Department of Health and Human Services
U.S. Public Health Service
Food and Drug Administration
Center for Drug Evaluation and Research
Silver Spring, MD 20993

NMSB2

April 24, 2008

Licensing Assistant Section
Nuclear Materials Safety Branch
U.S. Nuclear Regulatory Commission, Region I
475 Allendale Road
King of Prussia, PA 19406-1415

03031689

Dear Madam/Sir:
We would like to amend our Materials License number 19-07538-05.
1) Remove Richard Cysyk, Ph.D. as an authorized user in Condition #11 of the Materials License.

2) Change the Radiation Safety Officer (RSO) for this license from Raymond W. klecker to Robert Parker, Ph.D. in Condition #12 of the Materials License.

Robert Parker has been a radiation user in the Department of Health and Human Services since 1981. He successfully completed the 10-day Authorized User Course offered by Radiation Safety Branch of the National Institutes of Health and has been a continuous user since that time. He has experience with the isotopes of the current license, H-3, C-14 and S-35, as well others that are not on our current license, I-125 and Cr-51.

Attached is a letter acknowledging the completion the Authorized User Course and a Course Outline. Also attached is a CV for Robert Parker, Ph.D.

Thanks for your assistance.

Sincerely,

John M Strong

John M. Strong, Acting Director
Laboratory of Clinical Pharmacology
Office of Testing and Research
Center for Drug Evaluation and Research
U.S. Food and Drug Administration, DHHS
Life Sciences Building #64
10903 New Hampshire Ave
Silver Spring, MD 20993
Phone (301) 796-0121
Fax (301) 796-9818

attachments

cc. Robert Parker, Ph.D., Raymond W Klecker.

142344

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

National Institutes of Health
Bethesda, Maryland 20892

SEP 20 1994

Dr. Robert J. Parker
Food and Drug Administration
CDER, ORR, Division of Clinical Pharmacology
4 Research Court Rm. 314
Rockville, MD 20850

This is to verify that Dr. Robert J. Parker (RSB#3495) successfully completed the requirements for the course, RADIATION SAFETY FOR AUTHORIZED USERS December 11, 1980 as presented by the Radiation Safety Branch, Division of Safety, National Institutes of Health. He was approved as an Authorized User by the Radiation Safety Committee on February 1, 1981.

As an Authorized User (AU), Dr. Parker was approved to procure and supervise the use of radioactive materials. The AU also takes on the responsibility to instruct and supervise laboratory workers in the proper and approved safe handling of radioactive materials and approved laboratory practices to keep personnel radiation exposures as low as reasonably achievable. Other responsibilities of the AU include routine laboratory monitoring, and complying with all regulations governing the use of radioactive materials and laboratories as established by the Nuclear Regulatory Commission and the NIH Radiation Safety Office.

Dr. Parker, also attended the 1986 Annual Radiation Safety Refresher Courses as presented by the Radiation Safety Branch on October 26, 1989.

Completion of this refresher course satisfies the annual NIH radiation safety training requirements for individuals working with radioactive materials licensed by the U.S. Nuclear Regulatory Commission. Radiation workers completing these refresher courses may continue to use radioactive materials under the supervision of Authorized Users.

Attached are copies of the refresher training outline and a representative outline for the RSAU course. If further information is needed, please contact me.

William F Holcomb

William F. Holcomb
Training Officer
Radiation Safety Branch
Division of Safety
(301) 496-2255

Enclosures

RADIATION SAFETY

FOR

AUTHORIZED USERS

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

U.S. PUBLIC HEALTH SERVICE

NATIONAL INSTITUTES OF HEALTH

DIVISION OF SAFETY

RADIATION SAFETY BRANCH

RADIATION SAFETY FOR AUTHORIZED USERS

COURSE OUTLINE
(FALL-1991)

I. COURSE OVERVIEW
- A. Structure
- B. Handouts
- C. Quizzes
- D. Homework
- E. Lab Sessions
- F. Staff and guest lectures
- G. Examination

II. INTRODUCTION
- A. Welcome by Branch Chief and NIH Radiation Safety Officer
- B. Overview of program

III. RADIATION AND RADIOACTIVITY-- I,II, and III
- A. Atomic and Nuclear Structure
  1. atoms, protons, neutrons electrons, Z,A
  2. isotopes, nuclides
  3. nuclear reactions
  4. ionization and ionizing characteristics
- B. Radioactivity and Radioactive Decay
  1. alpha, beta,gamma, X-rays, neutrons
  2. specific activity
  3. half-life, exponential decay
- C. Production of Radioactivity
  1. internal conversion
  2. orbital electron capture
  3. positron decay
  4. Bremsstrahlung
- D. Other Sources of Radiation
  1. natural radioactivity
  2. accelerators
  3. non-ionizing

V. PERSONNEL MONITORS AND MONITORING

A. Various types of external exposure monitoring and operational characteristics
   1. film badges
   2. pocket dosimeters
   3. solid-state (TLD)
B. Selection of types and how to wear
C. Sensitivity and sources of error
D. Internal exposure monitoring
   1. bioassay
   2. body counting
   3. criteria for requesting bioassay and body counting
E. NIH personnel exposure experience
   1. external
   2. internal
F. RSB criteria for major and minor investigations of positive bioassays or FB readings

VI. INTERNAL DOSIMETRY – I AND II

A. Routes of entry
B. Determinants of what gets retained and what doesn't
C. Methods of calculation internal absorbed dose
D. U.S. and ICRP standards for limiting internal exposure
E. Example problems

VII. INTERNAL RADIATION HAZARDS AND CONTROLS AND EMERGENCY PROCEDURES

A. Definition
B. Principal routes of entry
   1. inhalation route – iodination procedures, etc.
   2. ingestion route
   3. absorption route
   4. puncture route
C. Controls on internal exposures
D. Contamination monitoring techniques
   a. survey video
E. Laboratory survey requirements
   1. explanation of radionuclide lab survey requirement
      a. permissive vs. mandatory lab surveys
      b. routine vs. specialized lab survey
         i. monthly surveys, by authorized user
         ii. daily-when-used surveys, by users
         iii. contractor surveys
         iv. health physicist surveys

IX. BASIC MECHANISMS OF RADIOGENIC BIOEFFECTS

A. History of radiogenic bioeffects recognition
B. Dose-response characteristics
    1. direct, indirect
    2. ionization, excitation
    3. chemical and biological changes
    4. radiosensitivity
C. Somatic Effects
    1. Prompt effects; mechanism of induction
        a. acute radiation syndrome
        b. blood changes
        c. GI, CNS
    2. Delayed effects; mechanism of induction
        a. carcinogenesis
        b. leukemia
        c. life shortening
        d. cataracts
D. Genetic Effects
    1. risks
    2. individual versus population
E. Teratogenic effects
F. Coping mechanisms (repair processes)
G. Extrapolations into the low-dose region

X. EPIDEMIOLOGY OF RADIOGENIC BIOEFFECTS

A. Human study populations of interest
B. Discussion of site-specific cancer mortality findings
C. Key factors considered in radioepidemiologic studies
    1. duration of follow-up
    2. age at exposure
    3. gender
    4. type of radiation
    5. route of exposure
    6. dose
    7. dose rate
    8. organ exposed
    9. cofactors

PART III -- LIQUID SCINTILLATION COUNTING WORKSHOP
PART IV -- MONTHLY SURVEY OF A USER LABORATORY
A. Contractor survey form
B. Monthly laboratory survey from

XV. RSB DATABASE COMPUTER SYSTEM

XVI. NIH ADMINISTRATIVE PROCEDURES
A. Authorized user structure; user registration
B. Radiation Safety Training
C. Administrative aspects of bioassay program, FB program
D. Limits on activities taken to user labs; protocols
E. NIH radionuclide inventory
F. Monthly status report : untrained users; bioassay requests

XVII. SHIPPING AND RECEIVING
A. Placing orders for radionuclides
B. How radioactive materials are received at NIH
C. Contamination and contents checking
D. Delivery to labs or storage in Bldg. 21
E. Procedure for shipping to another license

XVIII. REGULATIONS, GUIDES, POLICIES
A. Distribution of regulatory functions over which agencies
B. Code of Federal Regulations
1. 10 CFR 19, 20, 35
2. pertinent provisions
3. training requirements for human users
C. Guides
1. NRC regulatory guides
a. instructions concerning risk (8.29)
b. prenatal risk (8.13)
c. applications for medical use programs (10.8)
2. NCRP, ICRP, other similar publications
D. Policies

1. NRC licenses held by NIH
2. Radiation Safety Guide

NAME: Robert J. Parker December 22, 2006
SERIES/GRADE: GS 13/10

EDUCATIONAL BACKGROUND

B.Sc.(Hons) 1975 Pharmacology, University of Northumbria, School of Pharmacy, Sunderland, County Durham, England. UK.

Ph.D. 1977 University of London, St. Mary's Hospital Medical School, Paddington, London, England, UK.

PROFFESSIONAL EXPERIENCE

(1978-1985)	Visiting Fellow/Associate, Laboratory of Chemical Pharmacology Division of Cancer Treatment, NCI, NIH, Bethesda, Maryland.
(1985-1987)	Research Pharmacologist, Hazeleton Laboratories, Vienna, Virginia.
(1987-1990)	Cancer Expert, Special Studies Section, Office of the Director, Division of Cancer Etiology, NCI, NIH, Bethesda, Maryland.
1989	Nagasone Fellowship, National Cancer Institute, Tokyo, Japan
(1990 -)	Pharmacologist FDA/CDER/OPS/OTR, Silver Spring Maryland

HONORS, AWARDS, AND COMPETETIVE FDA CASH AWARDS FOR RESEARCH

- Nakasone Fellowship, Carcinogenesis Division, National Cancer Research Center, Tokyo, Japan 1990
- Cash award as member of CDER's IACUC committee 1994.
- Outstanding performance award for Development of Analytical Method to measure conjugated estrogens in human plasma 1998.
- Commendable Service Award as a member of the Nicotine Patch Research and Review Working Group 1998.
- CDER Information Technology Excellence Award as a Member of the OPS Laboratory Research Y2K Team 1999.

LICENSES and CERTIFICATIONS

- Radiation Safety for Authorized Users – 5 day course completed December 11, 1980 at Radiation Safety Branch, NIH (RSB User #3495)
- DOT and NRC Requirements for Shipping Radioactive Materials – Training Certification from the Radiation Safety Academy on June 6, 2007.

FDA SPECIAL ASSIGNMENTS AND ADVISORY ACTIVITIES

- FDA/CDER, Animal care and Use Committee (1992 – 1995)
- CDER Reviewer Affairs Committee (1999 – 2000)

BIBLIOGRAPH

Peer-reviewed, Archival Publications

1. Hirom, P. C., Millburn,P., and Parker, R. J.: The enterohepatic circulation of phenolphthalein in the rat. Brit. J. Pharmacol. 56: 355, 1976.

2. Colburn, W. A., Hirom, P. C., Parker, R. J., and Millburn, P.: A pharmacokinetic model for enterohepatic circulation in the rat: phenolphthalein, a model drug. Drug Metab. Dispos. 7: 100-102, 1979.

3. Parker, R. J., Hirom, P. C., and Millburn, P.: Factors influencing the enterohepatic circulation of xenobiotics in the rat. Xenobiotica 10: 689-703, 1980.

4. Parker, R. J., Hartman, K. D., and Sieber, S. M.: Lymphatic absorption and tissue disposition of liposome-entrapped [14C] adriamycin following intraperitoneal administration to rats. Cancer Res. 41: 1311-1317, 1981.

5. Parker, R. J., Sieber, S. M., and Weinstein, J.N.: The effect of liposome encapsulation of a fluorescent dye on its uptake by the lymphatics of the rat. Pharmacology 23: 128-136, 1981.

6. Parker, R. J., Priester, E. R., and Sieber, S. M.: Comparison of lymphatic uptake, metabolism, excretion and biodistribution of free and liposome entrapped [14C]cytosine-b-D-arabinofuranoside following ip administration to rats. Drug Metab. Dispos. 19: 40-46, 1982.

7. Litterst, C. L., Sieber, S. M., Copley, M., and Parker, R. J.: Toxicity of free and liposome-encapsulated adriamycin following large volume, short term exposure in the rat. Toxicol. Appl. Pharmacol. 64: 517-528, 1982.

8. Parker, R. J., Priester, E. R., and Sieber, S. M.: Effect of route of administration and liposome entrapment on the metabolism and disposition of adriamycin in the rat. Drug Metab. Dispos. 10: 40-46, 1982.

9. Weinstein, J. N., Parker, R. J., Keenan, A., Dower, S., Morse, H., and Sieber, S. M.: Monoclonal antibodies in the lymphatics: Toward the diagnosis and therapy of tumor metastases. Science 218: 1334-1337, 1982.

10. Flessner, M., F., Parker, R. J., and Sieber, S. M.: Peritoneal lymphatic uptake of fibrinogen and erythrocytes in the rat. Amer. J. Physiol. 244: H89-H96, 1983.

11. Parker, R. J., Adamson, R. H., Duoros, J. D., and Sieber, S. M.: Comparative pharmacologic studies of actinomycin D (NCS #3053) and pip-1-b-actinomycin (NSC #107660) Cancer Treat. Symp. 1: 45-50, 1983.

12. Weinstein, J. N., Steller, M., Keenan, A. M., Covell, D. G., Key, M. E., Sieber, S. M., Oldham, R. K., Hwang, K. M., and Parker, R. J.: Monoclonal antibodies in the lymphatics: Selective delivery to lymph node metastases of a solid tumor. Science 222: 423-426, 1983.

13. Weinstein, J. N., Steller, M. A., Covell, D. G., Holton, O. D. III, Keenan, A. M., Sieber, S. M., and Parker, R. J.: Monoclonal anti-tumor antibodies in the lymphatics. Cancer Treatment Rep. 68: 257-264, 1984.

14. Weinstein, J. N., Steller, M. A., Covell, D. G., Dower, S. K., Segal, D. M., Keenan, A. M., Sieber, S. M., and Parker, R. J.: Use of monoclonal antibodies for diagnosis and therapy of tumor metastases in lymph nodes. In: Affinity Chromatography and Biological Recognition, Chaiken, I. M., and Parikh, I. (eds.), Academic Press, New York, 1984, pp. 337-342.

15. Weinstein, J. N., Holton, O. D., Black, C. D. V., Keenan, A. M., Covell, D. G., Spaulding, G. F., Barbet, J., Steller, M. A., Sieber, S. M., Talley, M. J., and Parker, R. J. In 1985 Year Book of Cancer, Hickey, R. C., and Saunders, G. F., (Eds.), Year Book Medical Publishers, Chicago, 1985, pp 264-266.

16. Weinstein, J. N., Parker, R. J, Holton, O. D., Keenan, A. M., Covell, D. G., and Sieber, S. M.: Lymphatic delivery of monoclonal antibodies : Potential for detection and treatment of lymph node metastases. Cancer Invest. 3: 85-95, 1985.

17. Covell, D. G., Steller, M. A., Parker, R. J., and Weinstein, J. N. : Delivery of monoclonal antibodies through the lymphatics : Characterization by compartmental modelling. Computer Applications in Medical Care, 10: 884-888, 1985.

18. Steller, A. M., Parker, R. J., Covell, D. G., Holton, O. D., Keenan, A. M., Sieber, S. M., and Weinstein, J. N. : Optimization of monoclonal antibody delivery via the lymphatics. : The dose-dependance. Cancer Res. 46: 1830-1834, 1986.

19. Covell, D G., Barbet,J., Holton, O. D., Black, C. D. V., Parker, R. J., and Weinstein, J. N. Pharmacokinetics of monoclonal immunoglobulin G1, F(ab')2, and Fab' in mice. Cancer Res. 46: 3969-3978, 1986.

20. Weinstein, J. N., Holton, O. D., Black, C. D. V., Keenan, A. M., Covell, D. G., Spaulding, G., Barbet, J., Steller, M. A., Sieber, S. M., Talley, M. J., and Parker, R. J. :

Parker, R. J., Keenan, A. M., Dower, S. K., Steller, A. M., Holton, O. D., and Sieber, S. M. : Targeting of murine monoclonal antibodies in the lymphatics. Cancer Res. 47: 2073-2076, 1987.

21. Holton, O. D., Black, C. D. V., Parker, R. J., Covell, D. G., Barbet, J., Sieber, S. M., Talley, M. J., and Weinstein, J. N. : Biodistribution of monoclonal IgG1, F(ab')2, and Fab' in mice after intravenous injection. A comparison between anti-B cell (anti-Lyb8.2) and irrelevant (MOPC-21) antibodies. J. Immunol. : 139, 3041-3049, 1987.

22. Szebeni,J., Parker, R.J., and Weinstein, J.N. Inhibition of HIV-1 in monocyte/macrophage cultures by 2',3'-dideoxycytidine-5'-triphosphate, free and in liposomes. Aids Res. Hum. Retro. 6, 691-702, 1990.

23. Anderson, L., Parker, R. J., Collins, J. M., Wilkinson, D., Algrehn, J., and Strong, J. M. GC-MS methods for routine monitoring of 5-fluorouracil in plasma of patients receiving low level protracted infusions. J. Chrom. 581, 195-201, 1992.

24. Johnson, B.E., Parker, R., Tsai, C., Baltz, J., Miller, J., Shoemaker, R., Bastian, A., Stocker, J., Phares, J., Mulshine, J., Gazdar, A., and Idhe, D. Phase I clinical trial of dihydrolenperone in lung cancer patients, a novel compound with in vitro activity against lung cancer. Invest New Drugs ,11, 29-37, 1993.

25. Effect of cimetadine, probenecid and ketoconazole on the distribution, biliary excretion and metabolism of ^{3}H-Taxol in the Sprague-Dawley rat. Klecker, R.W, Jamis-Dow, C. A., Egorin, M. J., Erkmen, K., Parker, R. J., Stevens, R., and Collins, J. M. Drug Metab.Dispos. 22, 254-258, 1994.

26. Parker, R.J., Collins, J.M. and Strong, J.M. Identification of 2,6-xylidine as a major lidocaine metabolite in human liver slices Drug Metab. Dispos. 24, 1167-1173- 1996.

27. van Zijl, P.C.M., Davis, D., Eleff, S., Moonen, C.T.W., Parker, R.J., and Strong, J.M. Noninvasive determination of cerebral glucose transport and metabolic kinetics by dynamic magnetic resonance spectroscopy. Amer. J. Physiol 273, E1216-E1227, 1997

28. Moody, D.E., Alburges, M.E., Parker, R.J., Collins, J.M., and Strong, J.M. The involvement of cytochrome P450 3A4 in the n-demethylation of l-α-acetylmethadol (LAAM), norLAAM and methadone. Drug Metabol. Dispos. 25, 1347-1353, 1997.

29. Vick, J.A., Herman, E.H., Strong, J.M., Parker, R.J., Geyer III, H.M., Kramer, D.E., Higgins, K.M., and Sistare, F.D. Effects of bucally administered nicotine patches on the cardiovascular system of the dog: a comparative study. Clin. Toxicol 39:135-142, 2001

30. Hartman, N.R., Cysyk, R.L., Bruneau-Wack, C., Thenot, J.P., Parker, R.J., and Strong, J.M.Production of intracellular 35S-glutathione by rat and human hepatocytes for the quantiation of xenobiotic reactive intermediates. Chemico-Biological Interactions 142: 43-55, 2002.

31. Parker, R.J. . Hartman, N. R., Roecklein, B. A., Kupferberg, H. J., Stables J. S. (, d Strong J. M. Stability and comparative metabolism of felbamate metabolites and postulated fluorofelbamate metabolism by postmitochondrial suspensions. Chem. Res. Toxicol. 18: 1842-1848, 2005.

32. Cysyk, R. L., Parker, R. J., Barchi, J, J., Steeg, P. S., Hartman, N. R., and Strong, J. M. The reaction of geldanamycin and C17-Substituted analogs with glutathione: product identifications and pharmacological implications. Chem. Res. Toxicol . 19: 376-381, 2006.

Books or Book Chapters

1. Weinstein, J. N., Keenan, A. M., Holton, O. D., Covell, D. G., Sieber, S. M., Covell, D. G., Carrasquillo, J., Barbet, J., and Parker, R. J. : Use of monoclonal antibodies to detect metastases of solid tumors in lymph nodes. In: Monoclonal Antibodies and Breast Cancer, Ceriani, R. L., (ed.), Martinus Nijhof, Boston, 1986, pp. 473-488.

2. Weinstein, J. N., Black, C. D. V., Keenan, A. M., Holton, O. D., Larson, S. M., Sieber, S. M., Covell, D. G., Carrasquillo, J., Barbet, J., and Parker, R. J. : Use of monoclonal antibodies for detection of lymph node metastases. In: Monoclonal Antibodies in Cancer Therapy, Alan R. Liss Inc., New York, 1986, pp. 473-488.

3. Weinstein, J. N., Black, C. D. V., Parker, R. J., Eger, R. R., Sieber, S. M., Mozayei, B., and Covell, D. G. : Selected issues in the pharmacology of monoclonal antibodies. In: Site Specific Drug Delivery: Cell Biology, Medicinal and Pharmaceutical Aspects, Tomlinson, E., and Davis, S. S. (eds.), John Wiley, London, 1986, pp. 81-91.

4. Weinstein, J. N., Holton, O. D., Black, C. D. V., Keenan, A. M., Covell, D. G., Spaulding, G., Barbet, J., Steller, M. A., Sieber, S. M., Talley, M. J., and Parker, R. J.Regional delivery of monoclonal antitumor antibodies : Detection and possible treatment of lymph node metastases. In: Cancer Metastasis: Experimental and Clinical Strategies, Welch, D. R., Buhyan, B. K., and Liotta, L. A. (eds.), Allan R. Liss Inc., New York, 1986, pp. 169-180.

5. Weinstein, J. N., Black, C. D. V., Holton, O. D., Covell, D. G., Parker, R. J., Mulshine, J. L., Lotze, M. T., Carrasquillo, J., Eger, R., Lewis, A., Larson, S. M., and Keenan, A. : Delivery of monoclonal antibodies to lymph nodes via the lymphatics. In "The

Pharmacology and Toxicology of Proteins", Winkelhake, J.L., and Holcenberg, J. S., (eds.), Alan R. Liss, N.Y., 1987, pp 75-89.

6. Weinstein, J. N., Covell, D. G., Barbet, J., Eger, R. R., Holton, O. D., Talley, M. J., Parker, R. J., and Black, C. D. V. : Local and cellular factors in the pharmacology of monoclonal antibodies. In: Membrane Mediated Cytotoxicity, Bonavida, B., and Collier, R. J. (eds.), Allan R. Liss Inc., New York, 1987, pp. 279-289.

7. New, R., Black, C.D.V. and Parker, R. J. Liposomes in biological systems. In : "Liposomes: A Practical Approach", New, R. C. (ed.), Oxford University Press, Oxford, 1990, pp. 221-251.

Conference or Society Proceedings

PRESENTATIONS (last 5 years or since last promotion, indicate Invited by asterisk*

1. *Enzyme induction in plateable cryopreserved human hepatocytes**. IBC Life Sciences Conference "Drug-Drug Interaction and Metabolism" Philadelphia PA December 12-13, 2002.

2. *Comparison of Felbamate and Postulated Fluoro-Felbamate Intermediary Metabolism by Human Liver S9 Fractions Leading to Reactive Metabolites*. 13th North American Meeting of the International Society for the Study of Xenbiotics, Wailea, Maui, Hawaii, October 23-27, 2005.

This is to acknowledge the receipt of your letter/application dated

4/24/2008, and to inform you that the initial processing which includes an administrative review has been performed.

☑ AMEND 19-07538-05 There were no administrative omissions. Your application was assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.

☐ Please provide to this office within 30 days of your receipt of this card

_____.

A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved.

Your action has been assigned **Mail Control Number** 142344.
When calling to inquire about this action, please refer to this control number.
You may call us on (610) 337-5398, or 337-5260.

NRC FORM 532 (RI)
(6-96)

Sincerely,
Licensing Assistance Team Leader