



**POST-GRADUATE TRAINING:**

5/89-8/89 5/90-9/90	Commissioned Officer Student Training Externship U.S. Public Health Service National Institutes of Health Warren Magnuson Clinical Center Department of Nuclear Medicine Clinical Nuclear Pharmacy 1989 Cyclotron PET Facility 1990 Bethesda, Maryland
5/90-7/91	Nuclear Pharmacy Residency Preceptor: William B. Hladik, III University of New Mexico Albuquerque, New Mexico
5/91	Good Manufacturing Practices (GMP) Certification University of New Mexico, College of Pharmacy Albuquerque, New Mexico
12/97	Good Manufacturing Practices (GMP) Recertification Director, Process Quality Planning, Mallinckrodt Medical Albuquerque, New Mexico
1/00-2/00	Radioimmunotherapy Preceptorship Eppley Cancer Center University of Nebraska Medical Center Omaha, Nebraska
11/01	Clinical Research Skills Workshop for Investigators Pharmaceutical Regulatory Education Group Pfizer, Inc. Albuquerque, New Mexico
2/02	Human Research and Review Committee (HRRC) Investigator (online) Training University of New Mexico Health Sciences Center
5/02	American Association of Colleges of Pharmacy Institute The interface between assessment and accreditation Leesburg, Virginia May 31 – June 3, 2002
6/02	WinNonlin Professional 3.3 Hands-On Training Pharsight Corporation Carey, NC
8/02	Human Subject Assurances Online Training Office of Human Research Protections (OHRP) U.S. Department of Health and Human Services

## ACADEMIC APPOINTMENTS

11/03 - 10/04  
7/01- 6/03 Associate Member  
Pharmacy Liaison for Clinical Research and Experimental Therapeutics  
Cancer Research and Treatment Center  
University of New Mexico Health Sciences Center

1/98 - present Director, Radiopharmaceutical Sciences Program  
College of Pharmacy  
University of New Mexico Health Sciences Center

8/94 - present Assistant Professor  
College of Pharmacy  
University of New Mexico Health Sciences Center  
*Tenured July 2000*

1/94 - 8/94 Clinical Assistant Professor  
College of Pharmacy  
University of New Mexico

8/93 - 12/93 Lecturer I  
College of Pharmacy  
University of New Mexico

7/91 – 6/93 Instructor  
Department of Radiology  
Tufts University School of Medicine  
Boston, Massachusetts

1/91 – 5/91 Graduate Research Assistant  
Radiopharmaceutical Sciences  
College of Pharmacy  
University of New Mexico

5/85 - 12/85 Undergraduate Teaching Assistant  
Department of Biology  
University of Nebraska  
Lincoln, Nebraska

## MEDICAL STAFF APPOINTMENTS

1/99 - present Clinical Pharmacist  
Division of Nuclear Medicine  
Department of Radiology  
University of New Mexico Health Sciences Center  
Albuquerque, New Mexico

8/93 - 1/99 Clinical Pharmacist (WOC)  
Joint Imaging Service (Radiology)  
Veterans Affairs Regional Medical Center  
Albuquerque, New Mexico

**STAFF AND ADMINISTRATIVE POSITIONS**

3/02 - present	Executive Director and Chair, Board of Directors National Association of Nuclear Pharmacies
6/99 - present	Curriculum Manager Nuclear Education Online (NEO) "A consortium for education in nuclear sciences" University of New Mexico University of Arkansas for the Medical Sciences
3/00 - 3/02	Vice-Chair and Special Assistant to the Executive Director National Association of Nuclear Pharmacies
7/96	Interim Pharmacy Manager Quantum Health Resources Albuquerque, New Mexico
1/94 - 2/98	Clinical Pharmacist Staff: January 1994 - September 1994 Casual Pool: September 1994 - February 1998 Quantum Health Resources/Ohlsten Health Services Albuquerque, New Mexico
7/97 - 12/98	Pharmacist - Casual Pool (PRN) Holy Cross Hospital Taos, New Mexico
2/94 - 12/94	Clinical Pharmacist - Casual Pool (PRN) Transitional Hospitals Corporation Albuquerque, New Mexico
8/90 - 6/91 8/90 - 1/91	Hospital Pharmacist - Casual Pool (PRN) Radiopharmacist - Relief Staff Pharmacist Syncor International, Inc. Lanham, Maryland
8/90 - 5/91 7/93 - 12/93	Clinical Pharmacist - Casual Pool (PRN) University Hospital Albuquerque, New Mexico
5/89 - 8/89 5/90 - 9/90	Pharmacy Intern – 1989 Visiting Radiopharmacy Resident – 1990 U.S. Public Health Service National Institutes of Health Warren Magnuson Clinical Center Department of Nuclear Medicine Clinical Nuclear Pharmacy and Cyclotron Facility Bethesda, Maryland

**TEACHING****University of New Mexico, College of Pharmacy***Instructor of Record*

1993 - present	Pharm 411/511 Nuclear Pharmacy Instrumentation
1993	Pharm 412/512 Radiopharmaceutical Chemistry
2003 - present	Pharm *413 Radiopharmacy Health Physics and Radiation Biology
1998 - present	Pharm 416/516 Radiopharmacology
1994 - 1999	Pharm 433L Clinical Pharmacy Rotations I
1994 - 1999	Pharm 434L Clinical Pharmacy Rotations II
1999 - present	Pharm 496 Topics in Pharmacy (Introduction to Radiopharmacy)
1994 - present	Pharm 497 Problems in Pharmacy
2003 - present	Pharm 518 In-Vitro Radiotracer Procedures
2003 - present	Pharm 519L Instrumentation and In-Vitro Lab
1993 - present	Pharm 521 Radiopharmaceutics
2001 - present	Pharm 523 Clinical Nuclear Medicine
1993 - present	Pharm 592 Seminars in Radiopharmacy
1994 - present	Pharm 595 Topics in Pharmaceutical Sciences
1994 - present	Pharm 597 Research in Pharmaceutical Science
1994 - present	Pharm 599 Thesis
1998 - 2000	Pharm 709 Basic Patient Interaction
1997 - present	Pharm 711 Problem-Based Learning
1998 - present	Pharm 712 Problem-Based Learning
1998 - present	Pharm 716 Practical Patient Experience
1995 - present	Pharm 770 Clinical Pharmacy Clerkship
1996 - 1999	Pharm 793 Clinical Pharmacy Clerkship

*Invited Lecturer*

1994 - 1998	Pharm 414 Basics of Nuclear Pharmacy Practice
1994 - 1997	Pharm 416 Radiopharmacology
1994 - 1998	Pharm 418L Clinical Nuclear Pharmacy Laboratory
1994 - 1998	Pharm 431 Clinical Therapeutics I
1994 - 1999	Pharm 432 Clinical Therapeutics II
1994 - 1998	Pharm 437 Therapeutic Drug Monitoring and Drug Induced Disease
1994 - 1998	Pharm 461 Organic Pharmaceutical Chemistry I
1994 - 1999	Pharm 462 Organic Pharmaceutical Chemistry II
1998 - 1999	Pharm 731 Mechanisms of Drug Action I
1999 - 1999	Pharm 732 Mechanisms of Drug Action II
1998 - present	Pharm 745 Clinical Pharmacokinetics
1998 - 2001	Pharm 751 Pharmacotherapy I
1998 - 2002	Pharm 752 Pharmacotherapy II
1998	Pharm 784 Therapeutic Drug Monitoring and Drug Induced Disease
1994 - 1998	Pharm 787 Advanced Pathophysiology and Clinical Therapeutics I
1994 - 1999	Pharm 788 Advanced Pathophysiology and Clinical Therapeutics II

**Nuclear Education Online (NEO)**

2001 - present	Nuclear Physics for Radiopharmacists
----------------	--------------------------------------

**Massachusetts College of Pharmacy, School of Allied Health**

1991 - 1993	Radiopharmacy Experiential Laboratory
-------------	---------------------------------------

**Tufts University School of Medicine**

1991- 1993            Pharmacology and Clinical Applications of Radiopharmaceuticals

**University of Nebraska, Department of Biology**

1983                    Life Sciences 112 - Zoology Laboratory

1983                    Life Sciences 473/873 - Phycology Laboratory

**Graduate Students**

- Madur P. Vaidya:        Master of Science Pharmaceutical Sciences (Radiopharmacy) 1993  
 Thesis:                *The effect of selected variables on the stability of <sup>99m</sup>Tc-sestamibi (Cardiolite®).*  
 Faculty Advisor
- William Mulberry      Master of Science Pharmaceutical Sciences (Radiopharmacy) 1995  
 Thesis:                *The thromboembolic potential of normal saline compared with heparin for maintaining venous catheter patency.*  
 Faculty Advisor
- Francisco J. Souto:    Doctor of Philosophy, Chemical and Nuclear Engineering 2002  
 Dissertation:        *Investigation of the Effects of Radiolytic Gas Bubbles on the Long-Term Operation of Solution Reactors for Medical Isotope Production*  
 Member, Committee on Studies
- Jason Kitten:            Master of Science Pharmaceutical Sciences (Radiopharmacy) 2002  
 Thesis:                *The production of medically useful vanadium radioisotopes from thin solid target materials using novel applications of chemical separation techniques.*  
 Chair, Committee on Studies
- Stephanie Boone      Master of Science Pharmaceutical Sciences (Radiopharmacy)  
 Thesis:                *Internal radiation dosimetry of inhaled transuranic radionuclides in man.*  
 Chair, Committee on Studies
- Amit Ahuja              Master of Science Pharmaceutical Sciences (Radiopharmacy)  
 Thesis:                *Particle size and lung deposition characteristics of aerosol medications*  
*Anticipated May 2004*  
 Chair, Committee on Studies
- Tapan Nayak            Master of Science Pharmaceutical Sciences (Radiopharmacy)  
 Thesis:                *Enhancement of somatostatin peptide receptor radionuclide therapy using gemcitabine pretreatment*  
*Anticipated May 2004*  
 Chair, Committee on Studies
- Rahul Poria             Master of Science Pharmaceutical Sciences (Radiopharmacy)  
 Thesis                 *Radiolabeling and in vitro/in vivo characterization of LFA-1, a novel diagnostic and therapeutic radiopharmaceutical for use in myeloid leukemias.*  
*Anticipated May 2005*  
 Chair, Committee on Studies

**UNM General Clinical Research Center Scholar Mentoring**

Amy Barton-Pai, PharmD    Cytochrome P450 3A4 enzyme activity in iron deficient chronic  
 4/2003 - present                hemodialysis patients with or without diabetes mellitus. (Co-I)

Valerie Leggott-Romero, MD   Addressing cultural diversity in medical school curriculum.  
 8/2003 - present

## PUBLICATIONS

### Peer-Reviewed Publications:

1. **Norenberg JP**, Simpson NR, Dunn BB, Kiesewetter DO. Remote synthesis of [ $^{11}\text{C}$ ]acetate. *International Journal of Applied Radiation Isotopes* 1992;43:943-945.
2. **Norenberg JP**, Hladik WB. Low osmolar contrast agents: pharmacoeconomic and medicolegal issues surrounding their use. *Journal of Pharmacy Practice* 1994;7:84-88.
3. Hladik WB, **Norenberg JP**. How drug-radiopharmaceutical interactions interfere with patient care. *Drug Interactions & Updates Quarterly* 1994;14:785-789.
4. **Norenberg JP**. A difficult therapeutic problem with a nuclear medicine solution: a case report. [letter] *Journal of Nuclear Medicine Technology* 1996;(1):67-68.
5. Rhodes BA, Hladik WB, **Norenberg JP**. Clinical radiopharmacy: principles and practices. *Seminars in Nuclear Medicine* 1996;26(2):77-84.
6. Hladik WB, **Norenberg JP**. Problems associated with the clinical use of radiopharmaceuticals: a proposed classification system and troubleshooting guide. *European Journal of Nuclear Medicine* 1996;23:997-1002.
7. **Norenberg JP**, Hladik WB. Therapeutic drug monitoring using nuclear medicine techniques. *Correspondence Continuing Education Courses for Nuclear Pharmacists and Nuclear Medicine Professionals* Vol. IV No. 5, 1996.
8. Hladik WB, **Norenberg JP**. Drug-radiopharmaceutical interactions: An update. *Correspondence Continuing Education Courses for Nuclear Pharmacists and Nuclear Medicine Professionals* Vol. IV No. 6, 1996.
9. Augustine SC, **Norenberg JP**, Colcher DM, Vose JM, Gobar LS, Dukat VJ, Hohenstein MA, Rutar FJ, Jacobson DA, Tempero MA. The Nuclear Pharmacist's Role in Bexxar<sup>TM</sup> – Combination Therapy for Non-Hodgkin's Lymphoma: Model for Pharmaceutical Care in a Specialty Practice. *Journal of American Pharmaceutical Association* 2002;42(1):93-100.
10. Augustine SC, **Norenberg JP**. The treatment of non-Hodgkin's lymphoma with radiopharmaceuticals. *Correspondence Continuing Education Courses for Nuclear Pharmacists and Nuclear Medicine Professionals* Vol. IX No. 6, 2002.
11. Augustine SA, Colcher D, Rutar F, **Norenberg JP**, Vang K. Determination and control of volitalized  $^{131}\text{I}$  released in the preparation of  $^{131}\text{I}$  dosages for BEXXAR<sup>®</sup> radioimmunotherapy. *Journal of American Pharmaceutical Association*, 2003;43(5):646-648.
12. Verschraegen CF, Lee FC, Cathcart C, Smith HD, **Norenberg JP**. TLK286. *Current Opinions in Oncology*, in press.
13. **Norenberg JP**, Achusim LE, Steel TH, Anderson TA. Stability of lorazepam aqueous solutions in polyolefin bags. *Journal of American Health-System Pharmacy*, in press.

**Books and Chapters in Books:**

1. **Norenberg JP**, Hladik WB. Radiopharmaceuticals for pulmonary imaging. In: Henkin RE, Boles MA, Karesh SM, et al. eds. Nuclear Medicine: Principles and Practices. St. Louis: Mosby-Year Book, Inc, 1996, pp 1362-1381.
2. Hladik WB, **Norenberg JP**. Radiopharmaceuticals for hepatobiliary imaging. In: Henkin RE, Boles MA, Karesh SM, et al. eds. Nuclear Medicine: Principles and Practices. St. Louis: Mosby-Year Book, Inc, 1996, pp 966-976.
3. Hladik WB, **Norenberg JP**. Radiopharmaceuticals for liver/spleen imaging. In: Henkin RE, Boles MA, Karesh SM, et al. Eds. Nuclear Medicine: Principles and Practices. St. Louis: Mosby-Year Book, Inc, 1996 pp 986-996.
4. Hladik WB, **Norenberg JP**. Regulations pertinent to the practice of nuclear pharmacy in the United States. In Sampson CB, ed. Textbook of Radiopharmacy--Theory and Practice, 3rd edition. Langhorne, PA: Gordon and Breach Science Publishers, 1999 pp 263-270.
5. Hladik WB, **Norenberg JP**. Fundamentals of radionuclides. In: Remington's Pharmaceutical Sciences, 20<sup>th</sup> edition. Philadelphia, PA: Mack Publishing Company for the Philadelphia College of Pharmacy, 2000, pp 469-482.
6. Hladik WB, **Norenberg JP**, Sampson CB. Drug interactions with radiopharmaceuticals: an overview of the concept. In: Sampson CB, Hladik WB, Laven DL, Eds. International Handbook of Drug-Radiopharmaceutical Interactions. London: Gordon and Breach Science Publishers, in press.
7. **Norenberg JP**. Nuclear Physics for Radiopharmacists. Albuquerque, NM, University of New Mexico, 2001. Currently posted on Nuclear Education Online WebCT site: [http://webct.uams.edu/SCRIPT/IRE02/scripts/serve\\_home](http://webct.uams.edu/SCRIPT/IRE02/scripts/serve_home).
8. Dragotakes SC, **Norenberg JP**. Nuclear Pharmacy. In: Shargel L, Mutnick A, Souney P, eds. Comprehensive Pharmacy Review, Fifth Edition. Philadelphia: Lippincott Williams & Wilkins, 2003, pp 393-417.

**Miscellaneous Publications:**

1. **Norenberg JP**, Hladik WB. Clinical problems involving radiopharmaceuticals. In Laven DL, editor. Proceedings of the second annual nuclear pharmacy lecture series. Tallahassee, Florida: Florida Pharmaceutical Association, 1993, pp III 1-9.
2. **Norenberg JP**. Radiopharmaceutical aides in the detection of breast cancer. *El Boticario* 1996;43(3)10.
3. **Norenberg JP**. Nuclear medicine imaging for the early detection of breast cancer. *The Pager*, November 1999, p 7.
4. **Norenberg JP**. Radioimmunotherapy of B-cell lymphomas. In Laven DL, editor. Proceedings of the twelfth annual nuclear pharmacy lecture series. Orlando, Florida: Florida Pharmaceutical Association, 2003.

**Abstracts:**

1. **Norenberg JP**, Hladik WB. Quantifying the cognitive role of radiopharmacists in their practice of pharmacy. 137th Annual Meeting of the American Pharmaceutical Association, Washington, DC; March 11-13, 1990.
2. **Norenberg JP**, Hladik WB. Low osmolar contrast agents: pharmacoeconomic and medical-legal issues surrounding their use. 141st Annual Meeting of the American Pharmaceutical Association. Seattle, Washington; March 20, 1994.
3. **Norenberg JP**, Roberts BB, Koerner A, Hartshorne MF. Regional cerebral blood flow (rCBF) measured by multiple SPECT acquisitions following a single injection of  $^{99m}\text{Tc}$ -HMPAO with and without acetazolamide (ACZ). 44th Annual Meeting of the Southwest Chapter, Society of Nuclear Medicine, Santa Fé, New Mexico; March 26-28, 1999.
4. **Norenberg JP**, Krenning BJ, Konings IR, de Jong M, Srinivasan A, Garmestani K, Brechbiel MW, Kvols LK.  $^{213}\text{Bi}$ -[DOTA<sup>0</sup>, TYR<sup>3</sup>]Octrotide (Bi-DOTATOC) in peptide receptor radionuclide therapy (PRRT): radiolabeling, stability, and biodistribution. 44th Annual Meeting of the Southwest Chapter, Society of Nuclear Medicine, Santa Fé, New Mexico; March 26-28, 1999. *Clinical Nuclear Medicine* 1999;24(3):212.
5. **Norenberg JP**, Krenning BJ, Konings IR, de Jong M, Srinivasan A, Garmestani K, Brechbiel MW, Kvols LK.  $^{213}\text{Bi}$ -[DOTA<sup>0</sup>, TYR<sup>3</sup>] Octreotide (Bi-DOTATOC) in peptide receptor radionuclide therapy (PRRT): radiolabeling, stability, and biodistribution. Australian & New Zealand Society of Nuclear Medicine Annual Scientific Meeting, Perth, Western Australia; April 24-27, 1999. *Nuclear Medicine Communications* 1999;20(4):383.
6. **Norenberg JP**, Roberts BB, Koerner A, Hartshorne MF. Regional cerebral blood flow (rCBF) measured by multiple SPECT acquisitions following a single injection of  $^{99m}\text{Tc}$ -HMPAO with and without acetazolamide (ACZ). Australian & New Zealand Society of Nuclear Medicine Annual Scientific Meeting, Perth, Western Australia; April 24-27, 1999. *Nuclear Medicine Communications* 1999;20(4):364.
7. **Norenberg JP**, Krenning BJ, Konings IR, de Jong M, Srinivasan A, Garmestani K, Brechbiel MW, Kvols LK.  $^{213}\text{Bi}$ -[DOTA<sup>0</sup>, TYR<sup>3</sup>]Octreotide ( $^{213}\text{Bi}$ -DOTATOC) in peptide receptor radionuclide therapy (PRRT). 46th Annual Meeting of the Society of Nuclear Medicine, Los Angeles, California; June 7 1999. *Journal of Nuclear Medicine* 1999;40(5)suppl:103P.
8. **Norenberg JP**, Garmestani K, Krenning BJ, Konings IR, Atcher RW, de Jong M, Srinivasan A, Kvols LK, Brechbiel MW. Radiolabeling methods for the preparation of [ $^{213}\text{Bi}$ -DOTA<sup>0</sup>, TYR<sup>3</sup>]Octreotide ( $^{213}\text{Bi}$ -DOTATOC) for peptide receptor radionuclide therapy (PRRT). 46th Annual Meeting of the Society of Nuclear Medicine, Los Angeles, California; June 5 1999. *Journal of Nuclear Medicine* 1999;40(5)suppl:80P.

9. Kvols L, Pauwels S, Krenning E, Hartshorne M, Telepak R, **Norenberg J**, Jamar F, Valkema R, Smith C, Stoltz B. Phase I studies of  $^{86}\text{Y}$ -SMT487 and  $^{90}\text{Y}$ -SMT in patients with refractory somatostatin receptor positive neuroendocrine tumors. 12<sup>th</sup> International Conference on Monoclonal Antibodies, San Diego, California, October 14-16, 1999. Sponsored by the Kimmel Cancer Center. *Cancer Biotherapy* 1999
10. **Norenberg JP**, Anderson TL. Collaborative research with radioactive drugs. American Pharmaceutical Association 147<sup>th</sup> Annual Meeting. Washington, DC; March 2000
11. **Norenberg JP**. Documenting the value of pharmaceutical care consultations in the nuclear pharmacy setting. American Pharmaceutical Association 147<sup>th</sup> Annual Meeting. Washington, DC; March 11, 2000
12. **Norenberg JP**, Krenning BJ, Konings IR, de Jong M, Srinivasan A, Garmestani K, Brechbiel MW, Kvols LK.  $^{213}\text{Bi}$ -[DOTA<sup>0</sup>,TYR<sup>3</sup>] Octreotide (Bi-DOTATOC) in peptide receptor radionuclide therapy (PRRT): radiolabeling, stability, and biodistribution. American Pharmaceutical Association 147<sup>th</sup> Annual Meeting. Washington, DC; March 11, 2000
13. **Norenberg JP**, Roberts BB, Koerner A, Hartshorne MF. Regional cerebral blood flow (rCBF) measured by multiple SPECT acquisitions following a single injection of  $^{99\text{m}}\text{Tc}$ -HMPAO with and without acetazolamide (ACZ). American Pharmaceutical Association 147<sup>th</sup> Annual Meeting. Washington, DC; March 11, 2000
14. **Norenberg JP**, Anderson TL. Collaborative research with radioactive drugs. American College of Clinical Pharmacy, Spring Practice and Research Forum, April 2000, Monterey, California.
15. **Norenberg JP**. Documenting the value of pharmaceutical care consultations in the nuclear pharmacy setting. American College of Clinical Pharmacy, Spring Practice and Research Forum, April 2000, Monterey, California.
16. **Norenberg JP**, Krenning BJ, Konings IR, de Jong M, Srinivasan A, Garmestani K, Brechbiel MW, Kvols LK.  $^{213}\text{Bi}$ -[DOTA<sup>0</sup>,TYR<sup>3</sup>] Octreotide (Bi-DOTATOC) in peptide receptor radionuclide therapy (PRRT): radiolabeling, stability, and biodistribution. American College of Clinical Pharmacy, Spring Practice and Research Forum, April 2000, Monterey, California.
17. **Norenberg JP**, Roberts BB, Koerner A, Hartshorne MF. Regional cerebral blood flow (rCBF) measured by multiple SPECT acquisitions following a single injection of  $^{99\text{m}}\text{Tc}$ -HMPAO with and without acetazolamide (ACZ). American College of Clinical Pharmacy, Spring Practice and Research Forum, April 2000, Monterey, California.
18. Kvols L, Krenning E, Pauwels S, Valkema R, Jamar F, **Norenberg J**, Bakker WH, Stoltz B, Bruns C, Smith C. Phase I studies of  $^{90}\text{Y}$ -SMT in patients with somatostatin receptor positive neuroendocrine tumors. 36<sup>th</sup> American Society of Clinical Oncology Annual Meeting, May 20-23, 2000, New Orleans, Louisiana.

19. Koerner A, Roberts BB, **Norenberg JP**, Sanders, Arata LK, Hartshorne MH. Brain single photon emission computed tomography and magnetic resonance imaging volume co-registration: Reproducibility of a new methodology. *Journal of Cognitive Neuroscience*; 2000;suppl.S, p.128.
20. Valkema R, Jamar F, Jonard P, Bakker WH, **Norenberg J**, Hadley J, Smith C, Kvolts L, Pauwels S, Krenning EP. Targeted radiotherapy with <sup>90</sup>Y-DOTA-Tyr<sup>3</sup>-octreotide (<sup>90</sup>Y-SMT487; OctreoTher<sup>TM</sup>): a phase I study. 47th Annual Meeting of the Society of Nuclear Medicine, June 2000, St. Louis, Missouri.
21. Augustine S, Tempero MA, Gobar LS, Devish K, Colcher D, Baranowska-Kortylewicz J, Rutar F, **Norenberg J**. Radiolabeling, quality control testing and in vitro stability evaluation of I-131 HuCC49ΔC<sub>H</sub>2 monoclonal antibody. 47th Annual Meeting of the Society of Nuclear Medicine, June 2000, St. Louis, Missouri.
22. Augustine SC, **Norenberg JP**, Tempero MA, Gobar LS, Devish KM, Colcher DM, Kortylewicz JB, Rutar FJ. valuation of I131 HuCC49DC<sub>H</sub>2 monoclonal antibody for translation to clinical studies. American Society of Health-System Pharmacists Midyear Clinical Meeting, December 2000, Las Vegas, Nevada.
23. Valkema, Jamar F, Bakker WH, **Norenberg JP**, Smith C, Stolz B, Kvolts LK, Pauwels S, Krenning EP. Safety And Efficacy Of [Y-90-Dota,Tyr(3)]-Octreotide (Y-90-Smt487; Octreother<sup>TM</sup>) Peptide Receptor Radionuclide Therapy (PRRT). Preliminary Results Of A Phase-1 Study. European Association of Nuclear Medicine Annual Meeting, Naples, Italy. March 15, 2001.
24. Krenning BJ, Konings IR, **Norenberg JP**, De Jong M, Kvolts LK, Kusewitt DF. Long-Term Histological Organ Damage In Animals Following Peptide Receptor Radionuclide Therapy (PRRT) With High Doses Of <sup>90</sup>Y- And <sup>111</sup>In-Labeled [Dota<sup>0</sup>,Tyr<sup>3</sup>]Octreotide (DOTATOC). 48th Annual Meeting of the Society of Nuclear Medicine, June 2001, Toronto, Canada. *Journal of Nuclear Medicine*;May 2001;v42(5)suppl.S, p.37P-38P.
25. **Norenberg JP**, Hilliard NL, Wittstrom KM, Pickett MW, Mann PL, Thaxton P, Rhodes BA. Radiopharmacist Education Using The Nuclear Education Online Program. American Association of Colleges of Pharmacy Annual Meeting, July 2001, Toronto, Canada.
26. **Norenberg JP**, Krenning BJ, Konings IR, De Jong M, Garmestani K, Brechbeil MW, Atcher RW, Kusewitt DF, Garmestani K, Brechbiel MW, Kvolts LK. Safety and efficacy of <sup>213</sup>Bi-[DOTA<sup>0</sup>,Tyr<sup>3</sup>]octreotide (Bi-DOTATOC) in peptide receptor radionuclide therapy (PRRT) of neuroendocrine tumors in a pre-clinical model. 2001 AACR-NCI-EORTC International Conference on Molecular Targets and Cancer Therapeutics, October 2001, Miami, Florida. *Clinical Cancer Research*; Nov 2001;v7(11), suppl.S, p.3732S.
27. **Norenberg JP**, Ringer RJ, Krenning BJ, Konings IR, Bigman GH, Atcher RW, Garmestani K, Brechbeil M, de Jong M, Kvolts LK. Radiation Absorbed Dose Estimates For Intravenously Injected <sup>213</sup>Bismuth-[DOTA]TYR3,Octreotide In Peptide Receptor Radionuclide Therapy. Seventh International Radiopharmaceutical Dosimetry Symposium, April 17-19, 2002, Nashville, TN, USA.

28. **Norenberg JP**, Krenning BJ, Konings IR, De Jong M, Garmestani K, Brechbeil MW, Atcher RW, Kusewitt DF, Garmestani K, Brechbiel MW, Kvols LK. Safety and efficacy of  $^{213}\text{Bi}$ -[DOTA<sup>0</sup>,Tyr<sup>3</sup>]octreotide (Bi-DOTATOC) in peptide receptor radionuclide therapy (PRRT) of neuroendocrine tumors in a pre-clinical model. American College of Clinical Pharmacists Annual Meeting, October 2002, Albuquerque, NM.
29. Borrego ME, Wittstrom KW, **Norenberg JP**. A national survey of radiopharmacists' education/training satisfaction, job satisfaction, and practice patterns: A work in progress. American Association of Colleges of Pharmacy Annual Meeting. Minneapolis, MN July 2003.
30. Alverson DC, Saiki SM Jr, Jacobs J, Saland L, Keep MF, **Norenberg JP**, Baker R, Nakatsu C, Kalishman S, Lindberg M, Wax D, Mowafi M, Summers KL, Holten JR IV, Greenfield JA, Aalseth E, Nickles D, Sherstyuk A, Haines K, Caudell TP. Distributed interactive virtual environments for collaborative experiential learning and training independent of distance over internet2. The 12<sup>th</sup> Annual Medicine Meets Virtual Reality Conference, Newport Beach, California, January 14-17, 2003.

### Editorial Positions

*UNM COP Continuing Education Courses for Nuclear Pharmacists and Nuclear Medicine Professionals* (six lessons per volume, one volume per year) 1996 - present.

### Invited Reviewer

1. Society of Nuclear Medicine Annual Meeting reviewer, 2003.
2. American Pharmaceutical Association reviewer, 1999, 2001, 2002.
3. New Perspectives in Cancer Diagnosis and Management, Meniscus, Inc., 1999.
4. Journal of the American Pharmaceutical Association, 1998.
5. Blue Cross National Magazine. Wellman Publishing, 1997.
6. American Journal of Hospital Pharmacy (name changed in 1995 to American Journal of Health-System Pharmacists), 1991.

### Manuscripts Submitted:

1. **Norenberg JP**, Vaidya MP, Hladik WB, Pathak DR, Born JL, Carroll TR. The effect of selected variables on the stability of  $^{99\text{m}}\text{Tc}$ -sestamibi (Cardiolite<sup>®</sup>). Submitted to the *Journal of Nuclear Medicine Technology*, submitted November 2003.

## GRANTS AND CONTRACTS

### Investigator-initiated

1. Roberts BB, **Norenberg JP** (Co-I). Effects of acetazolamide on regional cerebral blood flow in schizophrenics. Funded by NARSAD as a Young Investigator Award 1997 - 1999. (\$60,000).
2. Kvols LK, **Norenberg JP** (Co-I). Comparison of side-effects in animals given treatment with somatostatin analogs labeled with various radionuclides showing tissue penetrations between 10  $\mu$ m and 10 mm. Funded by Somatostatin Peptide Imaging and Radioimmunotherapy (SPIRIT) through an unrestricted grant from Mallinckrodt Medical. June 1998 - July 1999; July 1999 - December 1999 (\$108,000).
3. **Norenberg JP** (PI), Kvols LK.  $^{213}\text{Bi}$ -[DOTA<sup>0</sup>,TYR<sup>3</sup>]Octreotide ( $^{213}\text{Bi}$ -DOTATOC) in peptide receptor radionuclide therapy (PRRT), radiolabeling methods, in vitro/in vivo stability, and tumor effects in the CA20948 pancreatic adenoma pre-clinical model. Funded by SPIRIT June 1998 - July 1999 (\$27,000).
4. **Norenberg JP** (PI). A novel system to produce sterile water for injection from potable water. Funded by Office of Naval Research STTR Program October 1999 – December 1999 (\$20,000).
5. **Norenberg JP** (PI), Rabinowitz I. Efficacy of octreotide (OCT) in combination with interferon (IFN) plus thalidomide (TL), in patients with somatostatin receptor positive hepatocellular carcinoma. American Association of Cancer Research, 2000 (not funded).
6. **Norenberg JP** (PI). A novel system to produce sterile water for injection from potable water. Funded by Office of Naval Research STTR Program January 2001 – June 2002 (\$150,000).
7. **Norenberg JP** (PI). Nuclear Pharmacy Graduate Education. Funded by the Department of Energy, Advanced Nuclear Medicine Initiative (ANMI) Nuclear Medicine Education Awards (NMEA) Program July 2001 - June 2004 (\$300,000).
8. Ketai L, Marshik P, **Norenberg JP** (Co-I), Raissy H, Welch SM, Telepak R, Zhou Y, Cheng YS, Kelly HW. Comparison of the deposition pattern of HFA propelled albuterol with and without a holding chamber (Aerochamber®) in normal adults. Investigator funded June 2001 - December 2003 (\$30,000).
9. Pai MP, **Norenberg JP** (Co-I), Telepak RJ. Assessment of effective renal plasma flow, enzymuria and cytokine release during the administration of Amphotericin B in healthy volunteers. University of New Mexico General Clinical Research Center (\$11,292).
10. **Norenberg JP** (PI), James D, Mapel D, Ketai L. A Phase I study of a  $^{14}\text{C}$ -labeled polypeptide to establish pharmacokinetics and safety in man. MoliChem R&D October 2002 - July 2004 (\$130,000).

11. Alverson D, Saiki SM, Caudell TP, Jacobs J, Mitchell S, Shipp Buchanan H, Kalishman S, Wax D, Mennin S, Wilks D, **Norenberg JP** (Co-I), Shuster G, Saland L. Project TOUCH (Telehealth Outreach for Unified Community Health): Improving healthcare in remote, multicultural environments through the use of telehealth techniques. US Health Resources and Services Administration August 2000 - August 2004 (\$3,059,964).
12. Pai AB, Spalding CT, **Norenberg JP** (Co-I), Boyd A, Maholic A, Telepak RJ. Cytochrome P450 3A4 enzyme activity in iron deficient chronic hemodialysis patients with or without diabetes mellitus. University of New Mexico General Clinical Research Center April 2003 - June 2004 (\$11,831).
13. Pai AB, Zager G, Zager R, **Norenberg JP** (Co-I). Comparison of markers of oxidative stress in hemodialysis patients receiving iron dextran, sodium ferric gluconate and iron sucrose. American College of Clinical Pharmacy Anemia Research Award and University of New Mexico General Clinical Research Center (\$ 20,946).

### Industry sponsored (contract) research

1. Quenzer RW, **Norenberg JP** (Co-I), Danska JM, Telepak RJ, Spaeth J, Mettler FA. Evaluation of the safety and efficacy of Tc-99m labeled anti-granulocyte antibody Fab' fragment (IMMU-MN3) in the detection of infection of prosthetic joints. Funded by Immunomedics, Inc., September 1993 - May 1996. (\$20,000).
2. Quenzer RW, **Norenberg JP** (Co-I), Danska JM, Telepak RJ, Spaeth J, Mettler FA. Evaluation of the safety and efficacy of Tc-99m labeled anti-granulocyte antibody Fab' fragment (IMMU-MN3) for the diagnosis of osteomyelitis in patients with diabetic foot ulcers. Funded by Immunomedics, Inc., September 1993 - May 1996. (\$45,000).
3. Quenzer RW, **Norenberg JP** (Co-I), Danska JM, Telepak RJ, Spaeth J, Mettler FA. Evaluation of the safety and efficacy of Tc-99m labeled anti-granulocyte antibody Fab' fragment (IMMU-MN3) for the diagnosis of long bone osteomyelitis. Funded by Immunomedics, Inc., September 1993 - May 1996. (\$35,000).
4. Kvols LK, Krenning EP, **Norenberg JP** (Co-I), Hartshorne MF, Telepak RJ, Mettler FA, Elias E, Lyons CR, Mangalik A, Saiki J, Cathcart C, Chang B, Clark D, Purdy M, Saiers JH. A phase I, open-labeled, maximum tolerated single-cycle and four-cycle dose finding study to evaluate the safety and tolerability of <sup>90</sup>Y-SMT 487 administered by intravenous infusion to subjects with refractory somatostatin-receptor positive tumors (IND# 53442). Funded by Novartis Pharmaceuticals Corporation. August 1997 - August 1999 (\$722,177).
5. **Norenberg JP** (PI). <sup>90</sup>Y-SMT 487 production and quality control for a Phase I, open label, maximum tolerated single-cycle and four-cycle dose-finding study to evaluate the safety and tolerability of <sup>90</sup>Y-SMT 487 administered by intravenous infusion to subjects with refractory somatostatin-receptor positive tumors. Funded by Mallinckrodt Medical B.V. October 1997 - October 1999 (\$84,000).
6. Rabinowitz I, **Norenberg JP** (Co-I), Telepak RJ. Expanded access study of iodine-131 anti-B1 antibody for relapsed/refractory low-grade non-Hodgkin's lymphoma. Corixa Pharmaceuticals. CRT0299C August 2000 - December 2002.

7. Rabinowitz I, **Norenberg JP** (Co-I), Telepak RJ. A multicenter, open label trial to evaluate the efficacy and safety of IDEC-Y2B8 radioimmunotherapy of relapsed or refractory low-grade or follicular transformed B-cell non-Hodgkin's lymphoma. IDEC Pharmaceuticals February 2001 - 2002.
8. **Norenberg JP** (PI). Manufacture of <sup>14</sup>C-MoliChem 1901 investigational drug under cGMP conditions for use in clinical research. MoliChem R&D August 2002-November 2002 (\$68,547).
9. **Norenberg JP** (PI). GMP production of <sup>13</sup>C-labeled investigational drugs for use in the clinical research protocol, "A 20-week, open labeled, randomized, multicenter study comparing the effects of pioglitazone (Actos<sup>®</sup>), rosiglitazone (Avandia<sup>®</sup>), or metformin (Glucophage<sup>®</sup>) in addition to sulfonylurea on circulating lipids and lipoprotein kinetics in patients with type 2 diabetes mellitus." NIH subcontract August 2002-June 2003 (\$27,800).

## INVITED PRESENTATIONS

1. Pyrogens: their importance in the production of PET radiopharmaceuticals. PET Cyclotron Facility, National Institutes of Health. Bethesda, MD; June 1989.
2. Nuclear pharmacy inspection. Workshop: 89<sup>th</sup> Annual Meeting of the National Association of Boards of Pharmacy. Baltimore, MD; May 25, 1993.
3. Clinical problems involving radiopharmaceuticals. 2<sup>nd</sup> Annual Nuclear Pharmacy Lecture Series, Florida Pharmacy Association Annual Meeting, Orlando, FL; July 10, 1993.
4. The status of pharmaceutical care in nuclear pharmacy in 1996: a report of the Pharmaceutical Care Subcommittee, Scientific and Professional Affairs Committee, Section on Nuclear Pharmacy, Academy of Pharmacy Practice and Management. 143<sup>rd</sup> Annual Meeting, American Pharmaceutical Association, Nashville, TN; March 9, 1996.
5. Pharmaceutical care opportunities in institutional nuclear pharmacy practice. 144<sup>th</sup> Annual Meeting, American Pharmaceutical Association, Los Angeles, CA; March 10, 1997.
6. Pharmaceutical care committee report. Pharmaceutical Care Subcommittee, Scientific and Professional Affairs Committee, Nuclear Pharmacy Section, Academy of Pharmacy Practice and Management. 145<sup>th</sup> Annual Meeting, American Pharmaceutical Association, Miami Beach, FL; March 22, 1998.
7. Pharmaceutical care opportunities in nuclear pharmacy: results of a six-month, nationwide demonstration project documenting radiopharmacist's provision of pharmaceutical care. 146<sup>th</sup> Annual Meeting, American Pharmaceutical Association, San Antonio, TX; March 8, 1999.
8. Comparison of side effects in animals given treatment with somatostatin analogs labeled with various radionuclides showing tissue penetrations between 10  $\mu$ m and 10 mm. SPIRIT Research Symposium, Rotterdam, The Netherlands; March 29-30, 1999.

9. An overview of correlative imaging techniques using SPECT-fusion with MRI and CT. Geelong Hospital, Medical Imaging Department, Geelong, Victoria, Australia; April 29, 1999.
10. Hospital-based clinical and pre-clinical radiopharmacy series: collaborative research using radioactive drugs. H. Lee Moffitt Cancer Center and Research Institute at the University of South Florida, Tampa, FL, December 10 and 13, 1999.
11. Pharmaceutical care opportunities for nuclear pharmacists caring for patients receiving therapeutic radiopharmaceuticals. 147<sup>th</sup> Annual Meeting, American Pharmaceutical Association, Washington, DC; March 11, 2000.
12. Radioimmunotherapy of non-Hodgkin's B-cell lymphomas. New Mexico Association of Nuclear Medicine Technologists, Annual Education Program. October 21, 2000.
13. Advances in radioimmunotherapy of non-Hodgkin's B-cell lymphomas. New Mexico Association of Nuclear Medicine Technologists, Annual Education Program, Albuquerque, NM, November 10, 2001.
14. <sup>90</sup>Y and the radiopharmacy. Workshop on <sup>90</sup>Y measurement and standardization. National Institutes of Standards and Technology, Gaithersburg, MD, December 7, 2001.
15. Medical use of byproduct material development of licensing guidance – Therapeutic applications public workshop/roundtable discussion. United States Nuclear Regulatory Commission (NRC), NRC Headquarters Auditorium, Rockville, MD. April 25, 2002.
16. Targeted therapy of somatostatin-receptor expressing tumors using radiolabeled peptides. UNM Health Sciences Center, Cancer Research and Treatment Center Leadership Group, Albuquerque, NM. August 27, 2002.
17. Advances in radioimmunotherapy of non-Hodgkin's B-cell lymphomas. Arizona Society of Nuclear Medicine Technologists Section, Annual Education Program, Phoenix, AZ, December 7, 2002.
18. Radioimmunotherapy of B-cell Lymphomas. Florida Pharmacists Association APP Mid-Year Clinical Conference, Orlando, FL, November 15, 2003.
19. The National Association Of Nuclear Pharmacies: Council On Radionuclides And Radiopharmaceuticals (CORAR, December 9 and 10, 2003, Washington, DC.

## **PROFESSIONAL AWARDS/HONORS RECEIVED**

- 1985 Sarah Welch Outstanding Achievement Scholarship
- 1989-91 Dean's List, College of Pharmacy, University of New Mexico
- 1989 American Pharmaceutical Association Patient Counseling Competition, 3rd Place  
University of New Mexico College of Pharmacy
- 1990 United States Public Health Service Outstanding Achievement Citation
- 1990 Department of Interior Meritorious Service Commendation
- 1990 Kappa Psi Pharmaceutical Fraternity Scholarship Award
- 1991 Rho Chi Scholastic Pharmacy Honor Society
- 2000 Fellow, American Society of Health-System Pharmacists (ASHP)
- 2003 Fellow, American Pharmacists Association (APhA)

## **COLLEGE OF PHARMACY COMMITTEES**

- Facilities and Space Utilization Committee, 2003 - present
- Faculty Compensation Task Force - Pharmacy Practice, 2003-present
- Nuclear Education Online Executive Committee, 2000 – present
- Graduate Committee, 1998 - present
  - Chair, Radiopharmaceutical Sciences Graduate Concentration, 1998 - present
- Faculty Support Committee, 1995 - 1998
- Student Services Committee, 1999 - 2001
- Pharmacy Administration Faculty Search, 2001
- Emergency Student Loan Committee, 2001 - 2003

## **UNIVERSITY COMMITTEES**

- University of New Mexico Health Sciences Center
  - Center for Disaster Medicine, Disaster Medicine Assistance Team, 1989 - present
    - Executive Committee, 1993 - 2003
    - Chief Pharmacy Officer, 1993 - 2003
    - Chair, Formulary Subcommittee, 1993 - 2003
  - National Disaster Medicine System (NDMS) Formulary Committee 1995 -2002
  - General Clinical Research Center (GCRC)
    - Scientific Advisory Committee 1995 – present, Chair 1998 – present
    - Mentor, GCRC Scholar's Program 2003 - present
  - Disaster Committee, 1995 - 2003
  - Pharmacy and Therapeutics (P&T) Committee, 1999 - 2003
    - Imaging Agents Subcommittee of the P&T Committee, 1996 - 2002
    - Chair 1998 – 2002
    - Adverse Event Subcommittee, 1999 - 2003
- University of New Mexico
  - Conflict of Interest Committee, 2000 - 2001
  - Radiation Control Committee, Human Uses Subcommittee, 1999 – present
  - Human Research Review Committee (IRB), Ad Hoc Drug and Biochemical Safety Committee, 2002 – present

- New England Medical Center Hospitals and Tufts University School of Medicine
  - Radiation Safety Committee, 1991 - 1993
  - Human Uses Subcommittee, 1991 - 1993
  - Radiologic Drug Research Committee (RDRC), 1991 - 1993
  - Vice-Chair, 1991 - 1993

## PROFESSIONAL ACTIVITIES

American Association of Colleges of Pharmacy (AACP), 1994 - present

American College of Clinical Pharmacy (ACCP), 1995 - present  
Hematology and Oncology Practice and Research Network

American Pharmaceutical Association (APhA), 1988 – present

APhA Committee on Nominations, 2003 - 2004

Academy of Pharmacy Practice and Management (APPM), 1988 - present

Section on Nuclear Pharmacy (SNP), 1988 - present

Scientific and Professional Affairs Committee, 1994 – present

Educational Program Committee, 1991 - 1993, 1995 – 1996

Pharmacy Technicians in Nuclear Pharmacy Subcommittee, Chair 1994 – 1995

Nuclear Pharmacy Practice Bibliography Subcommittee, 1994 – 1995

Practitioner Information Network (PIN), 1995 – 1998

Pharmaceutical Care Subcommittee, 1995 - 1996, 1999 – present

Chair, 1996 – 1999

Section of Specialized Pharmaceutical Services (SPS), 1990 – present

Moderator/Coordinator of Educational Programs:

Pharmaceutical Care in Nuclear Pharmacy Practice. 144<sup>th</sup> American Pharmaceutical Association Annual Meeting, Los Angeles, CA, March 10, 1997.

New Radiopharmaceutical Therapy Agents. 148<sup>th</sup> American Pharmaceutical Association Annual Meeting, San Francisco, CA, March 17, 2001.

Delegate, 139<sup>th</sup> Annual Meeting of the APhA, San Diego, CA, March 1992

Delegate, 145<sup>th</sup> Annual Meeting of the APhA, Miami Beach, FL, March 1998

Delegate, 146<sup>th</sup> Annual Meeting of the APhA, San Antonio, TX, March 1999

Member, New Business Committee, March 1999

Delegate, 148<sup>th</sup> Annual Meeting of the APhA, San Francisco, CA, March 2001

American Society of Health-System Pharmacists (ASHP), 1989 - present

Special Interest Group (SIG) on Radiologic Pharmacy Practice, 1996 - 2000

Faculty Liaison, ASHP Student Forum-UNM Chapter, 1996 - 2003

Section of Clinical Specialists, Radiologic Pharmacy and Home Health Care Section

Nuclear Pharmacy Facilitator, ASHP SCS Network Assemblies, December 11, 1996  
at the 31<sup>st</sup> Annual ASHP Midyear Clinical Meeting, New Orleans, LA, December 8-12, 1996.

Kappa Psi Pharmaceutical Fraternity

Gamma Rho Chapter, University of New Mexico, 1988 - present

Pledge Trainer, 1988; Vice-Regent, 1989; Regent, 1990;

Associate Grand Council Deputy, 1996 - 1998

Grand Council Deputy, 1998 - present

National Association of Nuclear Pharmacies

Executive Director and Chair, Board of Directors 2002 - present

Vice-Chair and Special Assistant to the Executive Director 2000-2002

New Mexico State Board of Pharmacy

Pharmacist Prescribing Committee 2001 - 2003t

New Mexico Society of Health-System Pharmacists (NMSHP), 1989 - present  
Student Affairs Committee, 1995 - 2002  
Legislative Affairs Committee, 1996 - 1998  
Chair-elect 1996 - 1998  
Chair 1998 - 2002

Rho Chi Scholastic Pharmacy Honor Society, 1991 - present  
Alternate Delegate, 139th Annual Meeting of the APhA, San Diego, CA, March 1992

Society of Nuclear Medicine, 1990 - present  
Radiopharmaceutical Sciences Council (RSC), Member 1994 - present.  
Secretary/Treasurer 2000 - 2002.  
Nuclear Oncology and Therapy Council, Member 1999 - present  
Board of Directors, 2001 - 2004  
Educational Program Coordinator, 45<sup>th</sup> Society of Nuclear Medicine Annual Meeting,  
Toronto, Canada, June 1998.

## **SPECIAL PROJECTS INVOLVEMENT**

1. Board of Pharmaceutical Specialties
  - a. Nuclear Pharmacy Specialty Certification Item Writer, 1992 – present
  - b. Item Writing Workshop, 1996, 1998, 2000, 2004
  - c. Strategic planning focus group, April 2003
2. Massachusetts College of Pharmacy and Allied Health, Advisory Panel on the Bachelor of Science in Nuclear Medicine Technology Program, 1992 - 1993.
3. National Atomic Museum, Albuquerque, New Mexico, Member of Planning and Advisory Committee for a large nuclear medicine exhibit (permanent and traveling), 1995 - 1997.

## **CONSULTATION PROVIDED**

- Metro Home Healthcare, Albuquerque, New Mexico, 1995 - 1997
- Martin-Marrietta, Sandia National Laboratories Isotope Production Facility (Technical Area V), Albuquerque, New Mexico, 1995, 1997, 1998, 2000
- Technologies of Radioactive Materials (TraM), Albuquerque, New Mexico, 1995 - 1998
- Technology Commercialization International, Inc. (dba TCI) Albuquerque, New Mexico, 1999 - 2002
- ISO-TEX Diagnostics, Inc. Friendswood, Texas, 1999 - present
- H. Lee Moffitt Cancer Center and Research Institute at the University of South Florida, Tampa, Florida, 1999 - 2000
- Diatide Research Laboratories, Berlex Laboratories, a division of Schering Plough Pharmaceuticals, Montville, New Jersey, 2001 – January 2003
- MoliChem R&D, Inc. Chapel Hill, North Carolina. July 2002 – June 2003

## **VOLUNTEER ACTIVITIES**

Federal Emergency Medical Administration (FEMA), National Disaster Medical Services (NDMS), Deployable Medical Assistance Team (DMAT), October 1989 - 1991, 1993 - present  
Deployments:

St. Croix, USVI, Hurricane Hugo Relief Team, October 1989  
Northridge, CA, Northridge Earthquake Relief Team, January 1994

Red Cross/United Blood Services:

8.6 Gallon Blood Donor, 69 Pints Donated 1978 - present

National Bone Marrow Donor Registry, 1993 - present

Kappa Psi Pharmaceutical Fraternity:

Daffodils for Hospice, Carrie Tingley Hospital Trick or Treat, Easter Egg Hunt for Bright Horizons, UNM-COP Drug Fair, COP Phonathon, Craft Workshop Albuquerque Manor

## **HOBBIES AND COMMUNITY INVOLVEMENT**

Cycling:

Greater Albuquerque Bicycling Advisory Committee: May 2001 - May 2004

City of Albuquerque zoning and planning subcommittee

Environmental Planning Commission, End of trip facilities task force July 2001 - 2003

League of American Bicyclists; New Mexico Touring Society

Santa Fé Century: 1998, 1999, 2001, 2002, 2003

Chile Pepper Challenge Century: 2001, 2002

Telluride to Moab: 1999

American Cycling Association, racing license (CAT IV)

Fly fishing

Shooting sports

Skiing

Hiking

Hunting

Camping