, A., Cunningham, B., Bennett, B.T., and Epstein, R.B.: In vitro correlates of the in two course of the canine transmissible venereal tumor studied by mixed lymphocyte-tumor cultures. Transplantation Proceedings (in Press).
- 4. Bennett, B.T., Taylor, Y., and Epstein, R.B.: Segregation of the clinical course of transmissible venereal tumor with DL-A haplotypes in calline families. Transplantation Proceedings (in Press).
- 5. Thesis Publication: Bennett, B.T.: Transplantation Immunogenetics of the Canine Transmissible Venereal Tumor. Doctoral Thesis, University of Illinois at the Medical Center, Chicago, Illinois. 1974.
- Bennett, B.T., Debelak-Fehir, K.M., and Epstein, R. B. Tumor Blocking and Inhibitory Serum Factors in the Clinical Course of Canine Venereal Tumor. Cancer Research, 35, 2942-2947, Nov. 1975.
- 7. Albert, E. D., Templeton, J. W., Belofsky, S., Bennett, B. Taylor, et. al. Joint Report of the Second International Workshop on Canine Immunogenetics. Transplantation Proceedings, Vol. VIII, No. 2, pp. 289-309, 1976.
- 8. Thoen, C. O., Beluhan, F., Bennett, B. T., et. al. <u>Mycobacterium Bovis</u>
 Infection in Baboons. Archives of Pathology and Laboratory Medicine,
 Vol. 101, June 1977.
- Epstein, R.B., Bennett, B.T., Beschorner, W.E., Hess, A.D., Sarpel, S. and Zander, A. Immunology and Immunotherapy of the Canine Venereal Tumor. Cancer Immunology, Experimental and Clinical, (Editor- R.G. Crispen). In press.

CURRICULUM VITA of MURRAY C. EDGE 6708 Westmoreland Drive Woodridge, Illinois 60515 Telephone: 312/852-7681 Born 2/23/36, San Antonio, Texas Personal: Married Ann Condray, Paris, Texas One son, James Murray September 1978 to present: Associate Experience: Director of Risk Management, University of Illinois. Responsible for Risk Management functions of University of Illinois at Medical Center; University of Illinois Chicago Circle Campus; University of Illinois Rockford School of Medicine and University of Illinois Peoria School of Medicine. July 1976 to September 1978: Manager, Producer Education & Training, CNA Insurance Co., Chicago, Illinois. Creating, developing and managing insurance educational and sales programs for producers (agents) and company staff. Also responsible for new product development, risk management and consulting for agency management operations. January 1, 1974 to August 1976: Associated Insurance Managers, Anderson, Indiana. Senior Vice President. Responsible for overall operations, agency account and risk management services. April 1973 to December 1973: Regional Sales Manager, Pictorial Publishers, Indianapolis, Indiana. Sales development, designing programs and consulting for insurance industry for educational and developmental programs. April 1970 to April 1973: Manager, Training and Development, Fireman's Fund American Insurance Company, San Francisco, Calif. Manager of corporate technical and professional training operations. Control No. 7 6 3 1 9

Murray C. Edge
Page 2.

Experience (continued)

Education:

April 1967 to April 1970: Director of Claims Training, Fireman's Fund American Insurance Co., San Francisco, Calif.

July 1964 to April 1967: Regional Claims Supervisor, Fireman's Fund American Insurance Co., Dallas, Texas.

October 1960 to July 1964: Supervisor property and general liability claims, Fireman's Fund American Insurance Co., Houston, Texas.

March 1957 to September 1960: Staff Claims Adjuster, Fireman's Fund American Insurance Co., Dallas, Texas.

North Texas State University
B.B.A.- 1957. Major: Marketing;
Minors: Finance and Economics. Honors
graduate.

Southern Methodist University
B.S. - 1957. Major: Business-Pre-Law
(earned in law school).

Southern Methodist University Law School, one year, 1957.

South Texas College of Law, Houston, Texas, two years (no degree).

University of Wisconsin: Management Extension Training Institutes, 1969 and 1970.

University of California Extension: Miscellaneous management and behavioral seminars.

Wharton School, 1977. Scientific Methods of Risk Management.

Insurance Institute of America, Associate in Risk Management - A.R.M., 1979.

Marine Multi-Peril Society of Chicago Insurance Educational Directors Society American Society of Training Directors Indiana Insurance Agents Association

Professional Associations:

- Liebner, E. J. A Case of Lindau's disease simulating anorexia nervosa.
 Am. J. Roentgenology, Radium Therapy and Nuclear Medicine, 1957, 78, 283-288.
- 10. Liebner, E. J. Roentgenographic study of congenital choledochal cysts: pre- and post-operative analysis of five cases. Am. J. Roentg., Radium Thera. & Nuclear Med. 1958, 80, 950-960. Presented at the Annual Meeting of the Association of University Padiologists, University of Minnesota, May 19, 1957.
- 11. Liebner, E. J. Radiologic aid in regional and generalized emphysema of the lungs in infants. Pediatrics, 1959, 24, 1050-1064.
- Liebner, E. J. Hypertrophic hemangioendothelioma of infancy. Am. J.
 Roentg., Radium Thera. & Nuclear Med., 1961, 86, 587-593.
- 13. Liebner, E. J. Actinomycin D. and radiation therapy. Am. J. Rcentg.
 Radium Thera. & Nuclear Med., 1962, 94-105.
- 14. Liebner, E. J. Refrigeration and irradiation. Radiology (Work in Progress Section) 1962.
- 15. Liebner, E. J. Electron Beam Therapy and Refrigeration. Am. J. Roentg. Rad. Therapy & Nuclear Med., 1963, 89, 559-566.
- 16. Liebner, E. J. An appraisal of radioactive therapeutic lymphography.

 Amer. J. of Roentg., 1965, 93, 110-121. Presented at 46 Annual

 Meeting of the American Raduim Society, April 13-16, 1964.
- 17. Liebner, E. J. Radiation therapy for cancer of the uterine cervix.

 Chicago Medicine Bulletin. 1966 (presented at Chicago Medical

 Society Postgraduate Course in Obstetrics and Gynecology, October 14,

 1965). 1966, 69, 905-909.
- 18. Liebner, E. J., Askrow, G., and Vermeulen, G. The value of serial serumelectrophoretic studies dor carcinoma of the cervix. Am. J.

Roentgenol. 1966. (presented at the meeting of Association of University Radiologists, Seattle, Washington, May 13-15, 1965). 96, 864-870.

- 19. Liebner, E. J., Haas, R., and LeRoy, E. Experimental therapeutic intralymphatic studies. Cancer, 1965, 18, 827-842.
- 20. Liebner, E. J., Kirkpstrick, G., and Posenthal, J. M. Treatment of various childhood tumors with Actinomycin D. and X-ray therapy. Illinois State Medical Journal, May, 1962.
- 21 Liebner, E. J., Mengert, W., and Harvey, R. A. Gynecologic Patterns in Lymphography: Diagnosis and therapy in cancer. Postgraduate Medicine, 1964, 35, 405-414.
- 22. Lieoner, E. J., Moos, W. S., Hochhauser, M., and Harvey, R. A. Lowering the skin temperature of the irradiated field. Am. J. Roentg. Rad. Therapy & Nuclear Med., Published November, 1962. Presented at the American Roentgen Ray Society Meeting, Miami Beach, Florida, September, 1961.
- 23. Liebner, E. J., Pretto, J. I., and Kassaraba, W. Posterior Fossa Tumors of Childhood and Adolescence Their diagnostic and radio therapeutic patterns. Radiology 1964, 82, 193-201. Presented 48 Annual R.S.N.A. Meeting, November 25-30, 1962.
- 24. Liebner, E. J., and Siegel, P. Intralymphatic radioactive therapy for pelvic cancer. Amer. J. of Obstetrics and Gyne. 1965, 91, 122-131.
- 25. Potter, B., Aram, H., and Liebner, E. J. Hodgkins Disease. Cutaneous Nodules Preceding Systematization. 1968, 18, 3429-3447.
- 26. Wachowski, T. J., and Liebner, E. J. Malignant Lymphomas chest incolvement. Series No. 5-3, Micro X-ray recorder teaching slides.

- 27. Wachowski, T. J., and Liebner, E. J. Malignant lymphomas nonpulmonary sites. Series No. 9-1, Micro X-ray Recorder teaching slides.
- 28. Gotoff, Samuel P., M.S.; Nancy B. Esterly, M.D., Emalee Gottbrath, M.D., Edwin J. Liebner, M.D., Seyed R. Lajvardi, M.D., "Granulomatous Reaction in an Infant with Combined Immunodeficiency Disease and Short-Limbed Dwarfism", Journal of Pediatrics, 1972, 80:1010-1017.
- 29. Liebner, Edwin , M.D., "Radiological Studies of the Lymphatic System of the Head and Neck". Otolarynfological Clinic of North America, Saunders Company, June 1973.
- 30. Liebner, Edwin, M.D., and Ira Rosenthal, M.D., "Scrial Catecholemines in the Radiation Management of Children with Neuroblastoma". Cancer 32:623-633, 1973.
- 31. Liebner, E.: Embryonal Rhabdomyosarcoma of Head and Neck of Children. Correlation of Stage, Radiation Dose, Local Control, and Survival. Cancer. 37:277-2786, 1976.

BOOK REVIEWS:

- 1. Topical Radiology, Howard Middlemis, M.D., Pitman Press, 1961.
- Roentgen Diagnosis, volume V. Abdomen, 2nd Amer. Ed. H.R. Schniz, et. al.
 Grune & Stratton, 1967. Review of Surgery (Sept-Oct.) V. 25, p.364, 1968.
- 3. Roentgenology of the Spleen and Pancreas, Josef Rosch, M.D., C. Thomas, 1967. Review of Surgery (May-June) V. of 26 No. 3, pp. 220, 1969.

- 32. Liebner, E. J.: Evaluation of perfluorocytlbromide for lymphography in the dog's comparison with Ethiodol. Invest. Radiology. 12:368-372, 1977.
- 33. Mantravadi, R. V. P., Liebner, E. J., Ginde, J. V.: An analysis of factors in the successful management of cancer of tonsillar region. Cancer, 41, 1054-1058, 1978.
- 34. Mantravadi, R. V. P., Liebner, E. J., Ginde, J. V., and Haas, R.:
 Orthogonal xeroradiography for Iodine 125 seed implantation. Radiology, 127, p. 832, 1978.
- 35. Liebner, E. J., Haas, R. E., DeSio, V.: Immobilization of pediatric radiotherapy patients. In press Applied Radiology. To be published Sept.-Oct. 1979.

Work In Progress:

- Submitted Chapter for book: Soft Tissue Tumors and Radiation Therapy.
 Book to be published by Appleton Press, Edited by Dr. Das Gupta.
- Submitted Chapter for book: The Radiation Management of Oral Cancer.
 Book to be published by Mosby & Co. Edited by Dr. Daniel Laskin.

Curriculum Vitae

DAN G. PAVEL, M.D.

Office Address: Section of Nuclear Medicine, University of Illinois

Medical Center, 1740 West Taylor Street, Chicago, IL 60612. Phone: (312) 996-3966

Born: April 19, 1934, Bucarest, Romania. Citizenship: U.S.A.

Present Position: Professor of Radiology/Nuclear Medicine, University of Illinois, College of Medicine; Director of Nuclear Medicine, University of Illinois Medical Center, Chicago

Education:

-Faculty of Medicine, Bucharest, Romania, 1951-1957. M.D. degree (Diploma of Merit)

-Resident, Internal Medicine, Cantacuzino Hospital, Bucharest, 1957-1958.

-Radioactive Isotopes Utilization; 3-month course at the Institute of Atomic Physics, Bucharest, 1965.

-Physics and Mathematics; 6-month evening course at the Faculty of Physics and Mathematics, Bucharest, 1968.

-Rotating Internship, Northwestern University, Passavant Memorial Hospital, Chicago, 1971-1972.

-Residency in Nuclear Medicine: Northwestern University, Northwestern Memorial Hospital, Chicago, 1972-1974. Program director: J.L. Quinn, III, M.D.

-Continuing Education for Physicians in Nuclear Medicine; 4-week program, Nuclear Medicine Institute, Cleveland, 1973.

-Special Summer Program in Physical Aspects of Nuclear Medicine, MIT, Boston 1973.

Positions Held:

- -General Practitioner, Rucar, Romania, 1958-1961.
- -Assistant Professor of Physiology, Faculty of Medicine, Bucharest, 1961-1969.
- -Attending Physician in Nuclear Medicine, V. Roaita Hospital, Bucharest, 1962-1969.
- -Visiting Specialist (3 months), Radioisotope Section, Civil Hospital, Strasbourg, France, 1969.
- -Research Associate in the Research Unit for Radioisotope Uses, Necker Hospital, Paris, France (French government's stipend), 1969-1971.
- -Assistant Professor, University of Illinois College of Medicine, Chicago, 1974-1976.
- -Assistant Director of Nuclear Medicine, University of Illinois Medical Center, Chicago, 1974-1975.
- -Consultant, Nuclear Medicine, West Side Veterans Administration Hospital, 1974-
- -Co-Director of Nuclear Medicine, University of Illinois Medical Center, Chicago, 1975-1977.
- -Associate Professor, University of Illinois College of Medicine, Chicago, 1976-1980.
- -Senior Member of the Graduate College Faculty at the University of Illinois Medical Center, Chicago, 1976-
- -Director of Nuclear Medicine, Univ. of Illinois Medical Center, Chicago, 1977-
- -Consultant, Nuclear Medicine, Skokie Valley Hospital, Skokie, TL, 1977-1979.
- -Consultant, Nuclear Medicine, Columbus Hospital, Chicago, IL, 1978-1983.
- -Professor Radiology/Nuclear Medicine, University of Illinois, College of Medicine, Chicago, 1980-

inois, California Professional Licensur

Professional Board Certi sation: American Board of Nuclear Medicine, 1974

Membership in Professional Societies:

- -Society of Nuclear Medicine (U.S.A.)
- -American College of Nuclear Physicians
- -Radiological Society of North America
- -American Roentgen Ray Society
- -American College of Radiology
- -Illinois Radiological Society
- -Chicago Radiological Society
- -Association of University Radiologists
- -American Medical Association
- -Illinois Medical Society
- -Chicago Medical Society
- -Society of Nuclear Medicine (European)
- -Internaional Society of Nephrology
- -National Kidney Foundation
- -American Federation for Clinical Research
- -IEEE Nuclear and Plasma Sciences Society
- -Chicago Heart Association
- -Nuclear Physicians of Illiois

Major University and Hospital Committee Appointments:

- -Environmental Radiation Safety Committee, 1974-1975
- -Clinical Radiation Safety Committee, 1974-1975
- -Chairman, Radiation Safety Committee, 1975-1977
- -Environmental Health and Safety Committee, 1975-1977
- -Hospital Committee on Procedures and Equipment, 1975-1980
- -Abraham Lincoln School of Medicine Committee on Research, 1975-1979
- -School of Pharmacy Committee for Radiopharmacy Curriculum, 1975-1977
- -Departmental Promotions Committee, 1975-
- -Abraham Lincoln School of Medicine Committee on Instruction, 1977-1978
- -Committee on Hospital Information Processing (CHIP), 1977-1978
- -Radiation Safety Committee, 1977-1979
- -Hospital Computer User Review Committee, 1979-
- -University of Illinois College of Medicine Committee on Research 1979-

Grants:

- 1. 1974-1975 "Computer Processed Tc-99m-DTPA Kidney Time-Activity Cure in the Differential Diagnosis of Renal Transplant Pathologh". PHS General Research Support Grant - \$7,860.
- 2. 1975-1976 "The Renal I-pulse Response Function as a Noninvasive Index of Individual Kidney Function". University of Illinois, Graduate College Research Funds - \$3,800.
- 3. 1981-1982 "Phase Analysis of the Heart-Experimental Study" Bane Estate Grant - \$49,000.

Other Professional Activities:

A. Clinical Evaluations:

- 1. Clinical evaluation of new radiopharmaceuticals under IND:
 - a. 1-131 Iodocholesterol in collaboration with G. D. Searle and Co.
 - b. Tc-99m pyrophosphate in collaboration with Abbott Laboratories
 - c. Tc-99m-Sn-Chloride in collaboration with Abbott Laboratories
 - d. Tc-99m PIPIDA in collaboration with Diagnostic Isotopes, Inc.
- 2. Evaluation of a new type of radiopharmaceutical use for which a personal IND has been granted by the FDA, in 1975, and the NDA approved in 1978: "In vivo labeling of red blood cells with Tc-99m pertechnetate following injection of cold stannous pyrophosphate".

B. Offices Held:

- 1. Chairman, Informatek User's Group, U.S.A. 1978
- 2. Board Member, Nuclear Physicians of Illinois 1978-1981
- Member Nuclear Medicine Advisory Committee, Triton College, Chicago, 1979
- Liaison Officer for the Nuclear Medicine Associates and Technical Affiliates of the Chicago Area, 1979-1981
- Member Board of Governors, Instrumentation Council of The Society of Nuclear Medicine, 1980

C. Miscellaneous:

- Program Director of Symposium: "Noninvasive Regional Wall Motion Evaluation Using Dynamic Radionuclide Cardiac Studies", Chicago, Ill., April, 1980
- D. Invited Speaker: (Separate List)
- E. Continuing Medical Education Lectures: (Separate List)

- intestinale a lipidelor in avitaminoza B. (Experimental studies with radioisotopes on intestinal absorption of lipids in B avitaminosis). Al. Ciplea, Z. Covasneanu, D. Pavel, Ch. Suhaciu, Fiziol. Norm. Patol. (Bucuresti) 1964, 10:249-256.
- 2) Metabolismul vitaminei B 12 in hepatitele cronice, investigat cu ajustorul Co 58 vitaminei B 12. (Vitamin B 12 metabolism in chronic hepatitis investigated with the aid of Co 58 tagged vitamin B 12). T. Spirchez, B. Gheorghescu, E. Merculiev, P. Popescu, D. Pavel, Medicina înterna (Bucharest) 15:1185-1191, 1963.
- Model experimental de studiu al functiei renale, cu ajutorul nefrocistogramei izotopice la sobolan. (Experimental model for the study of renal function by means of radioisotope renogram on rats). D. Pavel, N. Chisiu, A. Oproiu, Symp. Modeles en Biologie, Brasov, Sept. 1964.
- Valoarea diagnostica a nefrogramei izotopice cu Hippuran I¹³¹. (Diagnostic value of the isotope nephrogram with I¹³¹ Hippuran).
 B. Georghescu, D. Pavel, M. Lilis, A. Oproiu, E. Merculiev, M. Popovici, Medicina Interna (Bucharest), 1964, 16/8, p. 941-950.
- Possibilities et limites de l'exploration fonctionnelle renale a l'Hippuran I¹³¹. (Possibilities and limits of the kidney functional exploration with I¹³¹ Hippuran). B. Georghescu, D. Pavel, A. Oproiu, Revue Roumaine de Medecine Interne, 1965; 2/1, 49-63.
- La photoscintigraphie renale en couleur. (Color renal scintigraphy).
 D. Pavel, B. Georghescu, G. Jovin, L. Kari, L. Boicescu,
 G. Orasanu, Revue Roumaine de Medecine Interne 1966, 3/1, 49-54.
- Photoszintigrammen. (Contributions to the evaluation of kidney diseases with the color scan). D. Pavel, B. Georghescu, G. Jovin, III Symposium der Arbeitsgruppe Nuklearmedizin. Dresden 9-11 Juni 1966 Vortrage, p. 154-156.
- Aspects scintigraphiques au cours des hepatites chroniques et des cirrhoses. (Scintigraphic aspects during chronic hepatitis and cirrhosis). B. Georghescu, G. Jovin, D. Pavel, E. Timis, G. Dan, Revue Roumaine de Medecine Interne 1967, 4/2, 139-145.

- 9) Studiul modificarilor functiei renale in ciroze, cu ajutorul renogramei izotopice. (The study of changes of renal function during cirrhosis, by means of the isotope renogram).

 B. Gheorghescu, D. Pavel, G. Jovin. Medicina Interna (Bucharest) 1967, 19/2, 215-220.
- 10). Letter to the Editor: An underestimated irradiation dosis: that produced by Neohydrin 197 Hg. D. Pavel, Lidia Ionita-Teodorascu, The Journal of Nuclear Medicine, 1967, 8:697.
- Demonstration of a certain stage of renal tubular insufficiency
 by means of radioisotope renography. D. Pavel, B. Gheorghescu,
 I. Lupu, H. Herscovici, G. Rotarescu, G. Jovin. In: Proceedings
 of 1-st. Int. Symp.Radioisotopes in the Diagnosis of diseases
 of the kidneys.
 Liege 1967, Excerpta Medica Int. Congress Series no. 178,
 p. 422-427, Amsterdam-New York, 1969.
- Beurteilung der Moglichkeiten des farbigen Nierenphotoszintigramms mittels Beobachtungen an Plexiglasmodellen. (Evaluation of the possibilities of kidney color scintigraphy using plexiglas models).

 D. Pavel, G. Jovin, B. Gheorghescu, Radioisotope in der Lokalisierungsdiagnostik. Okt. 1966, Heidelberg, 4 Jahrestagung Ges. Nucl. Med. F. K. Shattauer Verlag Stuttgart 1967, p. 81-84.
- Le nephrogramme isotopique au cours de certaines formes d'insuffi sance tubulaire renale. Essai d'interpretation physiopathologique.

 (The isotope renogram during some types of renal tubular insufficiency. Attempt of pathophysiologic interpretation). D. Pavel, (Paris)

 B. Gheorghescu, G. Jovin, F. Rotarescu, J. Urol. Nephrol. 1968, 74:645-654.
- Interpretation of scintigraphic changes during chronic hepatitis and cirrhosis of the liver. B. Gheorghescu, G. Jovin, D. Pavel, C. Hoanca, L. Marculescu, J. Suseanu, T. Sparchez in: "Medical Radioisotope Scintigraphy," Vol. II, p. 517-532, 1.A.E.A., Vienna, 1968.
 - 15) Etude de l'irradiation renale au cours de l'exploration scintigraphique a la neohydrine 197 Hg. (Study of kidney irradiation during scintigraphic explorations with Neohydrine 197-Hg.). D. Pavel, Lidia Ionita-Teodorascu, J. Radiol. Electrol. (Paris), 1969, 50:43-46.

- Some aspects of radioisotope scintiscanning in normal and pathologic kidney. D. Pavel. Rev. Roum. Med. Int. (Bucharest), 1968, 5:265-281.
- Cercetari asupra dinami cii imbunatatirii functiilor renale dupa insuficienta renala acuta. (Researches on the dynamic of renal functions improvement after acute renal insufficiency).

 T. Tiegerman, V. Pompilian, D. Pavel, L. Grimberg, C. Petrescu, T. Tiegerman, V. Pompilian, D. Pavel, L. Grimberg, C. Petrescu, R. Erena, Medicina Interna (Bucharest). 1969, 21:1449-1462.
- Interpretation of radioisotope renogram changes during acute toxic renal insufficiency due to oxalic acid. An experimental study. D. Pavel, in: W. Horst "Frontiers of Nuclear Medicine," Springer Verlag, Berlin, 1971, p. 184-194.
- Renography in Patients during the polyuric stage of acute renal failure. D. Pavel, J. Chanard in: M.D. Blaufox and J. -L. Funch-Brentano "Radionuclides in Nephrology" (International Symposium) Grune & Stratton, Inc. N.Y. 1972, p. 351-359.
- Determination of statistical precision of tritium d.p.m.

 in dual labelled samples with variable isotope ratios and
 quenching. J. Assailly, C. Bader, J. -L. Funck-Brentanc,
 quenching. in: "Liquid Scintillation Counting" vol. 2,
 D. Pavel: in: "Liquid Scintillation Counting" vol. 2,
 p. 293-301 (Preceedings of Int. S/mp., Brighton 1971)
 Heyden & Son Ltd., London 1972.
- Dynamics of quenching by plasma from patients with various pathological conditions. J. Assailly, C. Bader, J.-L. Funck-pathological conditions. Thiquid Scintillation Counting Brentano, D. Pavel: in: "Liquid Scintillation Counting" vol 2, p.223-231 (Proceedings of Int. Symp., Brighton 1971) Heyden & Son Ltd., London 1972.
- Functional evaluation of isolated kidneys preserved in view of transplantation. Simultaneous detection of 1311 Hippuran and 1251 Hypaque Curves. D. Pavel, H. Kreis, J. Assailly, and 1251 Hyp
 - 23) Precision statistique des comptages sur des passeurs automatiques d'enchantillons radioactifs. Construction d'abaques sur les fonctions precompte-pretemps. (Statistical accuracy of the countings obtained on automatic counters for radioactive samples). J. Assailly, C. Bader, D. Pavel, J. Chanard, J.-L. Funck-Brentano. Ann. Phys. Bio. Med. (Paris) 1972, 4:187-195.
 - Interet pronostique de nephrogramme isotopique a la reprise de diurese des insuffisances renales aigues. (Prognostic use of the isotope renogram during the recovery from acute renal failure). J. Chanard, D. Kleinknecht, D. Pavel, renal failure). J.-L. Funck-Brentano. Ann. Med. Interne, M. Regensberg, J.-L. Funck-Brentano. Ann. Med. Interne, (Paris), 1972, 12:1079-1083.

- 25) Functional evaluation of the experimental obstructive uropathy by simultaneous detection of 131-I Hippuran and 99mTc-DTPA. D. Pavel, M. Resnick, D. Walvoord and J. Quinn. Clinical Research, 1973, 21:895 (Abstract).
- Diagnosis of malignant pleural effusion by scanning, using 99mTc labelled bone seeking agents. D.G. Pavel, B. Ghorashi, J.L. Quinn, Clinical Research, 1974, 22:494 (Abstract).
- Multilateral evaluation of renal transplants with radionuclides.
 D.G. Pavel, B.D. Kahan, J.L. Quinn, J.J. Bergan, B.R. Westerman.
 In "Dynamic studies with radioisotopes in medicine 1974"
 (IAEA Symposium, Knoxville, U.S.A., 1974) IAEA, Vienna,
 Vol. I, p. 307-327, 1975.
- 28) A method for improving the accuracy and shortening the generation time of a renogram curve with the scintillation camera. D.G. Pavel, B.R. Westerman, J.J. Conway. J. Nuclear Med. Technology, 1975, 3:40-42.
- Diagnosis of pulmonary arterio-venous (A-V) malformation using Tc-99m macroaggregated albumin (MAA). D.G. Pavel, S. Levitsky, V.N. Patterson, E. Magnus. Clinical Research 1975, 23:350-A. (Abstract).
- Computer processed 99mTc-DTPA studies in the evaluation of kidney transplants. D.G. Pavel, B.R. Westerman, J.J. Bergan, B.D. Kahan. Surgery, 1975, 79:152-160.
- Right atrial myxoma with right-tc-left shunting and mitral valve prolapse. S.N. Myers, J.E. Shapiro, V. Baressi, A.A. DeBoer, D.G. Pavel, D.R. Gracey, D.E. Shure, J.H. Buehler. Am. J. Medicine. 62:308-314, 1977.
- 32) A practical approach to the evaluation of renal transplants with radionuclides. D.G. Pavel, Applied Radiol., 1976, 5:148-153.
- 33) Color display of radionuclide studies. D.G. Pavel, E. Byrom, A.M. Zimmer. Invest. Radiol. 11:414, 1976 (abstract).
- 34) In-vivo Tc-99m red blood cell labeling: A new approach to blood pool visualization. D.G. Pavel, A.M. Zimmer, V.N. Patterson. J. Nucl. Med., 1977, 18:305-308.
- Noninvasive experimental determination of the kidney filtration fraction by means of a dual isotope technique. J. Assailly, D. Pavel, C. Bader, J. Chanard, T. Ryerson, J.-L. Funck-Brentano. J. Nucl. Med., 1977, 18:684-691.

- Stabilized Tc-99m-Sn-diphosphonate kits. A. Michael Zimmer and Dan G. Pavel, J. Nucl. Med. Technology, 5:54-55, 1977.
- Rapid miniaturized chromatographic quality control procedures for Tc-99m radiopharmaceuticals. A.M. Zimmer and D.G. Pavel, J. Nucl. Med., 18:1230-1233, 1977.
- Computer evaluation of the quality of different modalities of background subtraction during gamma camera kidney studies. D.G. Pavel and E. Byrom. Proceedings of the Seventh Symposium of Computer Programs and Technology in Nuclear Medicine, Atlanta, Goergia, E.R.D.A. Technical Information Center, p. 67-75, 1977.
- 39) Diagnosis of urine extravasation after renal transplantation. D.G. Spigos, W. Tan, D. Pavel, et.al. Am. J. Roentgenol., 129:409-413, 1977.
- Evaluation of commercial Tc-99m-MAA Radiopharmaceuticals. K. Baron,
 B. Clay, A.M. Zimmer, D.G. Pavel. J. Nucl. Med. Technology, 5:109, 1977
 (abstr.).
- Evaluation of left ventricular function by radionuclide techniques using Anger type cameras and an optimized protocol. D.G. Pavel, R.J. Pietras, E. Byrom, B. Ayres, J.A. Bianco, C. Kanakis, in: Gasteiner Int. Symp. "Radioaktive Isotopes in Klinik und Forschung", R. Höfer, ed., Vol. 13, part 1, p. 209-219, published by H. Egerman, Vienna, 1978.
- 42) Improved computer definition of regions of interest by using a double cursor method. E. Byrom, D.G. Pavel. J. Nucl. Med., 19:959-960, 1978.
- Rapid miniaturized chromatographic quality control procedures for iodinated radiopharmaceuticals. A.M. Zimmer and D.G. Pavel. Am. J. Hosp. Pharm., 35:426-428, 1978.
- In vivo labeling of red blood cells with pertechnetate in hypothyroidism.

 D.G. Pavel, A.M. Zimmer. J. Nucl. Med., 19:332-333, 1978 (letter to the editor).
- Multifaceted evaluation of left ventricular function by the first transit technique using Anger type cameras and an optimized protocal: correlation with biplane roentgen anyiography. D.G. Pavel, E. Byrom, B. Ayres, R.J. Pietras, J.A. Bianco, C. Kanakis. Proceedings of Symp. "Nuclear Cardiology: Selected Computer Aspects", Atlanta, Georgia, 1978, p. 129-138, publisher: Society of Nuclear Medicine, Inc., New York, 1978.
- 46) In vivo labeling of red cells with 99mTc pertechnetate. D.G. Pavel, A.M. Zimmer. J. Nucl. Med., 19:972, 1978 (letter to the editor).
- Why first transit? D.G. Pavel, E. Byrom, S. Swiryn, B. Ayres. J. Nucl. Med., 19:704, 1978 (abstr .).
- 48) Technical Parameters Associated with Miniaturized Chromatography Systems.
 R.A. Taukulis, A.M. Zimmer, D.G. Pavel and B. Patel. J. Nucl. Med.,
 Technology 7:19-21, 1979.

- 49) Technical parameters involved in in-vivo red blood cell labeling with Tc-99m.

 A. M. Zimmer, D.G. Pavel, S. Karesh. Nucl.-Medizin (Stuttgart) 18:241-245, 1979.
- 50) Improved high framing rate time-activity curves in first transit cardiac studies: advantages of a bilateral collimator. E. Byrom, D.G. Pavel, J. Nucl. Med. 19:670, 1978 (abstr.)
- Cardiovascular Effects of Delta 9-Tetrahydrocannabinol (Cannabis) Utilizing
 Gated Radionuclide Study. C. Kanakis, D.G. Pavel, A. Cubria, S. Swiryn,
 B. Ayres, and K. Rosen, Clinical Research 27:234-A, 1979.
- 52) Iodohippurate I-123 Renography (I-123 OIH): A Cooperative Clinical Study.

 A Khentigan, T.G. Rudd, I. R. Bennett, P.M. Weber, R.E. Coleman, D.G. Pavel, and J.J. Conway. J. Nucl. Med. 20:619, 1979 (abstr.).
- 53) Technical Advantages and problems in the Use of a Bilateral Collimator For First Transit Cardiac Studies. R.G. Balon, B.A. Patel, D.G. Pavel, J. Nucl. Med. Technology 7:114, 1979. (abstr.).
- Effect Of Circulating Aluminum on the Biodistribution of Tc-99m-Sn-Diphosphonate in Rats. G. Jaresko, A.M. Zimmer, D.G. Pavel, S. Spies. J. Nucl. Med. Technology 8:160-161, 1980.
- 55) Ventricular Phase Analysis of Radionuclide Gated Studies. D. Pavel, S. Swiryn, W. Lam, E. Byrom, A. Sheikh, K. Rosen. Amer. J. Cardiol. 45:398, 1980 (abstr.).
- Patterns of Phase Distribution Detected by Fourier Analysis of Gated Studies in Patients with Abnormal Electrical Activation of the Heart. D.G. Pavel, S. Swiryn, E. Byrom, C. Meyer-Pavel, K. Rosen. Clinical Nucl. Med. 5:S32, September, 1980.
- Phase Analysis of Gated Cardiac Studies. D.G. Pavel, E. Byrom, C. Meyer-Pavel, S. Swiryn, W. Lam. R. Pietras. Clinical Nucl. Med., 5:S32, September, 1980.
- 58) Rotating Slant Hole Tomography for Thallium-201 Imaging. C.M. Pavel, E. Byrom, R. Balon, D. Pavel. Clinical Nucl. Med., 5:S67, September, 1980.
- A Simple Rapid Method for Estimating Left Ventricular Volumes from Gated Radionuclide Ventriculography. C.M. Pavel, S.M. Karesh, R. Pietras, E. Byrom, D. G. Pavel. Clinical Research, April, 1981 (abstr.).
- Normal and Abnormal Electrical Activation of the Heart: Imaging Patterns
 Obtained by Phase Analysis of Equilibrium Cardiac Studies. D.G. Pavel,
 E. Byrom, S. Swiryn, C.M. Pavel, K. Rosen. In: Medical Radionuclide
 Imaging, Vol. II pp 253-261, Publ: Int. Atomic Energy Agency,
 Vienna/Austria, 1981.
- Phase Mapping of Radionuclide Gated Studies: Right Bundle Branch Block.

 B. Handler, S. Swiryn, D. Pavel, et al. Clin. Research, April, 1981 (abstr.).
- Wisualization of Atrial Myocardium with Thallium-201. A. Sheikh, S. Swiryn, D.G. Pavel. Clinical Nucl. Med. 1981 6:34-37, 1981.

- 63) Radionuclide Regurgitant Index Value and Limitations W. Lam, D. Pavel, E. Byrom, A. Sheikh, D. Best, K. Rosen. Amer. J. Cardiol. 47:292-298, 1981.
- Assessment of Left Ventricular Function by Radionuclide Angiography During
 Induced Supraventricular Tachycardia. S. Swiryn, D. Pavel, E. Byrom,
 C. Wyndham, R. Pietras, R. Bauernfeind, K. Rosen. Amer. J. Cardiol.,
 47:555-561, 1981.
- 65) Cardiac Evaluation using Nuclear Medicine Procedures. D.G. Pavel.
 In: "Diagnosis and Treatment of Brain Ischmia". Chapter 17. Editor:
 A.L. Carney, Publ.: Raven Press, New York, 1981.
- Phase Images of Gated Cardiac Studies: A Standard Evaluation Procedure.

 E. Byrom, D.G. Pavel, et al. In: "Functional Mapping of Organ Systems and other computer topics". P. 129-138. Editor: P.D. Esser, Publ.: Society of Nuclear Medicine, New York, 1981.
- 67) Tricuspid Insufficiency Detected by Equilibrium Gated Radionuclide Study.
 B. Handler, D.G. Pavel, et al. Clinical Nucl. Med., 6:485-488,1981.
- Sequential Regional Phase Mapping of Radionuclide Gated Biventriculograms In Patients with Left Bundle Branck Block. S. Swiryn, D. Pavel, et al. Amer. Heart J. 102: 1000-1010, 1981.
- Normal and Abnormal Electrical Activation of the Heart. Pavel D, Byrom E, Swiryn S, et al. In: Medical Radionuclide Imaging. Vienna, IAEA, 1981, Vol II, pp. 253-261.
- 70) Incidence and Consequences of Breast Artifacts in Radionuclide Cardiac Studies. C.M. Pavel, J.K. Clark, D.G. Pavel. Clinical Nucl. Med. P. 53-57, Feb. 1982.
- 71) Sequential Regional Phase Mapping of Radionuclide Cated Biventriculograms in Patients With Sustained Ventricular Tachycardia: Close Correlation With Electrophysiologic Characteristics. S. Swiryn, D. Pavel, et al. Amer. Heart J. Vol 103, No. 3, pp. 319-332, March 1982.
- 72) The Diagnostic Relevance of an Integrated approach of Gated Cardiac Studies. D.G. Pavel. In: Proceedings of 19th International Annual Meeting of the Society of Nuclear Medicine-European, Berne Switzerland, Sept. 1981, Editor: H. Rosler, Publ.: F.K. Schattauer, Stuttgart-New York, pp. 97-103, 1982.
- Rotating Slant Hole Tomography of the Hip. C.M. Pavel, D.G. Pavel, D. Mess, et al. In: Proceedings of 19th International Annual Meeting of the Society of Nuclear Medicine-Europe, Berne Switzerland, Sept. 1981. Editor: H. Rosler, Publ.: F.K. Schattauer, Stuttgart-New York, pp. 947-950, 1982.
- 74) Demonstration of Persistent Left Superior Vern Cava by Radionuclide Angiography. A.I. Sheikh, D.G. Pavel, K.M. Rosen. Cardiovascular Reviews and Reports, Vol. 3, #11, pp. 1637-1640, Nov. 1982.

- 75) A New Method for Radiolabeling Gelfoam Particles with 99mTc. S.M. Karesh, D.G. Spigos, S.W. Tan, D.G. Pavel. Int. J. Appl. Radiat. Isot., Vol. 33, pp. 1415-1421, 1982.
- 76) Equilibrium Radionuclide Gated Angiography in Patients with Tricuspid Insufficiency. B. Handler, D.G. Pavel, et al. Amer. J. Cardiol. 51:305-310, 1983.
- 77) Detection and Q-antification of Regional Wall Motion Abnormalities Using Phase Analysis of Equilibrium Gated Cardiac Studies. D. Pavel, E. Byrom, W. Lam, C.M. Pavel, S. Swiryn, R. Pietras. Clinical Nucl. Med. 8:315-321, July, 1983.
- 78) To what extent can regional wall motion abnormalities be detected and quantified by phase analysis: D.G.Pavel, et al. In: Proceedings of the VII Int. Conference on Information Processing in Medical Imaging, Stanford, pp. 193-207, June, 1981.
- 79) The Pericardial Effusion Pattern on Phase Images. C.M. Pavel, J. Kahn, S. Rich, P. Gonzalez, S. Turner, D.G. Pavel. Clinical Nucl. Med., 1983 (In Press).
- Adjuvant Radiotherapy to Liver Using Intraarterial P-32 Chromic Phosphate in High Risk Colon and Rectal Cancer Patients (Completely Resected).

 R. Mantravadi, D. Spigos, S. Karesh, D. Pavel, et al. Radiology, 1983.

 Accepted for publication in August or September, 1983.
- 81) Intra-arterial P-32 Chromic Phosphate for Prevention of Postoperative Liver Metastases in High-Risk Colorectal Cancer Patients.

 Mantravadi, R.V.P., Spigos, D.G., Karesh, S.M. Pavel, D.G., et al. Radiology 148:555-559, August, 1983.
- 82) Use of Rotating Slant Hole Tomography in Avascular Necrosis of the Femoral Read. D. Mess, C.M. Pavel, D.G. Pavel, R. Barmada (In Press).
- 83) Quo Vadis Phase Analysis. D. G. Pavel and P. A. Briandet. Clinical Nucl. Med. 8:564-575, 1983.
- The normal heart: characteristic patterns obtained by various functional images. D. G. Pavel, P. Briandet, R. B. Fang, et al. In: F. Deconinck, Information Processing in Medical Imaging, 8th International Conference: The Hauge, Martinus Nijhoff publ. BV, 1983 (in press).

Books:

Scintigrafia Clinica (Clinical Scintigraphy). T. Sparchez, B. Gheorghescu,
 B. Jovin, D. Pavel. Editura Medicala, Bucarest, 1968, 196 pages.

Exhibits:

- 1. Improved Diagnosis of Post Renal Transplant Collecting System Complications.
 D.G. Pavel, et.al. 22nd Annual Meeting, Soc. of Nuclear Medicine,
 Philadelphia, June, 1975.
- In-Vivo Red Blood Cell Labeling Using Consecutive Injections of Stannous
 Pyrophosphate and Tc-99m Pertechnetate. D.G. Pavel, A.M. Zimmer,
 V.N. Patterson. 23rd Annual Meeting, Soc. Nuclear Medicine, Dallas, June 1976.
- 3. The role or Roentgenology, Nuclear Medicine, and Ultrasound in the Diagnosis of Urine Extravasation Following Renal Transplantation. D.G. Spigos, W. Tan, D.G. Pavel, et.al. 77th Annual Meeting, American Roentgen Ray Society, Washington, September, 1976.
- 4. A Method for Increasing the Accuracy of the Radionuclide Measurements of the Ejection Fraction and Left Ventricular Volume Curve. D.G. Pavel, E. Byrom, J.A. Bianco, A.M. Zimmer. 24th Annual Meeting, Soc. Nuclear Medicine, Chicago, June, 1977.
- 5. Technical Parameters Involved in the In-Vivo Red Blood Cell Labeling Technique A.M. Zimmer and D.G. Pavel. 24th Annual Meeting, Soc. Nuclear Medicine, Chicago, June, 1977.
- 6. Effect of Plasma Al⁺¹ on the Biodistribution of Bone Seeking Radiopharmaceutical G.S. Jaresko, A.M. Zimmer, and D.G. Pavel. 12th Annual Meeting, Amer. Soc. of Hosp. Pharmacists, Atlanta, December, 1977.
- Automation and Operator Independent Data Processing of Cardiae Studies. M.L.
 Goris, H.D. Fawcett, D.G. Pavel, E. Byrom, M. Yester, J. Jengo, T.R. Nelson,
 P.A. Briandet. 26th Annual Meeting. Soc. Nuclear Medicine, Atlanta, June, 1979.
- Therapeutic Splenic Embolization. D.G. Spigos, W.S. Tan, M. Mozes,
 I. Iossiphides, D. Pavel, O. Jonasson, V. Capek, Radiol. Soc. of North America, November, 1979.
- Quantification of Ventricular Dysfunction Using Phase Analysis of Gated Studies.
 D. Pavel, S. Swiryn, W. Lam, E. Byrom, R. Pietras, K. Rosen. American College of Cardiology, Houston, Texas, March, 1980.
- 10. Quantification of Regional Wall Motion Abnormalities Detected by Phase
 Analysis of Gated Cardiac Studies. D. Pavel, R. Pietras, W. Lam, E. Byrom,
 C. Meyer-Pavel, S. Swiryn. Society of Nuclear Medicine, Detroit, Michigan,
 June, 1980. Certificate of Award: Honorable Mention.
- 11. Why Phase Analysis? D. Pavel, E. Byrom, C.M. Pavel, et al. Society of Nuclear Medicine, Las Vegas, June, 1981. Certificate of Award: 3rd prize.

Audio-visuals

 First Transit Radionuclide Cardiac Study. D.G. Pavel, R. Balon. 40 min. cassette, 32 slides. Recorded by Photocom Corp. and SNM Central Chapter, 1979.

Presentations (not yet published):

- 1. The renal impulse response function. T. Ryerson, D.G. Pavel. Soc. Nucl. Med., Central Chapter Meeting, Chicago, March, 1975.
- Improved diagnosis of post-renal transplant collecting system abnormalities by radionuclide studies. D.G. Pavel, O.M. Jonasson, O. Andersen, V.N. Patterson, B. D. Kahan. 22nd Annual Meeting, Soc. Nucl. Med., Philadelphia, June, 1975.
- 3. Caveat emptor (Let the buyer beware). D.G. Pavel, J.L. Chang. Soc. Nucl. Med., Central Chapter Meeting, Southfield, March, 1976.
- 4. The combined use of roentgen angiography and radioisotope (computer processed) angiography in the diagnosis of great vessel diseases. D.G. Pavel, D.G. Spigos, E. Byrom, V. Capek. 77th Annual Meeting, American Roentgen Ray Society, Washington, September, 1976.
- Data processing in nuclear medicine: Renal applications. D.G. Pavel. Central Chapter of the Society of Nuclear Medicine, Madison, Wisconsin, October, 1976.
- Radionuclide studies of the kidney State of the art. D. G. Pavel, T. W.
 Ryerson, Society of Nuclear Medicine, Central Chapter, Chicago, February, 1977.
- 7. Evaluation of liver scans obtained with Tc-99m-stannous chloride instant kits.

 D.G. Pavel, A.M. Zimmer, and B.R. Lim. Soc. of Nucl. Med., Central Chapter,

 Indianapolis, March, 1978.
- In vivo labeling of RBC: Practical questions. D.G. Pavel, A.M. Zimmer.
 2nd Int. Congress of World Federation of Nuclear Medicine & Biology.
- The RBC labeling capability of different commercial bone seeking preparations.
 A.M. Zimmer, D.G. Pavel. 2nd Int. Congress of World Federation of Nuclear Medicine & Biology, Washington, September, 1978.
- 10. The clinical and economic indications for first transit radionuclide cardiac studies. D.G. Pavel, E. Byrom, S. Swiryn, B. Ayres. 2nd Int. Congress of World Federation of Nuclear Medicine & Biology, Washington, September, 1978.
- Improved software for computer processing of radionuclide cardiac studies.
 E. Byrom, D.G. Pavel. 2nd Int. Congress of World Federation of Nuclear Medicine & Biology, Washington, September, 1978.
- 12. Renal findings in sickle cell disease incidental to Tc-99m diphosphonate bone imaging. B.R. Lim, D.G. Pavel. 2nd Int. Congress of World Federation of Nuclear Medicine & Biology, Washington, September, 1978.

Presentations (not yet published) (cont.)

- Operator intervention, automation, and quality control in radionuclide ardiac studies performed on Anger type cameras. D.G. Pavel, E. Byrom, A. Cubria, A. Sukerkar. Soc. of Nucl. Med., Southeastern Chapter, Birmingham, Alabama, November, 1978.
- 14. Short and long-term followup of Gelfoam (GF) injected for therapeutic embolization after labeling with various radionuclides. S. Karesh, D. Pavel, D. Spigos, I. Iossifides. 28th Ann. Meeting Soc. of Nucl. Med., Las Vegas, June, 1981.
- 15. Correlation of phase image patterns with various cardiac activativation patterns induced by pacing. E. Byrom, S. Swiryn, D. Pavel, C.M. Pavel, B. Handler, K. Rosen. 28th Ann. Meeting Soc. of Nucl. Med., Las Vegas, June 1981.
- Myocardial Infarction Quantification by Phase Analysis of Radionuclide Gated Studies. D.G. Pavel, E. Byrom, C.M. Pavel. In Proceedings:
 "Noninvasive Methods in Ischemic Heart Disease". Nancy, France,
 September, 1981, Editors: G. Faivre, A. Bertrand
- 17. Factor enalysis: its use in separating abnormal Kinetics of superimposed anatomical structures during gated cardiac studies. Proceedings 21st Annual Meeting, Soc. Nucl. Med. Europe, 1983.

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Responsible for administrative affairs of the College. This includes financial planning and managing of State appropriations, research funding, faculty practice plans, gifts and grants.

1967-1973 - Deputy Director, Program Planning and - Evaluation
Bureau of Health Manpower
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Responsible for planning Federal programs to improve quality and increase numbers of physicians, dentists, nurses and other health professionals. Also managed a National program of cost studies in medical schools.

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Formulated budgets for Public Health Service programs such as chronic and communicable diseases, community health, dental and nursing education, and construction of hospitals and medical, dental and nursing schools.

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Department of Health, Education and
Welfare

Responsible for all appropriations made directly to the Secretary of Health, Education and Welfare and for non-recurring Government-wide health, education and welfare programs, such as President's Councils on Mental Retardation, Juvenile Delinquency and Youth Crime, Children and Youth, Aging and for White House Conferences funded by DHEW. Reviewed Medicare and Social Security budgets for the Secretary.

1961-1962 - Manager, Working Capital Fund
Office of the Secretary
Department of Health, Education and
Welfare

Managed data processing, contracting and procurement, printing, physical plant and other service activities for the Office of the Secretary.

1955-1961 - Supervisory Budget Examiner Social Security Administration

Budget officer for Federal Social Security district offices, payment centers and field operations.

SELECTED PROJECTS:

Survey of U.S. Office of Education data collection, for Secretary, DHEW, 1961

Staff for "A Special Program to Increase the Number of Physicians and Dentists", NIH, 1969

Report to Congress on "The Need for Emergency Financial Assistance to Medical and Dental Schools", for Secretary, DHEW, 1971

Technical Task Force on Allocation of College of Medicine Budget, University of Illinois, 1982

PROFESSIONAL ACTIVITIES:

Chairman, Professional Development Committee, Group on Business Affairs, Association of American Medical Colleges, 1973-1975.

Faculty, Management Advancement Program, AAMC, 1981

Chairman, Midwest-Great Plains, Group on Business Affairs, AAMC, 1981-82.

HONORS AND AWARDS:

Graduated with honors, University of Illinois at Urbana

Superior Performance Award, Department of Health, Education and Welfare

Outstanding Service Award, Association of American Medical Colleges

CURRICULUM VITAE

NAME:

Raymond S. Stephens

ADDRESS:

7850 Chestnut Avenue, Hammond, Indiana 46324

BORN:

January 27, 1928, Chicago, Illinois

MARITAL STATUS:

Married, five children

Bachelor of Science, Purdue University, 1949. Registered Medical Technologist (ASCP), St. Elizabeth Hospital, School of Medical Technology, 1951. Various courses in Industrial Safety Management and Fire Protection at Indiana University, Purdue University, and Illinois Institute of Technology.

EMPLOYMENT:

1951-1953: Medical Technologist, Dr. J.Pilot, Hammond, Indiana. 1953-1965: Director of Safety and First Aid, Standard Forgings

Corp., East Chicago, Indiana.

1965-Present: Safety Officer, Safety Coordinator, Director, Environmental Health and Safety Office, University of Illinois at the Medical Center, Chicago, Illinois.

PROFESSIONAL SOCIETIES:

American Society of Safety Engineers (President, Greater Chicago Chapter).

National Safety Council (Campus Safety Association, Recording Secretary).

National Fire Protection Association.

Certified Safety Professional.

Veterans of Safety.

SPECIAL INTERESTS:

Campus Safety Laboratory Safety Hospital Safety

LANGUAGE PROFICIENCY: English

PRESENT EMPLOYMENT:

As Director of Environmental Health and Safety Office, his responsibility is to promote and maintain a program of accident and illness prevention, and fire safety on the campus.

He coordinates the efforts of the various colleges and departments in meeting their obligations to comply with applicable standards of safe practice.

He interprets standards and assesses the performance of the University in compliance with them.

He reports to the Vice Chancellor for Health Services, and is assisted by 3 Safety Officers, a Secretary, and a Clerk Typist.

CURRICULUM VITA

Mary Ann Ricci Szyszka

Birth: May 23, 1941 Chicago, Illinois

Education: Bachelor of Science in Nursing
University of Illinois Medical Center,
Chicago, Illinois
1979

Professional Experience; Staff Nurse I, Gynecology,
University of Illinois Hospital, 7/79 - 11/80.
Staff Nurse I, Medical OncologyHematology, University of Illinois Hospital,
11/80 - 8/81.
Staff Nurse II, Medical OncologyHematology, University of Illinois Hospital,
8/81 to present.

Professional Organizations: Illinois Nurses' Association Oncology Nurses' Association

Professional Responsibilities: Nursing Internship Moderator, 1981-1982 - Subject: "Death and Dying" One Continuing Education Credit offered Licensed Practical Nurse Medication Preceptor 1980 to present

> Seminar Moderator - University of Illinois Crisis Intervention Convention - 1982 - Subject: "Death and Dying".

Professional Awards: University of Illinois recognition for outstanding contributions to the Nursing Profession, March 12, 1982.

Illinois Nurses Association, District 21, Outstanding Staff Nurse, September 29, 1982.

Continuing Education Conferences: Critical Care for Nurses, 1981, University of Illinois, Hospital, 60 contact hours.

Chemotherapy for Nurses, Carle Clinic, Urbana, Illinois, 1982, 20 contact hours.

CURRICULUM VITAE

NAME:

JAMES CORYDON VARY

BORN:

February 24, 1939; Flint, Michigan

MARITAL STATUS:

Married, 2 children

PRESENT POSITION:

Professor, Department of Biological Chemistry University of Illinois at the Medical Center, 1853 West Polk Street, Chicago, Illinois 60612

(312) 996-8444

HOME ADDRESS:

315 West Prairie, Wheaton, Illinois 60187

EDUCATION:

1957-61 Brown University, Providence, R.I., B.A.

(Biology), 1961

1961-64 University of Wisconsin, Madison, M.S. (Bact.),

1964

1964-67 University of Wisconsin, Madison, Ph.D (Bact.),

1967

PREVIOUS POSITIONS:

Associate Professor, 1974-1979, Dept. of Biological Chemistry, University of Illinois at the Medical Center, Chgo., Ill.

Assistant Professor, 1969-1974, Dept. of Biological Chemistry, University of Illinois at the Medical Center, Chgo., Ill.

Postdoctoral Fellow, 1967-1969, Dept. of Biochemistry, Stanford University Medical Center, Stanford, California 94305

Assistant Instructor, June-August, 1967, Physiology Course, Marine Biological Laboratory, Woods Hole, Massachusetts

PROFESSIONAL SOCIETIES:

American Society of Biological Chemists

American Society for Microbiology

Sigma Xi

Federation of American Scientists

American Association for the Advancement of

Science

MILITARY SERVICE:

None

HONORS:

TEACHING EXPERIENCE:

GRANT SUPPORT: National

Institutional

NIH Postdoctoral Fellow, 1967-1969.
Professor of the Year Award, College of
Dentistry, Class of 1975.
Professor of the Year, Honorable Mention, College
of Dentistry, Class of 1976, 1977.
Who's Who in the Midwest.
Distinguished Teacher
Award, Graduate College 1982.

Introductory Biochemistry - for 160 dental and medical technician students. given each year with 100 responsibility. 1970-1974

Biochemical Genetics - for graduate students. given alternate years with 30-50 responsibility. 1971-1976

Biological Chemistry 362 - given yearly to about 70 graduate students and medical students with 60 responsibility. 1975 - present

Biological Chemistry 361-Course, director 1981-present

Graduate Student Seminar BC 491 - DNA replication-1971 Autoregulation of gene expression-

BC 391 - Membrane Structure 1978, 1979, 1980.

American Cancer Society, 1970-1973, \$51,191 direct costs

National Science Foundation, 1973-1975, \$50,000 direct costs

Public Health Service, 1975-1978, \$83,710 direct

Public Health Service, 1978-1981, \$147,865 direct costs

Enzyme Technology Corp. 1982, \$10,000

Public Health Service, 1983-1987, \$174,668 direct costs

University of Illinois Graduate Research Board 1969-1970. \$3,000.

University of Illinois General Research Support 1969-1970, \$3,000.

American Cancer Society Institutional Grant 1972-1973, \$3,000.

University of Illinois General Research Support 1972-1973, \$8,532.

University of Illinois Graduate Research Board 1975-1976, \$6,000.

University of Illinois Campus Research Board 1980-1981, \$10,970.

University of Illinois Biological Research Support 1981-1982, \$8,265.

University of Illinois Campus Research Board 1983-84 \$2,590.

SERVICE ACTIVITIES: National

University

National Board of Dental Examiners, 1972-1978.
Organizing Committee for Fifth International Spore
Conference, 1971.

Organizing Committee and Co-editor for Seventh International Spore Conference, 1976-1977

Organizing Committee for the eighth International Spore Conference, 1978-1981

Class Agent for the Brown Fund, Brown University, 1975-1978.

Reviewer for J. Bacteriol., Can. J. Microbiol. BBA, Science.

Grant Reviewer - NIH, NSF, DOE, Meuical Research Council of Canada.

Medical Science Curriculum Committee, 1971 - 1975. Faculty-Student Relations Committee, 1970-1971. Committee on Student Appraisals, 1974-1975 Committee on Evaluate the Dean of the School of Basic Medical Sciences, Subcommittee Chairman, 1976.

Radiation Safety Committee, 1976-1979, Applications

Review Subcommittee, 1976-1979, Chairman, 1977-1979

Committee on Committees, 1976

Institutional Self-Analysis Committees Chairman, Evaluation Committee for Biological Chemistry Dept., 1976.

Member, Evaluation Committee for Microbiology Dept., 1976.

Search Committee for Dean for School of Basic Medical Sciences, 1977-1979.

Search Committee for Head of Riochemistry, 1979.

Biohazards Committee for Recombinant DNA Research, 1977-1980. 1981 - 1982 Chairman, Review and Surveillance Committee 1977-1980.

Executive Committee of the Graduate College, 1979- Present, Courses and Curricula subcommittee 1979-1981, 1982-1983. Student Admissions and Fellowship subcommittee 1981-1982

Medical Center Senate, 1979-1983
Elections Committee 1979-1980
Library Committee 1980-Present
Educational Policy Committee 1980-Present

Educational Policy Committee 1980-Present

Academic Freedom and Tenure Committee 1982 to present

Promotions Committee, School of Basic Medical Sciences, 1980.

Committee on Committees School of Basic Medical Sciences, 1980.

Committee to Evaluate the Library 1981. Committee to Review Consolidation of UIMC and

UICC 1981

Department

Graduate Committee, 1970-1971.
Chairman, Seminar Committee, 1971-1972.
Graduate Committee, 1976-1981
Chairman, 1977-1981
Advisory Committee, 1978-1980. 1981 to present.
Written Preliminary Examination Committee, 1972,
1975, 1976, 1981.
Organized and presently run a monthly
departmental seminar, 1977- Present.
Library 1979-1981
Seminar Committee - 1981

GRADUATE STUDENTS:

Carol Lammi, M.S., 1972 - presently Research
Assoc. at University of Minnesota
Priscilla Carvalho, Ph.D., 1975- presently an
Instructor at Malcolm X College, Chicago,
Illinois.
Luca Hsieh, Ph.D., 1975 - Researcher, Phillips
Petroleum Center, Barthesville, Oklahoma
74007.
Dan Rossignol, Ph.D., 1979-Post-doctoral Fellow
with Dr. W. Lennarz, Johns Hopkins
University, 1980James F. Skomurski, Ph.D., 1981 - Postdoctoral
Fellow with J.C. Vary, 1981
Corrado Ugolini, M.S. 1981 - Medical Student

POST-DOCTORAL FELLOWS:

Steven S. Dills, 1976-1977. Francis M. Racine, 1977-1982. Donald Soucek, 1979. James F. Skomurski, 1981-1982.

BIBL IOGRAPHY

James Corydon Vary

PUBLICATIONS:

- Vary, J.C. and N.G. McCormick. (1965) Kinetics of germination of aerobic <u>Bacillus</u> spores, p. 188-189. In L.L. Campbell and H.O. Halvorson (ed.), Spores III. American Society for Microbiology, Ann Arbor, Michigan.
- Vary, J.C. and H.O. Halvorson. (1965) Kinetics of germination of Bacillus spores. J. Bacteriol 89:1340-1347.
- Halvorson, Harlyn O., James C. Vary and William Steinberg. (1966)
 Developmental changes during the formation and breaking of the
 dormant state in bacteria. Ann. Rev. Microbiol. 20:169-188.
- Vary, J.C. and H.O. Halvorson. (1968) Initiation of bacterila spore germination. J. Bacteriol. 95:1327-1334.
- 5. Rodenberg, S., W. Steinberg. Piper, K. Nickerson, J. Vary, R. Epstein and H.O. Halvorson. (1.58) Relationship between protein and ribonucleic acid synthesis d ring outgrowth of spores of Bacillus cereus. J. Bacteriol. 96:49 -500.
- Woese, C.R., J.C. Vary and H.O. Halvorson. (1968) A kinetic model for bacterial spore germination. Proc. Natl. Acad. Sci. <u>59</u>:869-875.
- Vary, J.C. and A. Kornberg (1970) Temperature-sensitive mutants for the initiation of germination. J. Bacteriol. 101:327-329.
- 8. Lami, C.L. and J.C. Vary. (1972) DNA synthesis during outgrowth of Bacillus megaterium QM B1551 spores, p. 277-282. In H.O. Halvorson, R.S. Hanson, And L.L. Campbell (eds). Spores V. American Society for Microbiology, Washington, D.C.
- 9. Vary, J.C. (1972) Spore germination of <u>Bacillus megaterium</u> QM B1551 mutants. J. Bacteriol. <u>112</u>:640-642.
- 10. J.P. LaPolla, C.M. Harris and J.C. Vary. (1972) Properties of N-methyl-N'- nitro-N-nitrosoguanidine and its action on <u>Bacillus</u> subtilis transforming DNA. Biochem. Biophys. Res. Comm. 49:133-138.
- 11. Vary, J.C. (1973) Germination of Bacillus megaterium spores after various extraction procedures. J. Bacteriol. 116:797-802.
- 12. Vary, J.C. (1975) Properties of Bacillus megaterium temperature-sensitive germination mutants. J. Bacteriol. 121: 197-203.

13. Hsieh, L.K. and J.C. Vary. (1975) Peptidoglycan hydrolysis during initiation of spore germination in Bacillus megaterium. 14. Vary, J.C. (1975) N-methyl-N'-nitro-N-nitroguanidine mutagenesis during germination of Bacillus spores. Mut. Res. 29:493-496. 15. Hsieh, L.K. and J.C. Vary. (1975) Germination and peptidoglycan solubilization in spores of Bacillus megaterium QM B1551. J. Bacteriol. 123:463-470. 16. Carvalho, P.M. and J.C. Vary. (1977) Isolation and characterization of a Bacillus megaterium QM B1551 bacteriophage. J. Gen. Virology 36:547-550. 17. Setlow, B., L.K. Shay, J.C. Vary and P. Setlow (1977) Production of large amounts of acetate during germination of Bacillus megaterium spores in the absence of exogenous carbon sources. J. Bacteriol. 132:744-746. 18. Rossignol, D. and J.C. Vary (1977) A unique method for studying the initial reactions of Bacillus megaterium spore germination. Biochem. Biophys. Res. Comm. 79:1098-1103. 19. Shay, L.K. and J.C. Vary. (1978) Biochemical studies on glucose initiated germination in Bacillus megaterium. Biochem. Biophys. Acta 538:284-292. 20. Rossignol, D.P. and J.C. Vary. (1978) L-proline initiated germination in Bacillus megaterium spores. p. 90-94. In G. Chambliss and J.C. Vary (eds.). Spores VII. American Society for Microbiology, Washington, D.C. 21. Vary, J.C. (1978) Glucose-initiated germination in Bacillus megaterium spores, p. 104-108. In G. Chambliss and J.C Vary (eds.). Spores VII. American Society for Microbiology, Washington, D.C. 22. Spores VII. G. Chambliss and J.C. Vary (eds.). American Society for Microbiology, Washington D.C. 23. Dills, S.S. and J.C. Vary. (1978) Dills, S.S. and J.C. Vary. (1978) An evaluation of the necessity of a proton motive force for initiation of Bacillus spore germination. Biochim. Biophys. Acta 541:301-311. 24. Racine, F.M., Dills, S.S. and J.C. Vary. (1979) Glucose uptake during triggering of germination of Bacillus megaterium spores. J. Bacteriol. 138:442-445. 25. Rossignol, D. and J.C. Vary. (1979) Biochemistry of L-proline triggered germination in spores of Bacillus megaterium. J. Bacteriol. 138:431-441. - 6 -

. . 26. Janoff, A.S., R.T. Coughlin, F.M. Racine, E.J. McGroarty and J.C. Vary. (1979) Use of electron spin resonance to study Bacillus megaterium spore membranes. Biochem. Biophys. Res. Comm. 89:565-570. 27. Rossignol, D.P. and J.C. Vary. (1979) L-proline site for triggering Bacillus megaterium spore germination. Biochem. Biophys. Res. Comm. 89):547-551. 28. Racine, F.M. and J.C. Vary. (1980) Isolation and properties of membranes from spores of Bacillus megaterium QM B1551. J. Bacteriol. 143: 1208-1214. 29. Racine, F.M., J.F. Skomurski and J.C. Vary. 1981. Alterations in Bacillus megaterium QM B1551 membranes with acetic anhydride and L-proline. p. 224-227, In H.S. Levinson, A.L. Sonenshein and D.J. Tipper (eds.) Sporulation and Germination. Amer. Soc. Microbiol. Washington, D.C. 30. Skomurski, J.F. and J.C. Vary. 1982. Changes in fatty acid composition effect the germination of Bacillus megaterium spores. Lipids 17: 914 -923. 31. Racine, F.M. and J.C. Vary. 1982. Improved method for purification of membranes from spores of Bacillus megaterium. Prep. Biochem. 12: 265-273. 32. Skomurski, J.F., F.M. Racine and J.C. Vary. 1983. Steady-state fluorescence anisotropy changes of 1,6-dipheny1-1,3,5 hexatriene in membranes from Bacillus megaterium spores. Biochim. Biophys. Acta 731: 428-436. 33. Ugolini, C., D.P. Rossignol and J.C. Vary. 1983. Synthesis and characterization of proline chloromethyl ketone. (in preparation). 34. Cornell, B.A., J.F. Skomurski and J.C. Vary. 1983. Differential scanning calorimetry of Bacillus megaterium spore membranes. J. Bacteriol. (submitted). 35. Cornell, B.A., R.G. Hiller, J. Raison, F. Separovic, R. Smith, J.C. Vary and C. Morris. 1983. Biological membranes are rich in low frequency motion. Biochim. Biphys. Acta 732: 473-478. 36. Cornell, B.A., F. Separovic and J.C. Vary. 1982. NMR studies on Bacillus megaterium spore membranes. (in preparation). - 7 -

ABSTRACTS, BOOK REVIEWS, DISCUSSION: Vary, J.C. and W. Steinberg. (1964) Kinetics of germination of aerobic bacillus spores. Bact. Proc. p. 36. Vary, J.C. (1965) Heat-activated initiator of spore germination. Bact. Proc. p. 37. Vary, J.C. (1969) Discussion of action and properties of spore germination enzymes. In Spores IV, ed. by L.L. Campbell, American Society for Microbiology, Ann Arbor, Michigan, pp.287-288. 4. Vary, J.C. (1971) Book review of Genetics of Antibiotic-producing Micro-organisms by G. Sermonti. J. Franklin Instit. 291:80. 5. Vary, J.C. (1972) Mechanisms of germination of bacterial spores, in Symposium: Dormancy and developmental arrest. American Association for the Advancement of Science Annual Meeting. 6. Hsieh, L.K. and J.C. Vary. (1974) Relation of Bacillus megaterium spore "lytic" enzyme and initiation of germination. Amer. Soc. Microbiol. Abstracts. 1974 p. 28. 7. Hsieh, L.K. and J.C. Vary. (1574) Spore "lytic" enzyme in Bacillus megaterium. Sixth International Spore Conference. 8. Carvalho, P.M. and J.C. Vary. (1975) ! ytic phage for Bacillus megaterium QM B1551. Amer. Soc. Microbiol. Abstracts, p. 259. 9. Hsieh, L.K. and J.C. Vary. (1975) Initiation of germination in mutants of Bacillus megaterium spores. Amer. Soc. Microbiol. Abstracts p. 139. 10. Dills, S.S. and J.C. Vary. (1977) Glucose uptake during germination of Bacillus megaterium spores. Amer. Soc. Microbiol. Abstracts p. 165. 11. Rossignol, D.P. and J.C. Vary. (1977) Initiation of germination by L-proline in spores of Bacillus megaterium. Amer. Soc. Microbiol. Abstracts p. 165. 12. Rossignol, D.P. and J.C. Vary. (1977) L-proline initiated germination in spores of Bacillus megaterium. Seventh International

13. Vary, J.C. (1977) Bacillus megaterium QM B1551 initiation of

germination. Symposium: Spore structure, resistance, Dormancy and germination. Seventh International Spore Conference.

- 8 -

14. Rossignol, D.P. and J.C. Vary. (1978) Specific site for L-proline triggering of Bacillus megaterium spore germination. Fed. Proc.

Spores Conference.

37:1611.

- 15. Racine, F.M. (1978) Use of glucose photoaffinity labeling to study the germination trigger site of <u>Bacillus megaterium</u> spores. Fed. Proc. 37:1613. (Funded and directed by J.C. Vary).
- 16. Skomurski, J.F. and D.K. Ratzlaff. (1978) L-leucine triggered germination in <u>Bacillus</u> megaterium QM B1551. Fed. Proc. 37:1611 (Funded and directed by J.C. Vary).
- 17. Janoff, A.S., F.M. Racine, E.J. McGroarty and J.C. Vary. (1979) Use of ESR probes to study bacterial spore membranes. Amer Soc. Microbiol. Abstracts p. 102.
- Rossignol, D.P. and J.C. Vary. (1979) Chemical modification of the L-proline trigger site in spores of <u>Bacillus megaterium</u>. International Congress of Biochemistry.
- 19. Rossignol, D.P. and J.C. Vary, (1980) Identification of a membrane associated L-proline trigger site for Bacillus megaterium spore germination. Fed. Proc. 39:1614.
- 20. Racine, F.M. and J.C. Vary, 1980. Identification of a spore membrane fraction possibly involved in germination. Eighth International Spore Conference.
- 21. Skomurski, J.F. and J.C. Vary. 1980. Effect of L-proline on isolated spore membranes of <u>Bacillus</u> megaterium QM B1551. Eighth International Spore Conference.
- 22. Vary, J.C. 1980. Triggering of germination in bacterial spores.

 Symposium: Resistance, Dormancy and Release from Dormancy. Eighth
 International Spore Conference.

23. Vary, J.C. 1982. Fluorescence studies on Bacillus megaterium spore membranes. Australian Biophysics Society.