



**National Cancer Institute
Division of Cancer Biology
EPN Suite 500
Rockville, MD 20892-7380**

August 27, 1998

Dr. Paul Seligman
Deputy Assistant Secretary for Environment,
Safety and Health
EH6 Building 270CC
U.S. Department of Energy
19901 Germantown Road
Germantown, MD 20874-1290

Dear Dr. Seligman:

I would like to present for your concurrence our nominations for the U.S. members of the Advisory/Oversight Committee for the U.S. - Belarus Chernobyl Thyroid Study and the U.S. - Ukraine Chernobyl Thyroid Study. Regrettably, our internal nominations had to be revised several times, e.g., to avoid a conflict of interest after the selection of Columbia University as the technical and scientific management support contractor for these projects. I think the proposed membership has an appropriate balance of scientific and medical expertise to form an effective Advisory Group to address essentially all components of the studies, thereby meeting the specifications delineated in the approved protocols. Please inform me in writing at your earliest convenience of your concurrence with these nominations. If you have any comments or concerns, please feel free to call me directly at 301-496-8636.

I would also like to take this opportunity to invite you to attend the meeting of the National Cancer Advisory Board (NCAB) on September 10, 1998 at which NCI and Columbia University staff will present an overview of the U.S. - Belarus and U.S. - Ukraine Chernobyl Studies. A draft agenda is included for your information. The presentation is allocated 45 minutes, so we will have only two speakers: Dr. Bruce Wachholz (NCI) will present the development of these studies, and Dr. Geoffrey Howe (Columbia University) will discuss implementation of the projects. I hope you will be able to attend and participate in any discussion of our jointly sponsored studies following the presentations. Please let me know if you will attend so we can reserve a seat for you.

Sincerely,

Faye C. Austin, Ph.D.
Director
Division of Cancer Biology

Enclosures

cc: Dr. Klausner
Dr. Rabson
Dr. Wachholz

NOMINATIONS FOR
U.S. MEMBERS OF BINATIONAL ADVISORY COMMITTEES

David Becker, M.D.
Professor of Radiology and Medicine
Director of Nuclear Medicine
The New York Hospital-Cornell Medical Center
520 East 68th Street, Room L 205
New York, NY 10021

Tel: (212) 746-4583
FAX: (212) 746-8873
EMAIL: N/A

Radiation Thyroid
Endocrinology
Nuclear Medicine

Fred A. Mettler, Jr., M.D., M.P.H.
Professor and Chairman
Department of Radiology and Nuclear Medicine
University of New Mexico Hospital
2211 Lomas Boulevard
Albuquerque, New Mexico 87106

Tel: (505) 272-0011
FAX: (505) 277-5821
EMAIL: fmett@unm.edu

Radiology
Ultrasound
Nuclear Medicine
Radiation Biology

Bruce Napier
Pacific Northwest National Laboratory
P.O. Box 999
Richland, WA 99352

Tel: (509) 375-3896
FAX:
EMAIL: bruce.napier@pnl.gov

Dosimetry
Dose Reconstruction

Roy E. Shore, Ph.D.
Professor of Environmental Medicine
New York University Medical Center
341 East 25th Street, Room 208
New York, NY 10010

Tel: (212) 263-6500
FAX: (212) 263-8570
EMAIL: shorer01@mcgc16.med.nyu.edu

Radiation Epidemiology

Carole Spencer, Ph.D., M.T.
Clinical Research Center
Room 6602
LAC-USC Medical Center
1200 North State Street
Los Angeles, CA 90033

Tel: (323) 226-4962
FAX: (323) 226-4969
EMAIL: cspencer@hsc.usc.edu

Clinical Laboratory
Sciences

TENTATIVE* NCAB AGENDA

107th Meeting of the
National Cancer Advisory Board

Conference Room 10, C Wing, Building 31

WEDNESDAY, SEPTEMBER 9 - OPEN

- I. SUBCOMMITTEE MEETING - Planning and Budget Ms. Stovall
(Meeting at the Hyatt Regency Bethesda Ms. Nichols
- See Subcommittee listing)

THURSDAY, SEPTEMBER 10 - OPEN

9:00 a.m. - 9:15 a.m.

- II. CALL TO ORDER AND OPENING REMARKS Dr. Bishop
III. FUTURE BOARD MEETING DATES

Confirmed:

December 7-9, 1998	Monday, Tuesday, Wednesday
February 8-10, 1999	Monday, Tuesday, Wednesday
June 7-9, 1999	Monday, Tuesday, Wednesday
September 22-24, 1999	Wednesday, Thursday, Friday
December 6-8, 1999	Monday, Tuesday, Wednesday
February 14-16, 2000	Monday, Tuesday, Wednesday
June 12-14, 2000	Monday, Tuesday, Wednesday
September 11-13, 2000	Monday, Tuesday, Wednesday
December 4-6, 2000	Monday, Tuesday, Wednesday

(Evenings of the first day are available for scheduling subcommittee meetings.
Full Board meetings begin the next morning.)

9:15 a.m. - 10:15 a.m.

- IV. REPORT OF THE DIRECTOR, NCI Dr. Klausner

* Check online for the most recent version of the NCAB agenda:
<http://deainfo.nci.nih.gov/ADVISORY/boards.htm>

10:15 a.m. - 10:35 a.m.

V. REPORT OF THE PRESIDENT'S CANCER PANEL

Dr. Freeman

10:35 a.m. - 10:45 a.m.

VI. NEW BUSINESS - SESSION I

Members

10:45 a.m. - 11:00 a.m.

COFFEE BREAK

11:00 a.m. - 11:40 a.m.

VII. NCI PROSTATE CANCER PRG

Dr. Klausner
Dr. Scardino
Dr. Tindall

11:40 a.m. - 11:55 a.m.

DISCUSSION

11:55 a.m. - 12:30 p.m.

VIII. NCI BREAST CANCER PRG

Dr. Klausner
Dr. Davidson
Dr. Moses

12:30 p.m. - 12:50 p.m.

DISCUSSION

12:50 p.m. - 2:35 p.m.

LUNCH AND CENTERS SUBCOMMITTEE MEETING

2:35 p.m. - 2:55 p.m.

IX. MEMBER'S PERSPECTIVE/INTERESTS

Dr. Bishop

2:55 p.m. - 3:40 p.m.

X. CHERNOBYL UPDATE

Dr. Rabson
Dr. Austin
Dr. Wachholz
Dr. Howe ✓
Dr. Jackson ✓

3:40 p.m. - 4:00 p.m.

XI. LEGISLATIVE UPDATE

Ms. Foellmer

4:00 p.m.

XII. ADJOURNMENT OF OPEN SESSION

4:00 p.m. - 4:15 p.m.

COFFEE BREAK

4:15 p.m.- Adjournment

CLOSED SESSION

This portion of the meeting is being closed to the public in accordance with the provisions set forth in section 552b(4) and 552b(6)(c), Title 5, U.S. Code and Section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. Appendix 2).

XIII. SPECIAL ACTIONS SUBCOMMITTEE

Dr. Li
Dr. Kalt

Consideration of informational updates; human subject, gender and minority subject, biohazard and animal welfare problems; foreign grants; MERIT Awards; appeal letter; staff recommendations; staff informational items; Board Members' concerns on current grants.

XIV. EN BLOC

Dr. Bishop

CONFIDENTIAL ISSUES REGARDING STAFF
AND AWARDEES

Dr. Klausner

FRIDAY, SEPTEMBER 11- OPEN

9:00 a.m. - 10:00 a.m.

XV. NEW TRAINING INITIATIVES

Dr. Wittes
Dr. Kimes

10:00 a.m. - 10:45 a.m.

XVI. CANCER INFORMATION SERVICE RESPONSE TO
OFFICE OF THE INSPECTOR GENERAL REPORT

Ms. Hubbard
Ms. Thomsen
Dr. Wittes

10:45 a.m. - 11:00 a.m.

COFFEE BREAK

11:00 a.m. - 11:15 a.m.

XVII. SUBCOMMITTEE REPORTS AND NEW BUSINESS - SESSION II

11:15 a.m. - 11:40 a.m.

XVIII. INFORMED CONSENT REVISION INITIATIVE

Dr. Wittes
Ms. McCabe

11:40 a.m. - 11:55 a.m.

XIX. STREAMLINED REVIEW OF AMENDED P01s

Dr. Kalt

11:55 a.m. - 12:10 p.m.

XX. FUTURE AGENDA ITEMS

12:10 p.m.

ADJOURNMENT

SPEAKERS

Nancy Davidson, M.D.
Associate Professor of Oncology
The Johns Hopkins Oncology Center, Room 202
422 North Bond Street
Baltimore, MD 21231

Ms. Dorothy A. Foellmer
Legislative Liaison
National Cancer Institute
National Institutes of Health
Building 31, Room 10A47
31 Center Drive
Bethesda, MD 20892

Harold P. Freeman, M.D.
Director of Surgery
Harlem Hospital Center, Room 11-104
506 Lennox Avenue
New York, NY 10037

Geoffrey R. Howe, Ph.D.
Professor and Head
Division of Epidemiology
Joseph L. Mailman School of Public Health
Columbia University
622 West 168th Street (PH 18-119)
New York, NY 10032

Susan M. Hubbard, B.S., R.N., M.P.A.
Director
International Cancer Information Center
National Cancer Institute
National Institutes of Health
Building 82, Room 102
9030 Old Georgetown Road
Bethesda, MD 20892

Richard J. Jackson, M.D., M.P.H.
Director, National Center for Environmental Health
Center for Disease Control and Prevention
4770 Beauford Highway, NE - Mailstop F29
Atlanta, GA 30341

Brian Kimes, Ph.D.
Associate Director
Cancer Centers, Training and Resources Program
Office of the Deputy Director for Extramural Sciences
National Cancer Institute
National Institutes of Health
Executive Plaza North, Suite 520
6130 Executive Boulevard
Rockville, MD 20892

Mary McCabe, R.N.
Director
Office of Clinical Research Promotion
Office of the Deputy Director for Extramural Sciences
National Cancer Institute
National Institutes of Health
Building 31, Room 3A44
31 Center Drive-MS-C-2440
Bethesda, MD 20892

Harold Moses, M.D.
Director
Vanderbilt Cancer Center
Vanderbilt University Medical Center
649 Medical Research Building II
Nashville, TN 37232

Peter Scardino, M.D.
Chief of Urology
Head of Prostate Cancer Program
Memorial Sloan Kettering Cancer Center, Room C1061
1275 York Avenue
New York, NY 10021

**Ms. Chris Thomsen
Chief
Public Inquiries
Cancer Information Service Branch
Office of Cancer Information, Communication, and Education
National Cancer Institute
National Institutes of Health
Building 31, Room 10A16
31 Center Drive
Bethesda, MD 20892**

**Donald J. Tindall, Ph.D.
Professor
Department of Urology, Biochemical and Molecular Biology
Mayo Clinic Foundation
The Giggenheim Building, 1742C
200 First Street, SW
Rochester, MN 55905**

**Bruce W. Wachholz, Ph.D.
Chief
Radiation Effects Branch
Division of Cancer Biology
National Cancer Institute
National Institutes of Health
6130 Executive Boulevard, Room 530
Rockville, MD 20892**

SUBCOMMITTEE MEETINGS

Planning and Budget Subcommittee
OPEN- September 9 - 7:00 p.m. to 9:00 p.m.
Bethesda Hyatt Regency Hotel
Susquehanna Suite/Severn Suite

Centers Subcommittee
OPEN - September 10 - 1:15 p.m. to 3:00 p.m.
Building 31, Conference Room 10

CURRICULUM VITAE

NAME: David V. Becker, M.D.

ADDRESS: The New York Hospital-Cornell Medical Center
525 East 68th Street
New York, NY 10021

TELEPHONE: 212-746-4583

EDUCATION: College Columbia, A.B. - 1943
University Columbia University, M.A.
Psychology - 1944
Medical School New York University College
of Medicine, M.D. - 1948

FIELDS OF SPECIALIZATION:

Endocrinology
Nuclear Medicine

SPECIAL ORGANIZATIONS:

Fellow, American College of Physicians - 1967
Fellow, American College of Endocrinology -
1997

CERTIFICATION OF SPECIALTY BOARDS:

American Board of Nuclear Medicine
May 5, 1972
Certification Number: 01864
Medical Licensure: New York State, No. 70693

SOCIETY MEMBERSHIPS:

The American Thyroid Association
The Endocrine Society
The Society of Nuclear Medicine
American Association of Clinical
Endocrinology
American Federation for Clinical Research
American College of Physicians
American College of Endocrinology
New York Academy of Medicine

David V. Becker, M.D. 2

HOSPITAL APPOINTMENTS

- 1948-1949 Rotating Intern, Sinai Hospital of Baltimore, MD
- 1949-1950 Medical Intern, Maimonides Hospital of Brooklyn
New York
- 1952-1954 Director, Clinical Isotope Unit, Brooke Army
Hospital, Ft. Sam Houston, Texas
- 1954-1955 Resident, Department of Medicine, The New
York Hospital-Cornell Medical Center, New
York, NY
- 1955-1996 Director, Division of Nuclear Medicine, The
New York Hospital-Cornell Medical Center,
New York, NY
- 1971- Attending Radiologist (with Private Patient
Privileges), The New York Hospital-Cornell
Medical Center, New York, NY
- 1975- Attending Physician (with Private Patient
Privileges), The New York Hospital-Cornell
Medical Center, New York, NY

David V. Becker, M.D. 3

RESEARCH AND TEACHING APPOINTMENTS

- 1950-1952 Research Fellow, Departments of Clinical Investigation and Biophysics, Sloan-Kettering Institute, Damon Runyon, Clinical Cancer Fellow, New York, NY
- 1952-1954 Chief, Radioisotope Laboratory, Surgical Research Unit, Brooke Army Medical Center, Ft. Sam Houston, Texas
- 1972- Professor of Radiology, Cornell University Medical College, New York, NY
- 1975- Professor of Medicine, Cornell University Medical College, New York, NY

HONORS AND AWARDS

- Listed in "Best Doctors in the USA", for Endocrinology and Nuclear Medicine, 1979
- Listed in "Best Doctors in the Northeast", 1990
- Listed in "Best Doctors in New York", 1996
- Cornell University Alumni Association, Honorary Fellow, 1987
- Honorary Member, Medical Academia of SR Croatia (Medicinska Akademija Hrvatske) 1988
- Distinguished Service Award, American Thyroid Association, 1989
- Berson-Yalow Award, Greater NY Chapter, Society of Nuclear Medicine, 1990
- First "Boots Distinguished Lecturer in Endocrinology", Sinai Hospital, Baltimore, MD, March 1993
- Visiting Professor, Johns Hopkins Hospital, Thyroid Tumor Center, May, 1993
- White House Citation for Humanitarian Efforts, 1996
- Daniels Award of Society for Comparative Endocrinology for research on treatment of hyperthyroid cats with radioiodine, 1996

David V. Becker, M.D. 4

ORGANIZATIONAL POSITIONS

1957- Member, Society of Nuclear Medicine, New York, New York (June 22, 1957)

1958-1962 Representative from Cornell University Medical College, Organization Committee of the BioMedical Data Processing Center - The New York Center for Biomathematical Research New York, NY

1962-1967 Visiting Investigator at the Jackson Memorial Laboratories Bar Harbor, ME

1963-1990 Member, Technical Advisory Committee on Radiation to the Health Commissioner of the City of New York, NY

1966-1996 Chairman, Local Isotope Committee, The New York Hospital-Cornell Medical Center, New York, NY

1968- Steering Committee - U.S.P.H.S. Thyrotoxicosis Follow-Up Study

1969-1974 Curriculum Committee - Cornell University Medical College, New York, NY

1970-1979 Joint Review Committee on Education in Nuclear Medicine Technology of the AMA Council on Medical Education

1971-1979 AMA Advisory Committee on Education for the Allied Health Professions and Services and its Panel of Consultants

1973-1976 Advisory Committee on Medical Uses of Radioactive Materials - New York State Department of Health

1975-1981 Consultant - Pan American World Health Organization

1975-1980 Member - Task Force on Short Lived Radio-nuclides, Bureau of Radiological Health, Food and Drug Administration, U.S.P.H.S.

1976- Consultant - Bureau of Radiological Health, Food and Drug Administration

David V. Becker, M.D. 5

1976-1977 First Vice President - The American Thyroid Association

1976- Committee on Continuing Medical Education, Cornell University Medical College, New York, New York

1977-1978 Chairman, Education Committee, American Thyroid Association

1977-1993 Committee on Laboratories of the Medical Board, Cornell University Medical College, New York, New York

1978- Member - National Council on Radiation Protection & Measurement Scientific Committee No. 57

1978-1979 President - Greater New York Chapter of the Society of Nuclear Medicine, New York, NY

1978-1986 Trustee - National Society of Nuclear Medicine

1978-1980 Academic Programs Committee, Cornell University Medical College, New York, New York

1978-1983 Technical Advisory Committee on Radiation to the Health Commissioner of the City of New York

1978- National Cooperative Thyroid Cancer Treatment Study Group

1980-1991 Member - Committee on Environmental Health, New York Academy of Medicine, New York, NY

1980-1981 Chairman, Environmental Hazards Committee, The American Thyroid Association

1980-1981 Consultant - Medical Department, Brookhaven National Laboratory, Upton, New York

1981- Member - Working Group on Health Aspects of Radioactive Materials, Subcommittee on Environmental Health, The New York Academy of Medicine, New York, New York

1981-1990 Member - Publications Committee, The Society of Nuclear Medicine

1982-1984 Member - New York City Health Commissioner's Ad Hoc Study Committee for the Disposal of

David V. Becker, M.D. 6

Low Level Radioactive Wastes, New York, NY

1982-1983 President - The American Thyroid Association

1982-1986 Member - Medical Radiation Advisory Committee of the Food and Drug Administration

1983- Member - Ad Hoc Working Group on Thyroid/Iodine 131 Assessment, National Cancer Institute, Bethesda, MD

1984- Who's Who in America, 43rd Edition

1984- Fellow - New York Academy of Medicine, New York, New York

1984-1990 Member - Committee on Public Health, and its Executive Committee, New York Academy of Medicine, New York, New York

1984- Member - Thyrotoxicosis Follow-Up Study Group, National Cancer Institute, Bethesda, MD

1985-1990 Chairman, Working Group on Health Aspects of Radiation, New York Academy of Medicine, New York, New York

1985- Member - Medical Advisory Board, The Thyroid Foundation of America, Inc.

1987- Consultant - Office of Health Affairs/Center for Devices and Radiological Health (CDRH), Food and Drug Administration

1987- Consultant - Radiological Devices Panel/Center for Devices and Radiological Health (CDRH), Food and Drug Administration

1987-1990 Member - Scientific Advisory Committee on Radiation to the Department of Health of the City of New York

1987- Member - American Medical Association Radiation Advisory Committee

1987- Member - National Cancer Institute Thyroid/Iodine-131 Risk Assessments Committee

1987- Member - New York State Department of Health Radiological Health Advisory Committee of the Bureau of Environmental Radiation Protection

David V. Becker, M.D. 7

- 1988- Honorary Member - Medical Academy of SR Croatia (Medicinska Akademija Hrvatske)
- 1988- Member - World Health Organization/Commission of the European Communities Workshop on Iodine Prophylaxis Following Nuclear Accidents
- 1988- Consultant - New York State Department of Health, Bureau of Environmental Radiation Protection
- 1990- Chairman, NCI-Chernobyl Fallout Joint Study Group
- 1992- Chairman, Steering Committee Committee, FDA Thyrotoxicosis Followup Study
- 1992- Member, Independent Review Committee for Study of Safety and Effectiveness of Recombinant TSH (Thyrogen/Genzyme)
- 1992- Member, Organizing Group Nuclear Medicine Section of New York Academy of Medicine
- 1995-1996 Chairman, Public Health Committee, American Thyroid Association
- 1996 Member, Binational Oversight/Advisory Group Ukraine/Belarus/NCI Post Chernobyl Thyroid Studies (NRC/DOE/NCI).
- 1997 Member, Scientific Committee 1-8, "Risk to Thyroid from Ionizing Radiation", National Council on Radiation Protection (NCRP).
- 1997 Member, Scientific Policy Committee, International Consortium for Research on Health Effects of Radiation
- 1997 Program Committee, First International Seminar on Radiation and Thyroid Cancer. Cambridge, England 20 July 1988.
- 1997 Clinical Trials Program. Thyroid Cancer Management, American College of Surgeons.

David V. Becker, M.D. 8

PEER REVIEWED PUBLICATIONS

The Nature of the Serum Iodine Following Large Doses of I-131. Robbins, J.L., Rall, J.E., Becker, D.V. and Rawson, R.W. J Clin Endocrin 12:856-874, 1952.

The Effect of a Thyrotrophic Hormone Preparation on the Metabolism of Radioiodine in Euthyroid, Hyperthyroid and Acromegalic Individuals. Becker, D.V., Rall, J.E., Peacock, W. and Rawson, R.W. J Clin Invest 32:149-160, 1953.

The Use of I-133 in the Treatment of Graves' Disease. Berman, M., Becker, D.V., and Benua, R.S. J of Clin Endocrin & Metab 17:1222-1228, 1957.

The Metabolism of I-131 Labeled Thyroxine, Triiodothyronine and Diiodotyrosine by an Isolated Perfused Rabbit Liver. Becker, D.V. and Prudden, J.F. Endocrin 64:136-148, 1959.

The Effects of Hypophysectomy on Certain Parameters of Thyroid Function in Two Patients with Graves' Disease. Becker, D.V. J Clin Endocrin & Metab 19:840-844, 1959.

Distribution of Serum Radioiodinated Compounds in Euthyroid and Hyperthyroid Patients Following Hypophysectomy. Werner, S.C., Becker, D.V. and Row, V.V. J Clin Endocrin & Metab 19:953-957, 1959.

The Radioisotope Renogram: A Clinical Evaluation and Some Theoretical Aspects. Poker, N., Marshall, V.F., Becker, D.V. and Evans, J.A. Amer J Roent 84:866-975, 1960.

Appearance of Unilateral Infiltrative Exophthalmos of Graves' Disease After the Successful Treatment of the Same Process in the Contralateral Eye by Apparently Total Surgical Hypophysectomy. Furth, E.D., Becker, D.V., Ray, B.S. and Kane, J.W. J of Clin Endocrin & Metab 22:518-524, 1962.

David V. Becker, M.D. 9

Significance of Rate of Response of Basal Metabolic Rate and Serum Cholesterol in Hyperthyroid Patients Receiving Neomercazole and Other Antithyroid Agents. Furth, E.D., Becker, D.V. and Schwartz, M.S. J Clin Endocrin & Metab 23:1130-1140, 1963.

Limitations of the Ankle Jerk Test. Rives, K.L., Furth, E.D. and Becker, D.V. Ann Intern Med 62:1139-1146, 1965.

Effect of Dinitrophenol Administration on the Transport and Metabolism of the Thyroid Hormones in Rats. Nunez, E.A., Becker, D.V. and Gordon, A.S. Endocrin 77:192-197, 1965.

The Distribution, Metabolic Rate and Radiation Dosimetry of ^{131}I Labeled Macroaggregated Albumin. Furth, E.D., Okinaka, A.J., Focht, E.F. and Becker, D.V. J Nuc Med 6:506-518, 1965.

The Non-thyroidal Action of Propylthiouracil in Euthyroid, Hypothyroid and Hyperthyroid Man. Furth, E.D., Rives, K.L. and Becker, D.V. J Clin Endocrin & Metab 26:239-246, 1966.

Subcellular Localization of Radioiodine in the Thyroid Follicle of the Rat Following the Administration of Low and High Doses of ^{125}I . Nunez, E.A., Money W.L. and Becker, D.V. Acta Endocrin 51:369-376, 1966.

Fine Structure of Thiouracil-Induced Transplantable Thyroid Tumors in Noninbred Intact Rats. Nunez, E.A., Money, W.L. and Becker, D.V. Endocrin 80:629-640, 1967.

The Occurrence of Hyperthyroidism in Patients Receiving Thyroid Hormone. Dymling, J.F. and Becker, D.V. J Clin Endocrin & Metab 27:1487-1491, 1967.

Thyroxine Metabolism in the Dog. Furth, E.D., Becker, D.V., Nunez, E.A. and Reid, C.F. Endocrinol 82:976-982, 1968.

Iodine Kinetics in Man - A Model. Berman, M., Hoff, E., Barandes, M., Becker, D.V., Sonenberg, M., Benua, R. and Koutras, D.A. J Clin Endocrin 28:2-24, 1968.

Breed Differences and Similarities in Thyroid Function in Purebred Dogs. Nunez, E.A., Becker, D.V., Furth, E.D., Belshaw, B.E. and Scott, J.P. Am J Physiol 218:1337-1341, 1970.

Evaluation of Spleen Size During Routine Liver Imaging with $^{99\text{m}}\text{Tc}$ and the Scintillation Camera. Siegel, R.M., Becker, D.V. and Hurley, J.R. J Nucl Med 11:689-692, 1970.

David V. Becker, M.D. 10

Secretory Processes in Follicular Cells of the Rat Thyroid. I. Ultrastructural Changes During the Pre, Early and Mid-hibernation Periods with some Comments on the Origin of Autophagic Vacuoles. Nunez, E.A. and Becker, D.V. Am J Anat 129:369-397, 1970.

Complications of Radioiodine Treatment of Hyperthyroidism. Becker, D.V. and Hurley, J.R. Sem Nucl Med 1:442-460, 1971.

The Results of Radioiodine Treatment of Hyperthyroidism. A Preliminary Report of the Thyrotoxicosis Therapy Follow-up Study. Becker, D.V., McConahey, W.M., Dobyns, B.M., Tompkins, E., Sheline, G.E., and Workman, J.B. Proc. of the VI International Thyroid Conference, 1970. Further Advances in Thyroid Research, Editors: K. Fellingner and R. Hofer. Verlag der Wiener Medizinischen Akademie, 603-609, 1971.

The Impact of Technology Upon the Clinical Practice of Graves' Disease. Becker, D.V. and Hurley, J.R. Mayo Clin Proc 47:835-847, 1972.

Necrosis of Follicular Cells and Discharge of Thyroid Iodine Induced by Administering Iodide to Iodine-Deficient Dogs. Belshaw, B.E. and Becker, D.V. J Clin Endocrin & Metab 36:466-474, 1973.

Malignant and Benign Neoplasms of the Thyroid in Patients Treated for Hyperthyroidism: A Report of the Cooperative Thyrotoxicosis Therapy Follow Up Study. Dobyns, B.M., Sheline, G.E., Workman, J.B., Tompkins, E.A., McConahey, W.M. and Becker, D.V. J Clin Endocrin & Metab 38:976-998, 1974.

A Model of Iodine Kinetics in the Dog. Belshaw, B.E., Barandes, M., Becker, D.V. and Berman, M. Endocrin 95:1078-1093, 1974.

Influence of Iodine Intake in the Beagle. Belshaw, B.E., Cooper, T.B. and Becker, D.V. Endocrin 96:1280-1291, 1975.

Hyperthyroidism: Surgery or Conservative Management. Becker, D.V. and Blum, M. Surgical Issues, 1:3-44, 1977.

Breast Cancer and Thyroid Therapy. Gorman, C.A., Becker, D.V., Greenspan, F.S., Levy, R.P., Oppenheimer, J.H., Rivlin, R.S., Robbins, J. and Vanderlaan, W.P. JAMA 237:1459-1460, 1977.

The Role of Radioiodine Treatment in Childhood Hyperthyroidism. Becker, D.V. J Nucl Med 20:890-894, 1979.

David V. Becker, M.D. 11

Thyroid Suppression and Stimulation Testing: The Place of Scanning in the Evaluation of Nodular Thyroid Disease. Hurley, J.R. and Becker, D.V. Seminars Nucl Med 11:149-160, 1981.

Feline Hyperthyroidism: Pretreatment Clinical and Laboratory Evaluation of 131 Cases. Peterson, M.E., Kintzer, P.P., Cavanagh, P.G., Fox, P.R., Ferguson, D.C., Johnson, G.F. and Becker, D.V. JAVMA 183:103-110, 1983.

Physiological Basis for the Use of Potassium Iodide as Thyroid Blocking Agent. Logistic Issues in its Distribution. Becker, D.V. Bull of the New York Acad of Med 59:1003-1008, 1983.

Radionuclide Thyroid Imaging in 135 Cats with Hyperthyroidism. Peterson, M.E. and Becker, D.V. Vet Radiol 25:23-27, 1984.

The Use of Iodine as a Thyroidal Blocking Agent in the Event of a Reactor Accident. Becker, D.V., Braverman, L.E., Dunn, J.T., Gaitan, E., Gorman, C., Maxon, H., Schneider, A.B., Van Middlesworth, L., Wolff, J. JAMA 252:659-661, 1984.

Choice of Therapy for Graves' Hyperthyroidism. Becker, D.V. N Engl J Med 311:464-466, 1984 (invited editorial).

Usporedba ^{123}I i $^{99\text{m}}\text{Tc}$ Per tehneta ta U Scintigrafiji Nodozne Strume (Comparison of ^{123}I and $^{99\text{m}}\text{Tc}$ Per techneta te in Nodular Goiter Imaging). Spaventi, S., Kusic, Z., Paras, P., Saenger, E.L., Becker, D.V. Radiologia Jugoslavica, Anno 20, Supplementum III, pg. 47-49, 1986.

Reactor Accidents Public Health Strategies and Their Medical Implications. Becker, D.V. JAMA 258:649-654, 1987.
Also published in JAMA, Southeast Asia Edition 4:35-40, 1988 and the JAMA French Edition 13:33-40, 1988.

Autonomy of Growth and of Iodine Metabolism in Hyperthyroid Feline Goiters Transplanted onto Nude Mice. Peter, H.J., Gerber, H., Studer, H., Becker, D.V., and Peterson, M.E. Journal of Clinical Investigation 80:491-498, 1987.

Radioactive Iodine Treatment of a Functional Thyroid Carcinoma Producing Hyperthyroidism in a Dog. Peterson, M.E., Kintzer, P.P., Hurley, J.R., and Becker, D.V. Journal of Veterinary Internal Medicine 3:20-25, 1989.

Comparison of Technetium-99m and Iodine-123 Imaging of Thyroid Nodules: Correlation with Pathologic Findings. Kusic, Z., Becker, D.V., Saenger, E.L., Paras, P., Gartside, P., Wessler, T. and Spaventi, S. J Nucl Med 31:393-399, 1990.

David V. Becker, M.D. 12

Autonomous growth and function of cultured thyroid follicles from cats with spontaneous hyperthyroidism. Thyroid 1:331-338, 1991.

Optimal Use of Blood Tests for Assessment of Thyroid Function. Becker, DV et al. JAMA 269:2736, 1993.

Letter to the Editor. Optimal Use of Blood Tests for Assessment of Thyroid Function. Becker, D.V., Bigos, S.T., and Gaitan, E. Thyroid 3:353-354, 1993.

Treatment of Hyperthyroid Disease. Klein I, Becker DV, and Levey GS. Ann Intern Med 121:281-288, 1994.

Radioiodine Treatment of 524 Cats with Hyperthyroidism. Peterson ME and Becker DV. JAVMA 207:1422-1428, 1995.

Radioiodine and Thyroid Disease: The Beginning. Becker DV and Sawin CT. Semin Nucl Med 26:155-164, 1996.

Childhood Thyroid Cancer Following the Chernobyl Accident. A Status Report. Becker DV, Robbins J, Beebe GW, Bouville AC, and Wachholz, BW. Endo Met Clin N Am 25:197-211, 1996.

Procedure Guideline for Thyroid Scintigraphy; Thyroid Uptake Measurement and Extended Scintigraphy for Differentiated Thyroid Cancer 1.0. Becker DV, Charkes ND, Dworkin H, Hurley J, McDougall IR, Price D, Royal H and Sarkar S. J Nucl Med 37:1264-1271, 1996.

Chernobyl: 10 years later. Mettler FH, Becker DV, Wachholz BW, Bouville AC. J Nucl Med 37:24-27, 1996.

Effects on the thyroid in populations exposed to radiation as a result of the Chernobyl accident. Background paper 3, International Conference: Summing up consequences of the Chernobyl accident. Williams D, Becker D, Dimidchik E, Pinchera A et al. Vienna, IAEA, 1996.

Radioiodine and the Treatment of Hyperthyroidism: The Early History. Sawin CT and Becker DV. Thyroid 7:163-176.

Potassium Iodide for Thyroid Blockade in a Reactor Accident: Administrative Policies that Govern its Use. Becker DV and Zanzonico P. Thyroid 7:193-197.

David V. Becker, M.D. 13

BOOK CHAPTERS

Radiation Injury. Becker, D.V. The Treatment of Mass Civilian Casualties in a National Emergency, Prepared by the Trauma Research Group of Cornell University Medical College for the Division of Health Mobilization of the United States Public Health Service, Chapter XVIII, 95-99, 1963.

Extrathyroidal Tests of Thyroid Function. Becker, D.V. In Thyroid, 3rd Edition, Ed. by Werner and Ingbar, Hoeber-Harper and Row 1971.

Radioiodine Treatment of Hyperthyroidism. Becker, D.V. Handbuch der Medizinischen Radiologie: Clinical Aspects of Nuclear Medicine, Edited by H. Hundeshagen, Springer-Verlag, 15:163-174, 1978.

Radioiodine Treatment of Thyroid Cancer. Becker, D.V. Handbuch der Medizinischen Radiologie Vol. XV: Clinical Aspects of Nuclear Medicine, Edited by H. Hundeshagen, Springer-Verlag, 15:175-184, 1978.

Antithyroid Preparation for ^{131}I Therapy. Controversies in Clinical Thyroidology, Ed. J. Hamburger, D.V. Becker, Springer-Verlag, 195-199, 1981.

Management of Hyperthyroidism. Sarkar, S.D. and Becker, D.V. Current Therapy 501-505, Ed. H. Conn, 1982.

Current Status of Radioiodine ^{131}I Treatment of Hyperthyroidism. Becker, D.V. and Hurley, J.R. Nucl Med Ann 265-290, Ed. L.M. Freeman and H.S. Weissman, Raven Press, 1982.

Radioactive Iodine ^{131}I in the Treatment of Hyperthyroidism. Becker, D.V. Thyroid Disease, Pergamon Press, Inc. 145-158, 1982.

Induction of Thyroid Cancer by Ionizing Radiation. Maxon, H.R., Thomas S.R., Becker, D.V., Books, S.A. and Buncher, C.R. National Council on Radiation Protection and Measurements, NCRP Report No. 80, March, 1985.

Safety of I-131 Treatment of Hyperthyroidism. Brill, A.B., Becker, D.V. Chapter in: The Thyroid Gland: A Practical Clinical Treatise. Guest Editor: Lester van Middlesworth, Ph.D., M.D., 1986.

Metabolic Indices of Thyroid Function. D.V. Becker In: The Thyroid, 5th Edition, eds. Ingbar and Braverman, J.B. Lippincott, Philadelphia, 1986.

David V. Becker, M.D. 14

Radioiodine Treatment of Hyperthyroidism. Becker, D.V., Hurley, J.R. In: Diagnostic Nuclear Medicine, Volume 1, Second Edition, eds. Gottschalk, Hoffer, Potchen, and Berger. William & Wilkins, Baltimore, 1988.

Treatment of Thyroid Carcinoma with Radioiodine. Hurley, J.R. and Becker, D.V. In: Diagnostic Nuclear Medicine, Volume 1, Second Edition, eds. Gottschalk, Hoffer, Potchen, and Berger. Williams & Wilkins, Baltimore, 1988.

Practical dosimetry: Quantitative imaging in radionuclide therapy. Zanzonico, P.B., Edwards, C., Sgouros, G., Strauss, A., Bigler, R.E., Hurley, J.R., and Becker, D.V. In: Adelstein SJ, Kassis AI, and Burt RW (Eds), Dosimetry of Administered Radionuclides, American College of Nuclear Physicians, Washington, DC, pp 275-294, 1989.

Thyroid Storm. Benua, R.S. and Becker, D.V. In: Current Therapy in Endocrinology and Metabolism, 4th Edition, B.C. Decker, Inc. 1990.

Medical Radiation: Comparison of Iodine-131 Therapy and Alternative Treatments of Hyperthyroidism. Becker, D.V. In: Radiation and the Thyroid, ed. Nagataki, S. Excerpta Medica, 1990.

Treatment of hyperthyroidism with 131-I: Continuation of antithyroid drugs does not adversely affect therapy and in 'small pool' patients reduces the extrathyroidal radiation dose. Becker, D.V., Zanzonico P. B., Hurley J. R., Kusic Z., Sanderson L., Tsen O., and Straus A. In: Progress in Thyroid Research, Gordon, Gross & Hennemann (eds), Balkema, Rotterdam, 1991, pgs 223-226.

Different continuous cell lines from adenomatous feline goiters widely differ in morphologic, functional and growth parameters. Gerber H., Peter H., Bosiger J., Studer H., Drews R., Ferguson D. C., Peterson M. E., Becker, D. V. In: Progress in Thyroid Research, Gordon, Gross & Hennemann (eds), Balkema, Rotterdam, 1991, pgs 541-544.

Radiation Hazards in Children Born to Mothers Exposed to 131-Iodine. Zanzonico P. B., Becker, D. V. In: The Thyroid and Pregnancy, C. Beckers, D. Reinwein (eds), International MERCK-Symposium in Brussels, January 31 - February 2, 1991, pgs 189-202.

Practical dosimetry: Quantitative imaging in radionuclide therapy. Zanzonico, PB, Edwards C, Sgouros G, Strauss A, Bigler RE, Hurley JR and Becker DV. In: Adelstein SJ, Kassis AI, and Burt RW (Eds), Dosimetry of Administered Radionuclides, American College of Nuclear Physicians, Washington, DC, 1989.

David V. Becker, M.D. 15

Thyroid uptake and imaging. Sarkar SD and Becker DV. In: Principles and Practices of Endocrinology and Metabolism. Becker, KL (ed.) J.B. Lippincott Company, 1990, pgs 284-289.

Use of potassium iodide to minimize thyroid radiation from radioactive fallout. Zanzonico PB and Becker DV. In: Iodine Deficiency in Europe: A Continuing Concern, Brussels, 1992.

Becker DV and Zanzonico PB. Radioiodine Therapy in Children. In: Treatment of Thyroid Cancer in Childhood. Ed. Robbins J, Bethesda 1992. National Institute of Health.

Thyroid Storm. Benua RS, Becker DV, and Hurley JR. In: Current Therapy in Endocrinology and Metabolism, Fifth Edition, ed. C. Wayne Bardin, Mosby Yearbook, Inc., St. Louis, pgs. 75-77, 1994.

Radiation Dosimetry. Zanzonico PB, Brill AB, and Becker DV. In. Wagner H (Ed), Principles of Nuclear Medicine, 2nd ed., WB Saunders, Philadelphia 1995.

Becker DV and Hurley JR. Radioiodine Treatment of Hyperthyroidism. In: Diagnostic Nuclear Medicine, Volume 1, Third Edition, eds. Sandler M, Coleman RE, Gottschalk A, Hoffer P, Patton JA, and Wackers FJT. Williams and Wilkins, Baltimore, pp. 943-958, 3rd Edition, 1996.

Hurley JR and Becker DV. Treatment of Thyroid Carcinoma with Radioiodine. In: Diagnostic Nuclear Medicine, Volume 1, Third Edition, eds. Sandler M, Coleman RE, Gottschalk A, Hoffer P, Patton JA, and Wackers FJT. Williams and Wilkins, Baltimore, pp. 959-990, 3rd Edition, 1996.

Becker DV. The Background and Long-term Consequences of the Chernobyl Catastrophe. In: The Thyroid and Iodine, Merck European Thyroid Symposium, Warsaw, eds. Nauman, Glincoer, Braverman, and Hostalek. Schattauer, Stuttgart, 1996.

David V. Becker, M.D. 16

ABSTRACTS

Implications of Rapid Intrathyroidal Iodine Turnover for ^{131}I Therapy: The Small Pool Syndrome. Barandes, M., Hurley, J.R. and Becker, D.V. J Nucl Med 14:379, June 1973.

Operator Independent Edge Detection Algorithms in Nuclear Medicine. Cahill, P.T., Ho, S.L., Ornstein, E., and Becker, D.V. J Nucl Med 18:607, 1977.

Scintillation Camera Field Uniformity: Visual or Quantitative? Cahill, P.T., Knowles, R.J.R. and Becker, D.V. IEEE Trans Nucl Sci, Ns-27, 1980.

Intelligent Data Base System for Retrieval of Radiological Image Information. Cahill, P.T., Kneeland, B., Knowles, R.J.R., Apostolopoulos, S., Lunin, L.F., and Becker, D.V. Computers in Medical Care Systems, 1982.

Organizing for Information Interaction in a Radiology Department: Focus on Image Analysis, Storage and Retrieval. Lunin, L.F., Cahill, P.T., Auh, J., Lee, B.C.P. and Becker, D.V. Proceedings of the ASIS Annual Meeting 19:179-181, 1982.

Ablation of Post Surgical Thyroid Remnants in Patients with Differentiated Thyroid Cancer Can be Achieved with Less Whole Body Radiation. Becker, D.V., Hurley, J.R., Motazed, A., and Cahill, P.T. J Nucl Med 23:5, P43, 1982.

Spontaneous Hyperthyroidism in the Cat: An Animal Model for Toxic Nodular Goiter. Peterson, M.E., Becker, D.V. Presented at the 59th Annual Meeting of the American Thyroid Association, New Orleans, LA. October 5-8, 1983.

The Use of Quantitative SPECT and Physiological Modeling for Thyroid Cancer. Zanzonico, P.B., Bigler, R.E., Hurley, J.R., Becker, D.V., and Edwards, C. Presented at the Metabolic Imaging with NMR, SPECT, and PET, West Palm Beach, FL, March 3-5, 1986.

Fetal Radiation Dosimetry for Maternally Administered I-131-Iodide: Effect of Maternal Thyroid Function. Zanzonico, P.B., Becker, D.V., Bigler, R.E., and Katz, M. Presented at the Society of Nuclear Medicine 34th Annual Meeting, Toronto, Canada, June 2-5, 1987.

Thyroid Scintigraphy in Congenital Hypothyroidism: Compartmental Analysis and Phantom Imaging-Based Analysis of the Minimum Administered Activity Required. Zanzonico, P.B., Becker, D.V., Bigler, R.E., and Katz, M. Presented at

David V. Becker, M.D. 17

the Society of Nuclear Medicine 34th Annual Meeting,
Toronto, Canada, June 2-5, 1987.

Neonatal Thyroid Scintigraphy in Congenital Hypothyroidism:
Evaluation and Optimization of the Cost-Benefit Ratio.
Zanzonico, P.B., Becker, D.V., Hurley, J.R., and Katz, M.
Presented at the 1987 Annual Meeting of the American Thyroid
Association, Washington, DC, September 16-19, 1987.

Extra-thyroidal absorbed doses in radioiodine treatment of
hyperthyroidism: Compartmental modeling-based analysis of
468 patients. Zanzonico, P.B., Becker, D.V., Brill, A.B.,
Tsen, O., Strauss, A., and Hurley, J.R. Society of Nuclear
Medicine 36th Annual Meeting, St. Louis, MO, June 13-16,
1989.

Quantitation in radioiodine therapy of metastatic thyroid
cancer: Comparison of projected and actual tumor absorbed
doses. Society of Nuclear Medicine 37th Annual Meeting,
Washington, DC, June 19-22, 1990.

Enhancement of radioiodine therapy of hyperthyroidism in
"small pool" patients: Dosimetric methodology and results.
Zanzonico, P.B., Becker, D.V., Hurley, J.R., Kusic, Z.,
Sanderson, L., Go, S., Tsen, O., and Strauss, A. Society of
Nuclear Medicine 38th Annual Meeting. Cincinnati, OH, June
11-14, 1991.

Antithyroid Drugs Given During ^{131}I Treatment Maintain
Clinical Control of Hyperthyroidism and Reduce Whole Body
Radiation. Becker, D.V., Hurley, J.R., Zanzonico, P.B., and
Kusic, Z. Presented at the 63rd Meeting of the American
Thyroid Association, Inc., Montreal, Canada, September 27-
October 1, 1988.

I-131 Dosimetry: Calculation of Dose to the Breast in
Hyperthyroid Women. Brill, A.B., Busche, H., Zanzonico, P.,
Eckerman, K., and Becker, D.V. Presented at the
International Symposium on Nuclear Medicine, Beijing, China,
October 10-14, 1988.

Effects of Serum and Growth Factors on Proliferation of
Cultured Normal and Adenomatous Thyrocytes. Drews, R.,
Ferguson, D.C., Gerber, H., Peterson, M.E., McGraw, R.A.,
Helper, J., and Becker, D.V. Annales d'Endocrinologie
(Paris) Volume 50, pg. 143, Abstract No. 118, 1989.
Presented at the 18th Annual Meeting of the European Thyroid
Association, Copenhagen, Denmark, June 26-30, 1989.

Discrepancy Between Tc-99m and I-123 Thyroid Scintigraphy.
Kusic, K., Becker, D.V., Saenger, E.L., Paras, P., Labar,
Z., Prpic, H., Djakovic, N., and Spaventi, S. Presented at
the European Association of Nuclear Medicine Congress,
Strasbourg, France, August 28-September 1, 1989.

David V. Becker, M.D. 18

Effects of α -Retinoic Acid on Proliferation of Cat and Rat Thyroid Cell Lines in Vitro. Bosiger J., Gerber H., Peter H.J., Studer H., Drews R., Peterson M.E., Becker D.V. - Univ. Clinic of Int. Medicine, Inselspital, CH-3010 Berne, Switzerland; Dept. of Physiology, Univ. of Georgia College of Vet. Medicine, Athens, GA 30602, USA; Animal Medical Center and Div. of Nuclear Medicine, The New York Hospital-Cornell Medical Center, Cornell Univ. Med. College, New York, NY 10021, USA. Presented at the 19th Annual Meeting of the European Thyroid Association on August 25-30, 1991, Hannover, Germany.

§

David V. Becker, M.D. 19

OTHER PUBLICATIONS

The Metabolism of C14 Labeled Dextran and Polyvinylpyrrolidone in Humans. Becker, D.V. and Hellman, L. Reports of the National Research Council, Subcommittee Blood Substitutes, 1952.

Progress Report on the New York Center for Biomathematical Research. Proceedings of the Second IBM Medical Symposium 287-295, 1962, Computing Reviews 3:52, 1962.

Current Status of Radioiodine Treatment of Hyperthyroidism. Becker, D.V. Thyroid Today 2:1-5, 1979.

Genetic Hazards of 131I Therapy of Hyperthyroidism. Becker, D.V. Newline SNM 8:5, 1983.

Guidelines for Patients Receiving Radioiodine Treatment. Becker, D.V., Siegel, B.A., Bozik, D.A., Peabody, C.A. Published by The Society of Nuclear Medicine, Inc., 1983.

Radioiodine Treatment of Thyroid Disease (Editorial). Becker, D.V. Diagnostic Nuclear Medicine, Vol. 3, No. 2, p. 2, 1986.

Concluding Remarks presented at panel, Low Level Radioactive Waste: How Does Society Respond? as part of a Symposium on Science and Society: Low Level Radioactive Waste. Controversy and Resolution. Bulletin of The New York Academy of Medicine, Second Series, Vol. 65, No. 4, pp. 553-554, April-May, 1989.

David V. Becker, M.D. 20

EDITORIAL REVIEWER

The Journal of Nuclear Medicine

The Journal of Clinical Endocrinology and Metabolism

Health Physics

Metabolic Ophthalmology

David V. Becker, M.D. 21

David V. Becker, M.D.

RECENT PUBLICATIONS

Reactor Accidents Public Health Strategies and Their Medical Implications. Becker, DV, JAMA 258:649-654. Also published in JAMA, Southjeast Asia Edition 4:35-40, 1988 and the JAMA French Edition 13:33-40, 1988.

Autonomous of Growth and of Iodine Metabolism in Hyperthyroid Feline Goiters Transplanted onto Nude Mice. Peter, HJ, Gerber, H, Studer, H, Becker, DV, and Peterson, ME. J of Clin Invest 80:491-498, 1987.

Radioactive Iodine Treatment of a Functional Thyroid Carcinoma Producing Hyperthyroidism in a Dog. Peterson, ME, Kintzer, PP, Hurley, JR, and Becker, DV. J Vet Intern Med 3:20-25, 1988.

Comparison of Technetium-99m and Iodine-123 Imaging of Thyroid Nodules: Correlation with Pathologic Findings. Kusic Z, Becker, DV, Saenger, EL, Paras, P, Gartside, P, Wessler T, and Splaventi S. J Nucl Med 31:393-399, 1990.

Autonomous growth and function of cultured thyroid follicles from cats with spontaneous hyperthyroidism. Peter HJ, Gerber H, Studer H, Peter ME, Becker DV, Groscurth P. Thyroid 1:331-338, 1991.

Radioiodine Treatment of Hyperthyroidism. Becker DV, Hurley JR. In: Diagnostic Nuclear Medicine, Volume 1, Second Edition, eds. Gotschalk, Hoffer, Potchen and Berger. Williams and Wilkins, Baltimore, 1988.

Treatment of Thyroid Carcinoma with Radioiodine. Hurley JR, and Becker DV. In: Diagnostic Nuclear Medicine, Volume 1, Second Edition, eds. Gottschalk, Hoffer, Potchen and Berger. Williams and Wilkins, Baltimore, 1988.

Thyroid Storm. Benua RS and Becker DV. In: Current therapy in endocrinology and metabolism, 4th Edition, BC Decker, Inc. 1990.

Medical Radiation: Comparison of Iodine-131 therapy and alternative treatments of hyperthyroidism. Becker DV. In: Radiation and the thyroid, ed. Nagataki, S. Excerpta Medica 1990.

Treatment of hyperthyroidism with 131-I: Continuation of antithyroid drugs does not adversely affect therapy and in 'small pool' patients reduces the extrathyroidal radiation dose. Becker DV, Zanzonico PB, Hurley JR, Kusic Z, Sanderson L, Tsen O, and Straus A. In: Progress in Thyroid

David V. Becker, M.D. 22

Research, Gordon, Gross and Hennemann (eds). Balkema, Rotterdam, 1991, pg. 223-226.

Different continuous cell lines from adenomatous feline goiters widely differ in morphologic, functional and growth parameters. Gerber H, Peter H, Bosiger J, Studer H, Drews R, Ferguson DC, Peterson ME, Becker DV. In: Progress in Thyroid Research, Gordon, Gross and Henneman (eds), Balkema, Rotterdam, 1991, pgs 541-544.

Radiation Hazards in Children Born to Mothers Exposed to ¹³¹Iodine. Zanzonico PB, Becker DV. In: The Thyroid and Pregnancy. C. Beckers, D. Reinwein (eds), International MERCK-Symposium in Brussels. January 31-February 2, 1991, pgs. 189-202.

Practical Dosimetry: Quantitative imaging in radionuclide therapy. Zanzonico PB, Edwards C, Sgouros G, Strauss A, Bigler RE, Hurley JR and Becker DV. In: Adelstein SJ, Kassis AI, and Burt RW (Eds), Dosimetry of Administered Radionuclides. American College of Nuclear Physicians, Washington, DC, 1989.

Use of potassium iodide to minimize thyroid radiation from radioactive fallout. Zanzonico PB and Becker DV. In: Iodine Deficiency in Europe: A continuing concern, Brussels, 1992.

Becker DV and Zanzonico PB. Radioiodine Therapy in Children. In: Treatment of Thyroid Cancer in Childhood. Workshop Jointly Sponsored by National Cancer Institute, Dept of Energy and the Fogarty International Center, Bethesda, MD, National Institute of Health, 1992.

Radiation dosimetry. Zanzonico PB, Brill AB, and Becker DV. In: Wagner H (Ed). Principles of Nuclear Medicine, 2nd edition, WB Saunders, Philadelphia 1995.

Becker DV and Hurley JR. Radioiodine Treatment of Hyperthyroidism. In: Diagnostic Nuclear Medicine, Volume 1, Third Edition, eds. Sandler M, Coleman RE, Gottschalk A, Hoffer P, Patton JA, and Wackers FJT. Williams & Wilkins, Baltimore, pp. 943-958, 1996.

Hurley JR and Becker DV. Treatment of Thyroid Carcinoma with Radioiodine. In: Diagnostic Nuclear Medicine, Volume 1, Third Edition, eds. Sandler M, Coleman RA, Gottschalk A, Hoffer P, Patton JA, and Wackers FJT. Williams & Wilkins, Baltimore, pp. 959-990, 1996.

Childhood Thyroid Cancer Following the Chernobyl Accident. A Status Report. Becker DV, Robbins J, Seebe GW, Bouville AC, and Wachholz BW. Endo Met Clin N Amer 25:197-211, 1996.

David V. Becker, M.D. 24

Academic Appointments:

1975- Present, Professor of Medicine, Cornell University
Medical College, New York
1972-Present, Professor of Radiology, Cornell University
Medical College New York

Scientific and Medical Societies:

Honors and Awards:

Languages:

Spoken: *

Written:

Social Security#:

Marital Status:

Spouse's Name:

Dependents:

Military Services:

David V. Becker, M.D. 25

Other Activities:

- 1968- Steering Committee - U.S.P.H.S.
Thyrototoxicosis Follow-Up Study
- 1971-1979 AMA Advisory Committee on Education for the
Allied Health Professions and Services and
- 1973- Advisory Committee on Medical Uses of
Radioactive Materials - New York State
Department of Health
- 1975-1980 Member - Task Force on Short Lived
Radionuclides, Bureau of Radiological
Health, Food and Drug Administration,
U.S.P.H.S.
- 1976- Consultant - Bureau of Radiological
Health, Food and Drug Administration
- 1978- Member - National Council on Radiation
Protection & Measurement Scientific
Committee NO. 57
- 1978-1979 President - Greater New York Chapter of
the Society of Nuclear Medicine, New York
- 1978-1986 Trustee - National Society of Nuclear
Medicine
- 1978- National Cooperative Thyroid Cancer
Treatment Study Group
- 1980-1981 Chairman, Environmental Hazards Committee,
The American Thyroid Association
- 1981- Member - Working Group on Health Aspects of
Radioactive Materials, Subcommittee on
Environmental Health, The New York Academy
of Medicine, New York, New York
- 1981-1989 Member - Publications Committee, The Society
of Nuclear Medicine
- 1982-1983 President - The American Thyroid Association
- 1982-1986 Member - Medical Radiation Advisory Committee
of the Food and Drug Administration
- 1983- Member - Ad Hoc Working Group on
Thyroid/Iodine 131 Assessment, National
Cancer Institute, Bethesda, MD

David V. Becker, M.D. 26

- 1984- Member - Committee on Public Health, and its Executive Committee, New York Academy of Medicine, New York, New York
- 1984- Member - Thyrotoxicosis Follow-Up Study Group, National Cancer Institute, Bethesda, MD
- 1987- Consultant - Radiological Devices Panel/ Center for Devices and Radiological Health (CDRH), Food and Drug Administration
- 1987- Member - Scientific Advisory Committee on Radiation to the Department of Health of the City of New York
- 1987- Member - American Medical Association Radiation Advisory Committee
- 1987- Member - National Cancer Institute Thyroid/ Iodine-131 Assessments Committee
- 1988- Member - World Health Organization/Commission of the European Communities Workshop on Iodine Prophylaxis Following Nuclear Accidents
- 1990- Chairman, NCI-Chernobyl Thyroid Working Group

CURRICULUM VITAE

FRED A. METTLER, JR., M.D., M.P.H.

April 1997

OFFICE ADDRESS:

Chairman
Department of Radiology
University of New Mexico
School of Medicine
Albuquerque, New Mexico 87131

HOME ADDRESS:

3004 La Mancha Street NW
Albuquerque, New Mexico 87104

TELEPHONE:

Office: (505) 272-0011
Home (505) 243-0236
FAX: (505) 272-5821

PLACE AND DATE OF BIRTH:

New York, New York -- April 17, 1945

MARITAL STATUS:

Married to Gloria Ann Dedula
Children: Two sons, Erik and Larsen

Fred A. Mettler, Jr., M.D., M.P.H.
Curriculum Vitae

EDUCATION:

- 1966 A.B. Mathematics
Columbia University
New York, New York

- 1970 M.D. Jefferson Medical College
Philadelphia, Pennsylvania

- 1975 M.P.H. Industrial Health
Harvard School of Public Health
Boston, Massachusetts

HONORS:

- 1978-82 Picker Foundation Scholar

- 1978-79 Outstanding Teacher of the Year
UNM Radiology Department

- 1982 John Muir Award, Medical Film Festival
Standard Oil of California Radiology Award

- 1984 Fellowship, American College of Radiology

- 1994 Listed among "The Best Doctors in America"

TRAINING AND EXPERIENCE:

- 1969 Guest Investigator
National Cancer Institute
National Institutes of Health
Bethesda, Maryland

- 1970-71 Rotating Internship (Radiology)
University of Chicago Hospitals & Clinics
Chicago, Illinois

- 1972-74 Radiologist
United States Air Force
Forbes AFB Hospital
Topeka, Kansas
Wounded in the line of duty
Disabled Veteran

Fred A. Mettler, Jr., M.D., M.P.H.
Curriculum Vitae

TRAINING AND EXPERIENCE (continued):

- 1974-76 Medical Consultant
 Radiation Management Corporation
 Philadelphia, Pennsylvania
- 1974-76 NIH Clinical Fellow
 Massachusetts General Hospital
 Harvard School of Medicine
 Boston, Massachusetts
- 1975 Graduate, Nuclear Engineering Courses
 Massachusetts Institute of Technology
 Cambridge, Massachusetts
- 1976-77 Manager, Health Services Division
 Radiation Management Corporation
 Philadelphia, Pennsylvania
- 1976-77 Assistant Clinical Professor
 Department of Radiology & Nuclear Medicine
 University of Pennsylvania
- 1977-78 Acting Chief, Division of Nuclear Medicine
 University of New Mexico Hospital
 Albuquerque, New Mexico
- 1977-79 Chief, Diagnostic Imaging (CT & US)
 Cancer Research & Treatment Center
 Assistant Professor of Radiology
 University of New Mexico Medical Center
 Albuquerque, New Mexico
- 1980-83 Chief, Diagnostic Imaging
 Associate Professor of Radiology
 University of New Mexico Medical Center
 Albuquerque, New Mexico
- 1983 Vice Chairman
 Department of Radiology
 Full Professor with Tenure
 University of New Mexico
 Albuquerque, New Mexico
- Chief, Radiology Service
 Veterans Administration Medical Center
 Albuquerque, New Mexico

Fred A. Mettler, Jr., M.D., M.P.H.
Curriculum Vitae

TRAINING AND EXPERIENCE (continued):

- 1984 Professor with Tenure
 Department of Radiology
 University of New Mexico
 School of Medicine

 Director, Nuclear Medicine Technology Program
 University of New Mexico

 Director, Radiology Residency Program
 University of New Mexico

 Chief, Radiology Service
 Veterans Administration Medical Center
 Albuquerque, New Mexico
- 1985 Acting Chairman
 Department of Radiology
 University of New Mexico
 School of Medicine
- 1986-present Professor and Chairman
 Department of Radiology
 University of New Mexico
 School of Medicine
- 1996-1997 Interim Director of Managed Care Operations
 UNM Health Sciences Center

LICENSURE:

Currently licensed in New Mexico (License number: 77-71)

Diplomate of the National Board of Medical Examiners

Previously licensed in New York, New Jersey, Illinois,
Montana, California, Kansas, Pennsylvania, Massachusetts

CERTIFICATION:

American Board of Radiology, 1976
American Board of Nuclear Medicine, 1976

SECURITY CLEARANCE:

Q clearance, Los Alamos National Laboratories, 1981-86

Fred A. Mettler, Jr., M.D., M.P.H.
Curriculum Vitae

EDITORIAL:

Editorial Advisory Board - *Radiology*, 1984-91

Associate Editor - *Radiology*, 1985-1991

Series Editor, *Contemporary Issues in Nuclear Imaging*
Publisher: Churchill-Livingston, NY, 1988

Series Editor, *Imaging*
Publisher: Little Brown and Company, 1988-1990

Series Editor, *Essentials in Radiology*
Publisher: W.B. Saunders, 1994-

Reviewer

Health Physics

American Journal of Epidemiology

Journal of Nuclear Medicine

Journal of the American Medical Association

MEDICAL AND SCIENTIFIC SOCIETY MEMBERSHIPS:

American College of Emergency Physicians

American College of Nuclear Physicians

American College of Radiology

American Nuclear Society

Health Physics Society

New Mexico Radiological Society

Vice President, 1979

Secretary, 1980

President, 1981-83

New Mexico Ultrasound Society

President & Trustee, 1977-79

Radiological Society of North America

Program Committee, 1982-present

Program Chairman - Nuclear Medicine, 1987-present

RSNA Delegate to NCRP, 1987-present

Society of Nuclear Medicine

Vice President, Rocky Mountain Chapter, 1979-80

Fred A. Mettler, Jr., M.D., M.P.H.
Curriculum Vitae

MEDICAL AND SCIENTIFIC SOCIETY MEMBERSHIPS (continued):

Association of University Radiologists
Executive Committee, 1985-present
Rules Committee, 1986-present
Scientific Program Committee, 1986-present
Committee on Residency Program Directors, 1989-
Committee on Standards for Responsible Conduct of Research
Program Committee, 1994-present

AUR Representative to National Council on Radiation Protection

Society of Sigma Xi, Full Member 1981

New York Academy of Sciences 1992

Society of Epidemiologic Research 1992

UNIVERSITY COMMITTEES:

University of New Mexico Medical Center
Human Uses Radiation Subcommittee, Chairman, 1978-present
Radiation Control Committee, Vice Chairman, 1981-present
Credentials Committee, 1979-81
Continuing Medical Education, 1978-81
Library Committee, 1980-88
Tissue Committee, 1983-85
Executive Committee, 1985-present

Board of Directors,
New Mexico Medical Foundation, 1984-85, and 1986-present
Executive Committee, 1986-present

UNMH Board of Trustees Conference Committee, 1986

NATIONAL COMMITTEES:

American Board of Radiology
Oral Examiner: Nuclear Medicine, 1979-81
CT & Ultrasound, 1982
Special Competence in Nuclear Medicine, 1983-1995
Written Boards, Radiobiology Section Chief, 1984-1992

Fred A. Mettler, Jr., M.D., M.P.H.
Curriculum Vitae

American College of Radiology (ACR)

Commission on Nuclear Medicine, 1979-1992
 Committee on Government Affairs, 1981-1987
 Committee on Radiation Policy, 1980-85
 Committee on Biological Effects of Ultrasound, 1978-82
 Committee on Residency Training, 1982-present
 Vice Chairman, 1985-89
 Chairman, 1989-1996
 Committee on Radiologic Units, Standards & Protection, 1979-present
 Vice Chairman, 1989-1992
 Committee on Quality Assurance & Efficacy (CNM),
 Chairman, 1981-83
 ACR Delegate to the American College of Nuclear Physicians, 1981-84
 Committee on Malpractice, 1983-86
 Ad hoc Committee on Low Level Exposure Effects, 1985-1991
 Ad hoc Medical Advisory Panel on Non-Military Radiation
 Accidents, Chairman, 1986-1990
 Accreditation Council for Graduate Medical Education (ACGME)
 Member, Appeals Panel Diagnostic Radiology, 1986-96

National Council on Radiation Protection and Measurements (NCRP)

Board of Directors, 1991-1998
 Scientific Vice President (Medical Radiation)
 Committee on SI Units, 1981-present
 Committee 44, Medical Irradiation, 1982-86
 Chairman, 1986-present
 Committee 63, Protection of the Public in the Event of a Large Radiation
 Accident or Attack
 Budget Committee, 1988-1995

American College of Nuclear Physicians

Alternate Delegate to the ACR, 1979-83
 State Delegate to Council, 1986

National Academy of Sciences, National Research Council

Committee on Assessment of CDC Radiation Studies, 1991-93

National Cancer Institute

Review Committee for Projects on Radiation-induced
 Thyroid Cancer in Belarus and the Ukraine, 1993-95
 Multi-national Review Committee on Thyroid Projects, 1996

National Research Council

Institute of Medicine

Co-chair Committee on Feasibility of, and Need for, Epidemiologic Studies of
 Adverse Reproductive Outcomes in Families of Military Personnel Present
 at Atmospheric Test of Nuclear Weapons, 1995
 Chairman, Committee to Review NATO Battlefield Criteria, 1996-
 Chairman, Subcommittee on Ultrasound, Thyroid Screening, 1996-

Fred A. Mettler, Jr., M.D., M.P.H.
Curriculum Vitae

INTERNATIONAL COMMITTEES:

United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR)
Member, U.S. Delegation, 1977-82
Consultant and member of the U.N. Secretariat, 1983-87
United States Representative, Head of U.S. Delegation, 1986-present
International Commission on Radiation Protection (ICRP)
Member, Main Commission (one of twelve), 1989-
Chair, Working Group on Optimization of Dose in Diagnostic Radiology, 1991
Chair, Committee 3, Medical Radiation Protection, 1996-2002
International Atomic Energy Agency, Medical Team Leader,
Member, International Expert Advisory Group.
IAEA-Chernobyl Evaluation Project, 1990
World Health Organization, Scientific Advisory Committee on Long-Term Study of
Chernobyl, 1990-1991

CONSULTANT:

United States Army, Nuclear Medicine Consultant, 1982-85
Peace Corps - Washington, D.C., Radiation Effects Consultant, 1994

VISITING PROFESSOR:

Mallinckrodt Institute of Radiology, Washington University,
St. Louis, Missouri, March, 1984
University of Texas, San Antonio, Texas
October, 1984
Yale University, New Haven, New Haven, Connecticut
November, 1984
University of Colorado at Denver, Denver, Colorado, 1985
Children's Hospital, San Francisco, California, 1986
Mayo Clinic, Rochester, Minnesota, 1986
Wiggins Lectureship 1992
McKenzie Lectureship 1992
Failla Lectureship 1993

FACULTY:

Medical Management of Radiation Accidents, 1986-1992, University of New Mexico
REAC/TS, Department of Energy, Oak Ridge Associated Universities, 1983-1991

Fred A. Mettler, Jr., M.D., M.P.H.
Curriculum Vitae

PUBLICATIONS:

1. Mettler FA. Medical Student Activities. *NEJM* 279 (2), Ltr. 106, July, 1968.
2. Mettler FA, Hempelmann LH, Ames W, et al. Breast Neoplasms in Women Treated With X-rays for Acute Post-partum Mastitis. *J. Natl. Cancer Inst.* 43:803-811, 1969.
3. Mettler FA, Ghahremani GG. Fuzzy Fluid Level Sign: A Reappraisal of Its Cause and a Diagnostic Value. *Radiology* 105:559-511, 1972.
4. Griem ML, Moran EM, Ferguson DJ, Mettler FA, et al. Staging Procedures in Mycosis Fungoides. *Brit. J. Cancer: Suppl. II*, 362-367, 1975.
5. Mettler FA, Hainen R, Guiberteau MJ. Gallium Scanning Still Experimental? *NEJM* 293, Ltr (12), 610-611, Sept. 1975.
6. Mettler FA, Drolette M. In Vitro Rubidium Uptake by Erythrocytes Following Low-level X-ray Exposure. *Health Phys.* 30:401-404, 1976.
7. Mettler FA. Medical Concerns (CONF-760761-P1) in Proceedings of the National Energy Forum, (Jackson JL, Ed.), Univ. of Akron, Akron Ohio, July 1976.
8. Kalisher L, Mettler FA, Seligson D. Normal Axial Relationship of the Wrist. *Revista Interamericana Radiologia* 1:25-26, October 1976.
9. Berry RJ, Brennan JT, Mettler FA, Werner JL. Survival of Murine Leukemia Cells Exposed to ²⁵²Cf Neutrons under Conditions Simulating Implantation of These Radiation Sources into Tissue in Radiotherapy. (Abstract). *Radiation Research* 43: 215-216, July 1970.
10. Baram M, Petraske E, Mettler FA. Legal and Institutional Aspects of Using Cost-Benefit Analysis to Control Ionizing Radiation. *BEIR Comm. Report 2*, 73-122, National Academy of Sciences, 1977.
11. Linnemann RE, Mettler FA. Emergency Medical Assistance Programs for Nuclear Power Reactors. *IAEA-SM-215/22*, Inter Atomic Energy Agency, Vienna, 1977.
12. Mettler FA, Rocco FG, Junkins R. The Roles of EMT's in Radiation Accidents. *Emer Med Svcs* 6 (3) 22-25, 1977.
13. Mettler FA, Shea WH, Guiberteau MJ, et al. Improvement in Visualization of Hepatic Lesions with Upright Views. *J Nuc Med* 18:1128-1130, 1977.

Fred A. Mettler, Jr., M.D., M.P.H.
Curriculum Vitae

PUBLICATIONS (continued):

14. Moore H, McKinney R, Mettler FA. Radiographic and Radionuclide Findings in Rhizopus Osteomyelitis. *Radiology* 127:665-666, June 1978.
15. Mettler FA. The Hospital Administrator and Radiation Accidents. *Emer Med Serv* 7(3) 78-80, 1978.
16. Mettler FA. Initial Medical Management of Radiation Accidents. *Ann Emer Med* 1978.
17. Mettler FA, Kelsey CA, Baram M. Medical and Legal Implications of a Large Release of Radioiodine. *Nuclear Safety* 19:741-747, 1978.
18. Shreiner DP, Mettler FA, Grossman ZD, Wistow BW. Visualization of Hepatic Lesions with Upright Views, and Replies. *J Nuc Med* 19:563-564, May 1978.
19. Mettler FA. Emergency Management of Radiation Accidents. *J Amer Col Emer Phys* 7:302-305, August 1978.
20. Kligerman NN, Tsujii H, Bagshaw M, Mettler FA, et al. Current Observations of Pion Radiation Therapy at LAMPF: Treatment of Radioresistant Cancer. Elsevier/North Holland Biomedical Press, 1979.
21. Mettler FA, Bell GV, Rocco D. Emergency Medical Services Following a Nuclear Reactor Accident. *Emer Med Serv* 8(4) 52-56, July 1979.
22. Mettler FA, Schultz KH, Kelsey CA, et al. Gray Scale Ultrasonography in Evaluation of Neoplastic Invasion of the Base of the Tongue. *Radiology* 133:6781-783, Dec 1979.
23. Brogden BG, Moseley RD, Mettler FA. Effective Diagnostic Imaging: Network for CME, Programmed Text and Workbook. New York, NY, 1978.
24. Mettler FA. Optimization of Mobile Multiphasic Health Testing. *J Occ Med* 22(3):180-182, March 1980.
25. Bartow SA, Weston JT, Mettler FA, Key CR, Black WC, Anderson HC. Benign and Noninvasive Breast Lesions in Populations at Different Risk for Breast Cancer. (Abstract) *Lab Invest* 42:100, January 1980.
26. Parker TW, Kelsey CA, Moseley RD, Mettler FA, Garcia JF. Directed Versus Free Search for Nodules in Chest Radiographs. (Abstract). *Inv. Radiol* 17:152-155, 1982.
27. Tsujii H, Bagshaw M, Smith AR, Mettler FA, et al. Localization of Structures for Pion Radiotherapy by Computerized Tomography and Orthodiagraphic Projection. *Int J Rad Oncol Biol Phys* 6:319-325, 1980.

Fred A. Mettler, Jr., M.D., M.P.H.
Curriculum Vitae

PUBLICATIONS (continued):

28. Requard K, Mettler FA. Use of Ultrasound in the Evaluation of Trophoblastic Disease and its Response to Therap. *Radiology* 135:419-422, May 1980.
29. Crawford ED, Rogers HC, Mettler FA, et al. Ultrasonic Detection of Renal Tubular Carcinoma Extending into the Inferior Vena Cava. *J Urol* 124:538-539, Oct. 1980.
30. Moore Ph, Mettler FA. Skin Decontamination of Commonly Used Medical Radionuclides. *J Nuc Med* 21:475-476, 1980.
31. Mettler FA. Low-level Radioactive Waste: Generators Experience. Nuclear Regulatory Commission NUREG/CP 0013, July 1980.
32. Mettler FA, Christie JC. Scintigraphic Pattern of Acute Renal Vein Thrombosis. *Clin Nuc Med* 5(10):468-470, Oct 1980.
33. Mettler FA, Christie JC. Another Cause of Hepatic Hot Spot: Isolated Innominate Vein Obstruction. *Clin Nuc Med* 5(110):514-515, Oct 1980.
34. Crawford ED, Mettler FA, Peters PC, et al. Clinicopathologic Conference: Renal Mass in a Man with Eosinophilic Granuloma. *Urol* 15:520-525, May 1980.
35. Ball WS, Wicks JD, Mettler FA. Prone-Supine Change in Organ Position: CT Demonstration. *Am J Roentgenol* 135:815-820, Oct 1980.
36. Wicks JD, Mettler FA, Schultz KS. Bacterial Contamination of an Automated Water Path B-Scanner. *Radiology* 136:792-793, Sept 1980.
37. Mettler FA, Wicks JD, Thornbury JR, et al. Co-existent Renal Eosinophilic Granuloma and Renal Adenocarcinoma. *Urol Radiol* 1:247-249, 1980.
38. Caswell R, Epp E, Mettler FA, et al. SI Units in Radiation Protection and Measurements National Council on Radiation Protection and Measurements Report No. 82, Washington, DC. 1985.
39. Mettler FA, Wicks JD, Seigel RS. New Diagnostic Images: How, When, Why? Programmed Text Workbook, NCME, New York, 1981.
40. Mettler FA. Low-level Radiation Hazards in the Clinical Laboratory. *Lab World* 32:18-24. April 1981.
41. Alsofrom D, Mettler FA, Mann J. Radiographic Manifestation of the Plague in New Mexico 1975-1980, A Review of 42 Proven Cases. *Radiol* 139:561-565, Jun 1981.

Fred A. Mettler, Jr., M.D., M.P.H.
Curriculum Vitae

PUBLICATIONS (continued):

42. Mettler FA. The American College of Radiology. *In*: Control of Exposure of the Public to Ionizing Radiation in the Event of Accident or Attack. Procedures of NCRP Symposium Bethesda, MD, pp 237-238, May 1982.
43. Mettler FA, Christie JC. Focal Lung Uptake of Technetium 99m Sulfur Colloid. *Clin Nuc Med* 6:322-323, Jul 1981.
44. Requard CK, Mettler FA, Wicks JD. Preoperative Sonography of Malignant Ovarian Neoplasms. *Am J Roentgenol* 137:79-82, Jul 1981.
45. Kelsey CA, Moseley RD, Mettler FA, et al. X-ray Phantom Development for Observer Performance Studies. *Applic Optical Instru Med, SPIE* 273:77-79, 1981.
46. Requard CK, Mettler FA, Wicks JD. Ultrasonography in the Staging of Endometrial Adenocarcinoma. *Radiol* 140:781-785, Sept 1981.
47. Mettler FA, Wicks JD, Requard CK et al. Diagnostic Imaging of Choledochal Cysts. *Clin Nuc Med* 6:513-518, Nov 1981.
48. Wicks JD, Mettler FA, Howe KS. Pediatric Applications of an Automated Water Path B-Scanner. *Med US* 5:64-69, Aug 1981.
49. Wicks JD, Levine M, Mettler FA. Intrauterine Sonography of Thoracic Ectopia Cordis. *Am J Roentgenol* 137:619-621, Sept 1981.
50. Kelsey CA, Moseley RD, Mettler FA, et al. Cost Effectiveness of Stereoscopic Radiographs in the Detection of Lung Nodules. *Radiol* 142:611-613, Mar 1982.
51. Hylarides MD, Mettler FA, Wilbur DS. Studies Toward B-Ring Radiobrominations of Estrogens (Abstract). *J Nuc Med* 23:104-105, May 1982.
52. Kelsey CA, Moseley RD, Mettler FA, Parker TW. X-ray Phantom Development for Observer Performance Studies (Abstract). *Am J Roentgenol* 136:1274, Jun 1981.
53. Kelsey CA, Hall TC, Mettler FA, et al. Observer Performance as a Function of Viewing Distance. *Invest Radiol* 16:435-437, Sep 1981.
54. Rosen I, Hall TC, Mettler FA, et al. A Computerized Database System for Medical Diagnostic Studies (DIASTU). *Computer Prog Biomed* 12:249-261, 1980.
55. Wicks JD, Mettler FA. The Use of Ultrasound in Renal Hypertension. *Urol Radiol* 5:37-41, 1983.

Fred A. Mettler, Jr., M.D., M.P.H.
Curriculum Vitae

PUBLICATIONS (continued):

70. Drum DE, Jankowski C, Mettler FA. Radiation Accidents: Are You Prepared? Programmed Text and Workbook, NCME New York. Jun 1982.
71. Kelsey CA, Mettler FA, Christie JH, et al. Comparison of Modulation Transfer Functions (MTF) and Contrast Detail Image Evaluation Tests SPIE. Am J Roentgenol 139:426, Aug 1982.
72. Hyarides MD, Mettler FA, Wilbur DS. B-Ring Aromatization of Estrogen Derivatives. Steroids 41:657-662, 1983.
73. Moseley RD, Sinclair WK, Anderson RE, Baker R, Mettler FA, et al. Ionizing Radiation Sources and Biological Effects of Radiation, Report of the United Nations Scientific Committee on Atomic Radiation. 1982 Report to the General Assembly with Annexes. United Nations, Vienna 1982.
74. Kelsey CA, Mettler FA, Christie JH, et al. Comparison of Modulation Transfer Function (MTF) and Contrast Detail Image Evaluation Tests, Application of Optical Instrumentation in Medicine. SPIE 374:90-93, 1982.
75. Mettler FA. Medical X-ray Exposure of the Human Embryo and Fetus (ltr). Health Physics 44, 1983.
76. Williams A, Christie JH, Mettler FA, et al. Ascites Causing a False Positive Radionuclide Liver Image. Clin Nuc Med 8:76-77, Feb 1983.
77. Mettler FA. Role of Mobile Health Testing Programs. Occupational Health and Safety, 44-48, Oct 1982.
78. Kelsey CA, Moseley RD, Mettler FA, et al. Learning Effects in ROC and Contrast Detail Observer Performance Testing with Medical Images. Proc of the SPIE, 375, 160-163 Berlin. Oct 1982. IEEE Catalog #82, CH1804-4.
79. Wicks JD, Mettler FA, Seigel RS. Diagnostic Approach to Some Common Abdominal Disorders; Use of New Imaging Techniques, Part I, Diagnosis 47-66, May 1983.
80. Wicks JD, Mettler FA, Seigel RS. Diagnostic Approach to Some Common Abdominal Disorders, Part II, Diagnosis, 307-345, Jun 1983.
81. Williams A, Wicks JD, Mettler FA. Cystic and Solid Ovarian Neoplasms. Seminars in US 4:166-183, Fall 1983.
82. Mettler FA. Evaluation of Nuclear Medicine Equipment. Radiographics, Fall 1982.
83. Williams A, Mettler FA, Christie JH. Intrathoracic Kidney on Renal Radionuclide Renography: A Case Report. Clin Nuc Med 8:408-409, 1983.

Fred A. Mettler, Jr., M.D., M.P.H.
Curriculum Vitae

PUBLICATIONS (continued):

56. Mettler FA, Christie JH, Crow NE, et al. Utility of Radionuclide Liver/Spleen Scanning and Serum Enzyme Levels in Detecting Hepatic Metastases from Ovarian Cancer. *Cancer* 50:909-911, Sep 1982.
57. Wicks JD, Ball WS, Mettler FA, Howe KS. The Ultrasonic Spectrum of the "Cold" Thyroid Nodule. *Med US* 5, Nov 1981.
58. Bartow SA, Mettler FA, Black WC, et al. Correlations Between Radiographic Patterns and Morphology of the Female Breast. *Prog Surg Path* 4:263-275, 1981.
59. Mettler FA, Christie JH, Garcia JF, et al. Radionuclide Liver and Bone Scanning in the Evaluation of Patients with Endometrial Carcinoma. *Radiol* 141:777-780. Dec 1980.
60. Parker TP, Kelsey CA, Moseley RD, Mettler FA, et al. Directed Versus Free Search for Nodules in Chest Radiographs. *Inv Radiol* 152:155, Apr 1982.
61. Mettler FA, Christie JH, Crow NE, et al. Radionuclide Bone Scan in Radiographic Bone Survey and Alkaline Phosphatase - Studies of Limited Value in Asymptomatic Patients with Ovarian Carcinoma. *Cancer* 50:1483-1485, 1982.
62. Bartow S, Black WC, Waeckerlin RW, Mettler FA. Fibrocystic Disease: A Continuing Enigma. *Path Ann*, Vol. 17, Part 2:93-111, 1982.
63. Mettler FA, Ricks R. Medical Management of Radiation Accidents. *Contemp Diag Radiol* 5:8, Jun 1982.
64. Kelsey CA, Briscoe DE, Moseley Rd, Mettler FA, et al. Comparison of Nodule Detection with 70 and 120 kVp Chest Radiographs. *Radiol* 143:609-611, 1982.
65. Seigel RS, Williams A, Mettler FA, et al. Intraspinal Extradural Ependymoma. *J Comp Assist Tomog* 6(1):189-192, 1982.
66. Williams A, Mettler FA, Wicks JD. Utility of Diagnostic Imaging in the Staging of Gestational Trophoblastic Disease. *Diag Gyn Oncol* 4:2 159-163, 1982.
67. Henderson J, Metler FA, Wicks JD, et al. Urologic Imaging and Correlation with Serum Laboratory Determinations in Staging Gynecologic Malignancies. *Cancer* 52:563-566, Aug 1983.
68. Kelsey CA, Moseley RD, Mettler FA, et al. Anti-crossover Emulsions Evaluated by Observer Performance Tests. *Radiol* 146:209-211, Jan 1983.
69. Gordon R, Mettler FA, Wicks JD. Chest X-rays and Full Lung Tomograms in Gynecologic Malignancy. *Cancer* 52:559-562, 1983.

Fred A. Mettler, Jr., M.D., M.P.H.
Curriculum Vitae

PUBLICATIONS (continued):

84. Williams A, Christie JH, Mettler FA. Sulfur Colloid Distribution in Normal Hips. Clin Nuc Med 8:490-492, 1983.
85. Kelsey CA, Moseley RD, Garcia JF, Mettler FA, et al. ROC and Contrast Detail Image Evaluation Tests Compared. Radiol 154:629-631, 1985
86. Parker TP, Mettler FA, Christie JH. Thyroid Studies: A Survey of Radionuclide Practice in the United States in 1981. Radiol 150:547-550, 1984.
87. Spencer RR, Mettler FA, Williams A, et al. Technetium 99m PYP Scanning Following Low Voltage Electrical Injury. Clin Nuc Med 8:591-593, 1983.
88. Crawford ED, Mettler FA, Duncan PC. Retrocrural Lymphadenopathy in Testicular Cancer. J Urol 131:343-345, 1984.
89. Wicks JD, Mettler FA, Hilgers R, et al. Correlation of Ultrasound and Pathologic Findings in Patients with Epithelial Carcinoma of the Ovary. J Clin US 12:397-402, Sep 1984.
90. Kelsey CA, Lane RG, Mettler FA, Agarwal SK, Berk HW. Comments on 'Proposed Criteria for Issuing Personnel Dosimeters' and Reply. Hlth Phys 47:649-650, Oct 1984.
91. Leon AA, Mettler FA, Hylarides MD. Synthesis of 15-Vinyl Bromide Estradiol Derivatives. Abstracts of Paper of the Am Chem Soc 190:275, Sep 1985.
92. Rosenberg R, Mettler FA, Moseley RD, et al. Thyroid Radiation Absorbed Dose from Diagnostic Procedures to the U.S. Population. Radiol 156:183-185, 1985.
93. Williams AG, Mettler FA, Christie JH. Fat Embolism Syndrome: Case Report and Review of the Literature. Clin Nuc Med 11, 7:495-497, 1986.
94. Williams AG, Becker LE, Mettler FA. The Insensitivity of Technetium 99m Pertechnetate Imaging for Kaposi's Sarcoma. Cancer 55:1886-1891, 1985.
95. Mettler FA. Nuclear Medicine Equipment, 1983. Radiographics, Spring 1984.
96. Mettler FA, Christie JH, Williams AG, et al. Trends and Utilization in Nuclear Medicine in the U.S.: 1972-1982. J of Nuc Med 26(2):201-205, 1985.
97. Mettler FA, Williams AG, Christie JH, et al. Population Characteristics and Absorbed Dose to the Population from Nuclear Medicine, United States: 1982. Health Physics 50:619-628, 1986.
98. Evens R, Mettler FA. National CT Use and Radiation Exposure, United States: 1983. Am J Roentgenol 144:1077-1081, 1985.

Fred A. Mettler, Jr., M.D., M.P.H.
Curriculum Vitae

PUBLICATIONS (continued):

99. Hylarides MD, Leon AA, Mettler FA, et al. Synthesis of 1-Bromoestradiol. *Journal of Organic Chemistry*, 49:2744-2745, 1984.
100. Hylarides MD, Leon AA, Mettler FA, et al. Synthesis of 1-Chloroestradiol. *Steroids*, 43 (2):219-224, 1984.
101. Brown M, Gottschalk A, Mettler FA, et al. Correlative Imaging Panel. *Radiographics* 5 (3), 1985.
102. Hylarides MD, Buksa PL, Mettler FA, et al. Radiobromination of the 1 Positron of Estradiol Using No/carrier Added Bromine 77. *Journal Labeled Compounds & Radiopharmaceuticals* 22:5,437-441, 1985.
103. Hylarides MD, Leon AA, Mettler FA, et al. Radiolabeling of the B and C Ring of Estradiol Using No/carrier Added Bromine 77. *Journal Labeled Compounds & Radiopharmaceuticals* 22:5,443-450, 1985.
104. Williams AG, Mettler FA. Vertebral Hemangioma Radionuclide, Radiographic and CT Correlation. *Clin Nuc Med* 598, Aug 1985.
105. Mettler FA, Davis M, Kelsey CA, et al. Analytical Modeling of Worldwide Medical Radiation Use. *Health Physics* 52:133-141, 1987.
106. Wicks JD, Mettler FA. Sonography of Adrenal Lesions Causing Hypertension. *Urologic Radiol* 5: 99-102, 1983.
107. Mettler FA, Davis M, Moseley RD, Kelsey CA. The Effect of Utilising Age and Sex Dependent Factors for Calculating Detriment from Medical Irradiation. *Radiation Protection Dosimetry* 15:269-271, 1986.
108. Mettler FA, Williams AG, Spar JA, Kelsey CA. Estimation of the Genetically Significant Dose from Nuclear Medicine Examinations in the United States: 1980. *Health Physics*. 51:377-379. 1986.
109. Pollei S, Mettler FA, Bartow S, et al. Occult Breast Cancer: Prevalance and Radiographic Detectability. *Radiol* 163:459-462, 1987.
110. Pollei S, Mettler FA, Walters M, et al. Follow-up Chest X-rays in Vietnam Veterans: Are They Useful? *Radiol* 161:101-102, Oct 1986.
111. Eckel C, Davis M, Mettler FA, et al. Discrete Peritoneal and Pericardial Implants of Non Hodgkins Lymphoma - CT Findings and Review of the Literature. *Radiation Medicine* 5:2, 31-33, 1987.

Fred A. Mettler, Jr., M.D., M.P.H.
Curriculum Vitae

PUBLICATIONS (continued):

112. Mettler FA. Diagnostic Radiology Usage and Trends in the United States 1964-1980. *Radiol* 162:263, 1987.
113. Olsen NJ, Gogel HK, Williams WL, Mettler FA. Processing of Aspiration Cytology Samples: An Alternative Method. *Acta Cyto* 30:409-412, 1986.
114. Kelsey CA, Lane RG, Moseley RD, Mettler FA, et al. Chest Radiographs Obtained with Shaped Filters: Evaluation by Observer Performance Tests. *Radiol* 159:653-655, 1986.
115. Leon AA, Mettler FA, Hylarides MD. Preparation of the B-Ring Halogenated Estradiol Derivatives. *Steroids* 48 (5-6):395, 1986.
116. Hylarides MD, Duesler E, Mettler FA, et al. Structural Comparison of 1-Bromo and 1-Fluoroestradiol With D-estradiol. *Acta Crystallo* 44:709-712, 1988.
117. Sheward SE, Williams AG, Mettler FA, et al. CT Appearance of a Surgically Retained Towel (Gossypiboma). *JCAT* (10)2:343-345, 1986.
118. Kelsey CA, Mettler FA, Sorenson JA, et al. Health Care Workers Perceptions of Risk. *Health Physics* 53:541-544, 1987.
119. Mettler FA, Monsein L, Davis M, et al. Three Phase Radionuclide Bone Scanning in Evaluation of Local Radiation Injury. *Clin Nuc Med* 12:805-808, 1987.
120. Pollei SR, Mettler FA. Follow-up Chest Radiographs in Vietnam Veterans - Are They Useful? - Reply. *Radiol* 163:583, 1987.
121. Tryhus M, Mettler FA, Kelsey CA. The Radiologist and Angiographic Procedures, Absorbed Radiation Dose. *Invest Radiol* 22:747-750, 1987.
122. Mettler FA. The Human Immune Response and Nuclear War. In "Would the Insects Inherit the Earth and Other Subjects About Nuclear War", Green JC, Strom DJ, Editors. Pergamon Press, New York, 1988.
123. Hart B, Mettler FA, Harley N. Radon: Is It A Problem? *Radiol* 172:593-599, 1989
124. Hart B, Mettler FA, Bartow S, et al. Age and Race Related Changes in Mammographic Parenchymal Patterns with Age and Ethnicity. *Cancer* 63,2537, 1989.
125. Mettler FA, Alderson P, Brown M, et al. RSNA Nuclear Medicine Meeting Notes. *Radiol* 170:604-606, 1989.

Fred A. Mettler, Jr., M.D., M.P.H.
Curriculum Vitae

PUBLICATIONS (continued):

126. Mettler FA. Radiobiology for the Radiologist by Eric Hall (book review). Radiol, 1989.
127. Mettler FA. Medical Radiation Exposure. In: Proceedings of National Council on Radiation Protection and Measurements, 1989.
128. Orrison WW, Davis LE, Sullivan GW, Mettler FA, et al. Anatomic Localization of Cortical Function by Magnetoencephalography, Magnetic Resonance Imaging and Computed Tomography. Am J Neuroradiology 11:715-716, 1990.
129. Kelsey CA, King JN, Orrison WW, Mettler FA. Scattered Radiation Levels from a Portable Fluoroscopic Angiographic Unit. Health Physics 57:817-818, 1989.
130. Mettler FA. Historical Aspects of Radiation Protection in Medical Exposure. Proceedings of the National Council on Radiation Protection and Measurements, Washington, DC, 1989.
131. Mettler FA, Kelsey CA. Flexible Protective Gloves: The Emperor's New Clothes? Radiology 175:275-276, 1990.
132. Mettler FA, Tumeh S, Spies W et al. RSNA Nuclear Medicine Meeting Notes. Radiology 174:607-608, 1990.
133. Mettler FA, Haygood TM, Meholic A. Radiology Around the World. Radiology 1990.
134. Bartow SA, Pathak DR, Mettler FA. Radiographic Microcalcification and Parenchymal Pattern as Indicators of Histologic "High Risk" Benign Breast Disease. Cancer 66:1721-1725, 1990.
135. Arrington E, Hartshorne M, Eisenberg B, Mettler FA et al. The Two View Radionuclide Ventriculogram: Advantage of the LPO View. Clin Nuc Med 17:371-374, 1992.
136. Mettler FA, Williamson MR, Royal H et al. Thyroid Nodules in the Population Living Around Chernobyl. JAMA. 268(5):616-619, 1992.
137. Samet J, Mettler FA. Radiation Epidemiology: Research Needs: Proceedings of 1991 Santa Fe Conference, 1992.
138. Orrison WW, Stimac GK, Stevens EA, LaMasters D, Espinosa M, Mettler F. Comparison of CT, Low Field Strength MR Imaging and High Field Strength MR Imaging. Radiology 181:121-127, 1992.
139. Mettler FA. Use of Potassium Iodine in the General Population Around Chernobyl. J Rad Pro 12:159-165, 1992.

Fred A. Mettler, Jr., M.D., M.P.H.
Curriculum Vitae

PUBLICATIONS (continued):

140. Schull WJ, Benjamin SA, Bonville A, Mettler FA, et al. Report of the Committee on an assessment of CDC Radiation: Dose Reconstruction for the Fernald Nuclear Facility, National Academy Press, Washington D.C., 1992.
141. Mettler FA, Royal HD, Kuramoto A. Health Impact, Independent Clinical Health Studies. The International Chernobyl Conference: Proceedings of an International Conference. International Atomic Energy Agency. Vienna, 1991 (ISBN 92-0-129391-7).
142. Sinclair W, Brill A, Lushbaugh CC, Keriakes JG, Robertson JS, Mettler FA, et al. Misadministration of Radioactive Material in Medicine - Scientific Background. NCRP Commentary No 7. National Council on Radiation Protection and Measurements, Bethesda MD, 1991.
143. Mettler FA. Exposure of the United States Population from Medical Radiation. Issues in Radiation Protection, National Council on Radiation Protection and Measurements, Proceedings No. 15. Bethesda, MD, 1993.
144. Mettler FA. Quantities, Units, and Concepts in Radiation Protection. Pol J Nuc Med, Warsaw, 1993.
145. Mettler FA, Briggs JE. Health Support of Chernobyl. Pol J Nuc Med, Warsaw, 1993.
146. Bartow SA, Pathak DR, Mettler FA, et al. Breast mammographic pattern: a concentration of confounding and breast cancer risk factors. Am J Epidemiol 15(142)(8):813-19.
147. Mettler FA, Briggs J, Carchman R, et al. Radiology Use in United States Hospitals 1980-1990. Radiol 189:377-380, 1993.
148. Mettler FA. UNSCEAR and Historical Aspects of Radiation Risk Estimates. Environment International 20:681-683, 1994.
149. Mettler F, Briggs J, Bresch J, Schaufield B. A Survey of the American College of Radiology Diagnostic In-Training Examination. Investigative Radiol 29:726-728, 1994.
150. Schull W, Mettler F, Miller R, et al. Adverse Reproductive Outcomes in Families of Atomic Veterans. The Feasibility of Epidemiological Studies. Natl Acad Press, 1995.
151. Mettler F, Kelsey C, et al. Effect of Double Loading Cassettes on Image Quality and Radiation Dose. Medical Physics 23:239-240, 1996.
152. Mettler F, Upton A, Kelsey C, et al. Benefits versus Risks Mammography: A Critical Reassessment. Cancer 77:903-909, 1996.

Fred A. Mettler, Jr., M.D., M.P.H.
Curriculum Vitae

PUBLICATIONS (continued):

153. Martinez-Siemel M, Mettler F, Sell J, et al. Use of X-rays in the Last Six Months of Life. *Radiology* 200:811-819, 1996.
154. Mettler F. The International Chernobyl Project, *IAEA Bulletin* 3:33-36, 1996.
155. Mettler F, Becker D, et al. Chernobyl One Decade Later. *J Med*, December, 1996.
156. Mettler F. Overview of the International Chernobyl Project Health Effects Int. Atomic Energy Agency Updating Report, Vienna, Pgs. 96-99, 1996.
157. Mettler F, Upton A. Radiation Risks in Mammography, *Breast Diseases Quarterly* 7:234-236, 1996.
158. Mettler F, Brigs J. Overview of Large Scale Disasters: A Health Study of the Population Around Chernobyl. *Prehosp And Disaster Med* 11:92/96-97, 1996.
159. Mettler FA, Rosenberg R, Henney JE. Breast Cancer Screening in Younger Women. *Lancet* 1997 (in press).

MONOGRAPHS AND BOOK CHAPTERS:

- Mettler FA. Manifestations of Drug Toxicity. *Curr Prog Diag Radiol*, Year Book Publishers. July, 1979.
- Roberts KT, Mettler FA. Evaluation of the Pelvic and Abdominal Lymphatic System. *Curr. Prob Diag Radiol* (1-55). Year Book Publishers 1979 (1-56).
- Mettler FA, Wicks JD, Christie JH. Biliary Imaging: A New Look. *Curr Prob in Diag Radiol* Year Book Publishers, New York, 1980, 1-38.
- Starchman DE, Mettler FA, et al. Radiation Biology Syllabus Starchman DE, ed) Radiological Society of North America, 1986.
- Mettler FA. Update on the UNSCEAR Report in Biological Risks of Medical Irradiation *Medical Physics*, Monograph No. 5. AAPM Monograph Series, American Institute of Physics, New York, 78-91, 1980.
- Mettler FA, Thornbury JR, Wicks JD. Diagnostic Imaging Evaluation in Genitourinary Cancer Surgery. Crawford DE and Borden TA (eds). Lea & Febiger, Philadelphia, PA. 1982, 427-49.
- Mettler FA, Bartow SA. Histopathology of Mammographic Parenchymal Patterns. *Advance in Surgical Pathology*, 1981.

Fred A. Mettler, Jr., M.D., M.P.H.
Curriculum Vitae

Monographs and Book Chapters (continued):

Mettler FA, Porter SW. The Emergency Response to Accidents in Management of Wilderness and Environmental Emergencies. Auerbach & Geehr Eds., Macmillan & Co. 1983.

Eckel CG, Mettler FA. Computers in GI Nuclear Medicine, in: Contemporary Issues in Nuclear Medicine. Churchill Livingstone, Inc., 1985.

Williams, AG, Mettler FA, Christie JH. Hepatobiliary Nuclear Medicine, in Volume 2, Churchill Livingstone, Inc. 1985.

Mettler FA, Drum D, Royal HD. Management of Pediatric Radiation Accidents, in Pediatric Emergencies, Lea & Febiger, Philadelphia, PA. 1986.

Eckel CG, Williams AG, Mettler FA. Image Processing in Nuclear Medicine, in Computers & Nuclear Medicine, Churchill Livingstone, New York, NY. 1986.

Mettler FA, Eckel CG, Stevens G, et al. Magnetic Resonance Imaging in Cardiovascular Disease, in: Magnetic Resonance Imaging and Spectroscopy, Churchill Livingstone, New York, NY, June 1986.

Mettler FA, Dougherty S, Turlington B. Soft Tissue Activity on Bone Scans in Bone Scanning and Densitometry, Churchill Livingstone, Inc., New York, NY 1987.

Mettler FA, Monsein L, Rosenberg R. Radiopharmaceuticals and the Normal Bone Scan, in: Bone Scanning and Densitometry, Churchill Livingstone, Inc., New York, NY 1987.

Mettler FA, Emory TH. Radionuclide Bone Scanning in Arthritics' Metabolic and Miscellaneous Diseases, in: Bone Scanning and Densitometry, Churchill Livingstone, New York, NY 1987.

Keck G, Christie JH, Mettler FA. Benign Bone Tumors and Tumor-like Conditions in Bone Scanning and Densitometry, Churchill Livingstone, Inc., New York, NY 1988.

Weissman H, Mettler FA. Nuclear Medicine of the Alimentary Tract. In: Radiology: Diagnosis/Imaging/intervention. Taveras J, Ferucci J (eds), Lippincott, Philadelphia, PA 1988.

Mettler FA, Kelsey CA. Fundamentals of Radiation Accidents in Medical Management of Radiation Accidents, CRC Press, Orlando, FL 1989.

Mettler FA, Ricks RC. Historical Aspects of Radiation Accidents (ibid).

Mettler FA, Allen SN. Military Radiation Accidents. (ibid).

Mettler FA. Assessment and Management of Local Radiation (ibid).

Fred A. Mettler, Jr., M.D., M.P.H.
Curriculum Vitae

Monographs and Book Chapters (continued):

Mettler FA, Marshall J. Hospital Preparation and Drills (ibid).

Rosenberg R, Mettler FA. Emergency Room Management of Radiation Accidents (ibid).

Mettler FA. Effects of Whole Body Irradiation (ibid).

Marshall J, Mettler FA. Long Term Follow-up of Patients Involved in Radiation Accidents (ibid).

Kelsey CA, Mettler FA. Instrumentation for Radiation Accidents (ibid).

Mettler FA. Medical Exposure: United Nations Scientific Committee on the Effects of Atomic Radiation. 1988 Report to the General Assembly, New York, 1988.

Williamson MR, Mettler FA. Genitourinary Imaging, in Imaging 1990, Little Brown and Co., Boston, MA, 1989.

Rosenberg R, Mettler FA. Radiologic Evaluation of Genitourinary Cancer, in Genitourinary Cancer Surgery (Crawford, D, ed.), Lea and Febiger, in press.

Mettler FA. The Patient With Hepatic or Hepatobiliary Disease. Syllabus ACR Categorical Course in Nuclear Radiology, Seattle, WA 1989.

Mettler FA. X-ray Exposure to Technologists During Fluoroscopy, Chapter 16, Biological Effects of Radiation, ACR Syllabus, Reston, VA 1990.

Mettler FA. Exposure to the Hands of Radiologists and Technologists, Chapt 17, 1990 (ibid).

Mettler FA. Radionuclides & X-rays Outside Radiography Departments, Chap 18, 1990 (ibid).

Fabricant J, Mettler FA, Wagner L. Gonadal Irradiation & Effects on Descendants, Chapt 20, 1990 (ibid).

Mettler FA. Radiation Emergencies, Chapter 27, 1990 (ibid).

Mettler FA. Health Effects, The International Chernobyl Project. International Atomic Energy Agency. ISBN 92-0-129091-8. Vienna, 1991.

Mettler FA. Health Impact of the Chernobyl Accident, Technical Report of the International Chernobyl Project. International Atomic Energy Agency. Vienna, 1991.

Mettler FA, Briggs JE. A Health Study of the Population Around Chernobyl. United Nations Educational Scientific and Cultural Organization (UNESCO). Impact, Volume 64, 1991.

Fred A. Mettler, Jr., M.D., M.P.H.
Curriculum Vitae

Monographs and Book Chapters (continued):

Mettler FA. Biological Effects of Radiation in Radiological Emergency Medical Response
Bushberg J, Brown D, Mettler FA, (eds). Academic Press, 1992.

Mettler FA. Types of Radiation Accidents (ibid).

Mettler FA. Preparation to Receive a Radioactively Contaminated and Injured Patient (ibid).

Mettler FA. Sample Procedures for Hospital Management of Radiation Accidents, (ibid).

Mettler FA. Windscale, SL1, Three Mile Island and Industrial Radiation Accidents in Evaluation
of Health Consequences of Radiation Accidents. Guskova A, Mettler FA (eds.) (Moscow, 1992)
in Russian.

Mettler FA. Long Term Programs for Evaluation of Radiation Effects (ibid).

Mettler FA. Evaluation of Acute Health Effects in Radiation Accidents (ibid).

Mettler FA. Evaluation of Intervention and Countermeasures in Accidents (ibid).

Mettler FA, Royal HD, Drum D. Radiation Accidents in Pediatric Emergency Medicine, 2nd ed, G.
Fleisher (ed.) Len & Febiger, Philadelphia, PA 1992.

Mettler FA, Briggs JE. A Health Assessment of the Chernobyl Power Plant Accident, 161-168,
in Radiation and Public Perception: Benefits and Risks. Young J, Yalow R (eds.). Advances in
Chemistry Series 243, 1995.

Mettler F. Reactor Accidents Lessons Learned, Radiation Risk: A Primer. American College of
Radiology, Reston, VA, 1996.

Mettler F, et al. Radiation Protection and Safety in Medicine Publication No. 73, International
Commission on Radiological Protection. Pergamon Press, Oxford, 1996.

Monographs & Book Chapters (subtotal): 51

Total (publications, etc.): 159 + 51 = 210

BOOKS:

Mettler FA, Guiberteau MJ. Essentials of Nuclear Medicine Imaging. Grune and Stratton New
York, NY, 1983 1st Edition, 2 printings sold out.

Mettler FA, Moseley RD. Medical Effects of Radiation, Grune and Stratton, New York, NY. June
1985.

Fred A. Mettler, Jr., M.D., M.P.H.
Curriculum Vitae

Books (continued):

Mettler FA (ed). Radionuclide Imaging of the GI Tract, Contemporary Issues in Nuclear Imaging, Volume 2, Churchill Livingstone, New York, NY, August 1985.

Mettler FA, Muroff L, Kulkari, M. Magnetic Resonance Imaging and Spectroscopy, Churchill Livingstone, New York, NY, October 1986.

Mettler FA, Guiberteau MJ. Essentials of Nuclear Medicine Imaging, Grune and Stratton, New York, NY, 2nd Edition. September 1985.

Mettler FA. Nuclear Imaging and Densitometry, Churchill Livingstone, New York, NY, 1988.

Wagner G, Mettler FA. Clinical Radiation Biology, in preparation, Amer Col Radiology Syllabus Series.

Mettler FA, Kelsey CA, Ricks RC. Management of Radiation Accidents, CRC Press, Orlando, FL. 1989.

Mettler FA. Imaging 1990, Little Brown and Company Boston, MA. 1989.

Mettler FA, Guiberteau MJ. Essentials of Nuclear Medicine Imaging (3rd Ed). Saunders, Philadelphia, PA. 1990.

Mettler FA. Medical Effects of Ionizing Radiation, 2nd Edition. Saunders, Philadelphia, PA. 1995.

Mettler FA. Essentials of Diagnostic Radiology. Saunders, Philadelphia, PA, 1996.

Bushberg J, Brown D, Mettler FA, (editors), Radiological Emergency Medical Response. Academic Press, 1995 (in press).

Mettler FA, Guiberteau MJ. Essentials of Nuclear Medicine Imaging (4th Edition). Saunders, Philadelphia, PA. 1997

Publications:	159
Monographs & Book Chapters (subtotal):	51
Books (subtotal):	14
Total (publications, books, etc.):	224

Fred A. Mettler, Jr., M.D., M.P.H.
Curriculum Vitae

CONTRACTS, GRANTS AND AWARDS:

Among the top ten investigators in terms of research money generated at the medical school in 1985.

1. James Picker Foundation Scholarship, June 1978-82
\$40,000
2. Development of Bromine 77 from the Los Alamos National Laboratory Pi Meson Facility, Department of Energy Contract, F. Mettler/Principal Investigator.
1981-84 - \$413,000
1984-87 - \$459,000
3. Benign Breast Study, National Cancer Institute, Co-Investigator
1979-83 - \$100,000
4. Special Service Agreement, United Nations General Assembly, 1982-88, Committee of Effects of Atomic Radiation
5. Synthesis of Radiolabeled Estrogens. Veterans Administration, F. Mettler, Principal Investigator
1985-87 - \$150,000

Fred A. Mettler, Jr., M.D., M.P.H.
Curriculum Vitae

PATENTS:

1. Hylarides MD, Mettler FA.
Improved Deamination of Aromatic Amines by Diazotisation
and Hydrogen Replacement in Presence of Hydrogen Peroxide. U.S. Patent No.
4,577,046 March 18, 1986.
2. Hylarides MD, Mettler FA.
New 1-Halo-o Estradiol(s) Used in Receptor Binding Assay Tests and Have
Greater Binding Activity than 4-Halo Compounds. U.S. Patent No. 4,584,137
April 22, 1987.
3. Hylarides MD, Mettler FA.
New 1-Fluoro or Radio-Fluoro Oestradiol Useful for In-Vivo Receptor Binding
Assays. U.S. Patent No. 4,676,932, June 30, 1987
4. Wolfe DM, Bassalleck B, Hartshorne MF, Kelsey CA, Mettler FA.
Digital Gamma Ray Imaging Device.
U.S. Patent Application SN 07/652,970

FRED A. METTLER, JR., M.D., M.P.H.

Dr. Fred Mettler is currently Professor and Chairman of the Department of Radiology at the University of New Mexico School of Medicine.

He graduated with a B.A. in Mathematics from Columbia University and in 1970 he received an M.D. degree from Thomas Jefferson University. He performed a rotating internship at the University of Chicago and subsequently completed a radiology and nuclear medicine residency at Massachusetts General Hospital. He received a Master's Degree in Public Health from Harvard University in 1975.

Dr. Mettler has authored over 220 scientific publications, including 14 books. He currently is the United States Representative to the United Nations for Radiation Effects and is one of the 13 members of the International Commission on Radiation Protection. He recently was the Health Effects Team Leader of the International Chernobyl Project and also serves as a consultant to the World Health Organization.

He lives in Albuquerque, New Mexico with his wife Gloria and two sons, Erik and Larsen.

April 1997

CURRICULUM VITAE

- Name:** Bruce A. Napier
- Date and Place of Birth:** 14 July 1953, Pittsburgh, PA, USA
- Citizenship:** U.S.A.
- Address:** (office) Pacific Northwest National Laboratory
P.O. Box 999
Richland, WA 99352
- Education:** B.S. Nuclear Engineering 1975 Kansas State University
M.S. Nuclear Engineering 1977 Kansas State University
- Professional Experience:** 1977-present: staff member at Pacific Northwest National Laboratory, operated for the U.S. Department of Energy by Battelle Memorial Institute; 1977-1980: Scientist (I); 1981-1983: Research Scientist (II); 1983-1990: Senior Research Scientist (III); 1990-present: Staff Scientist (IV)
- Professional certification:** American Board of Health Physics
- Field of Interest:** Environmental health physics, dose reconstruction, radiological risk assessment and performance assessment, computer modeling, emergency response
- Committee Assignments:** National Council on Radiation Protection and Measurements; Scientific Committee 64-22 on Design of Effective Effluent and Environmental Monitoring Systems (1998); Interagency Nuclear Safety Review Panel/Biomedical and Environmental Effects Subpanel - Member (1997 -); Nevada Risk Assessment/Management Program Peer Review Panel - Member (1996 -); Binational Protocol Advisory Group, Chernobyl-related thyroid cancer studies in Belarus and Ukraine (1998 -)
- Honors:** Recipient of 1987 "Health Physicist of the Year" award, Columbia Chapter, Health Physics Society. Nominated for 1991 "Engineer of the Year" award, Washington Society of Professional Engineers.
- Scientific publications:** Author and co-author of over 150 book chapters, articles, reports, and presentations, including:
- B.A. Napier, "Aquatic and Terrestrial Transport of Radionuclides," C.J. Maletskos, Ed., *Radiation Protection at Nuclear Reactors*, Medical Physics Publishing, Madison, Wisconsin (1995).

- Degteva, M.O., V.V. Khokhryakov, K.G. Suslova, L.S. Anspaugh, B.A. Napier, and A. Bouville. 1997. A Population Exposure Dose Reconstruction for the Urals Region, in *Assessing Health and Environmental Risks from Long-Term Radiation Contamination in Chelyabinsk, Russia*, American Association for the Advancement of Science, Washington, D.C.
- Napier, B.A. "Hanford Environmental Dose Reconstruction Project", *HPS Newsletter*, XXII(6), 6-8, Health Physics Society (1994).
- D.B. Shipler, B.A. Napier, W.T. Farris, M.D. Freshley, "The Hanford Environmental Dose Reconstruction Project - An Overview", *Health Phys.* 71, 532-544, (1996).
- W.T. Farris, B.A. Napier, T.A. Ikenberry, D.B. Shipler. "Radiation Doses from Hanford Site Releases", *Health Phys.* 71, 588-601, (1996).
- R.O. Gilbert, B. A. Napier, A. M. Liebetrau, H. A. Haerer. "Statistical Aspects of Reconstructing the I-131 Dose to the Thyroid of Individuals Living Near the Hanford Site in the Mid-1940s", *Radiation Protection Dosimetry* 36, 195-198, (1991).
- R.O. Gilbert, R. O., J. C. Simpson, B. A. Napier, H. A. Haerer, A. M. Liebetrau, A. J. Ruttenbur, S. Davis. "Statistical Aspects of the Hanford Environmental Dose Reconstruction Project and the Hanford Thyroid Disease Study", *J. Radiation Research* 124,354-355 (1990).
- D.L. Strenge, B.A. Napier. "Radiological Assessment." *Engineering Geology* 26, 405-410 (1989)
- M.O Degteva, E. Drozhko, L.R. Anspaugh, B.A. Napier, A.C. Bouville, C.W. Miller. *Dose Reconstruction for the Urals Population; Joint Coordinating Committee on Radiation Effects Research Project 1.1 - Final Report*, UCRL-ID-123713, Lawrence Livermore National Laboratory, Livermore, California (1996).
- B.A. Napier, B.A., B.L. Harper, N.K. Lane, D.L. Strenge, R.B. Spivey. *Human Scenarios for the Screening Assessment - Columbia River Comprehensive Impact Assessment*, DOE/RL-96-16-a, U.S. Department of Energy, Richland, Washington (1996).
- B.A. Napier, J.C. Simpson, P.W. Eslinger, J.V. Ramsdell, Jr., M.E. Thiede, W.H. Walters. *Validation of HEDR Models*, PNWD-2221 HEDR, Battelle Pacific Northwest Laboratories, Richland, Washington (1994).
- W.T. Farris, B.A. Napier, T.A. Ikenberry, J.C. Simpson, D.B. Shipler. *Atmospheric Pathway Dosimetry Report, 1944-1992, Hanford Environmental Dose Reconstruction Project*, PNWD-2228 HEDR, Battelle Pacific Northwest Laboratories, Richland, Washington (1994).
- W.T. Farris, B.A. Napier, J.C. Simpson, S.F. Snyder, D.B. Shipler. *Columbia River Pathway Dosimetry Report, 1944-1992, Hanford Environmental Dose Reconstruction Project*, PNWD-2227 HEDR, Battelle Pacific Northwest Laboratories, Richland, Washington (1994).
- C.D. Leigh, B.M. Thompson, J.E. Campbell, D.E. Longsine, R.A. Kennedy, B.A. Napier. *User's Guide for GENII-S: A Code for Statistical and Deterministic Simulations of Radiation Doses to Humans from Radionuclides in the Environment*, SAND91-0561A, Sandia National Laboratories, Albuquerque, New Mexico (1992).
- B.A. Napier, R. A. Peloquin, D. L. Strenge, J. V. Ramsdell. *HANFORD ENVIRONMENTAL DOSIMETRY UPGRADE PROJECT. GENII - The Hanford Environmental Radiation Dosimetry Software System. Volume 1: Conceptual Representation, Volume 2: Users' Manual, Volume 3: Code Maintenance Manual*. PNL-6584, Vols. 1-3, Pacific Northwest Laboratory, Richland, Washington (1988).

BRUCE A. NAPIER

Staff Scientist
Risk Analysis and Health Protection
Environmental Technology Division
Pacific Northwest National Laboratory

EDUCATION

B.S., Nuclear Engineering, Kansas State University 1975
M.S., Nuclear Engineering, Kansas State University 1977

EXPERIENCE

Mr. Napier works with the development and operation of models concerned with the environmental transport of radiological and chemical contaminants. His professional experience includes mathematical modeling and calculation of effects to individuals and populations from releases of various contaminants to the environment, as well as management of specific projects. His expertise and experience lie in the following areas:

Dose Reconstruction. (1987-1998) Mr. Napier was the Technical Integrator and Chief Scientist for the Hanford Environmental Dose Reconstruction (HEDR) Project. In this position, he brought together the information from various tasks, and estimated and interpreted the resulting doses. He was the Project interface with the Fred Hutchinson Cancer Research Center's Hanford Thyroid Disease Study. He is now a principal investigator in the US/Russia Joint Coordinating Committee on Radiation Effects Research Projects 1.1 and 1.3 on dose reconstruction for the public around the Russian Mayak (Chelyabinsk-65) nuclear materials production site in Siberia.

Computer Modeling. (1977-1998) Mr. Napier designs, and directs maintenance and operation of, computer programs to simulate transport and effects of environmental contaminants. He is a member of the Hanford Environmental Dose Overview Panel, which monitors all Hanford-related environmental dosimetry calculations. He managed the development of the well-known environmental radiation dose code GENII. He is currently in the process of designing the next generation of stochastic environmental exposure, dose, and risk computer codes for radionuclides.

Environmental Analysis. (1977-1998) Mr. Napier has developed exposure scenarios and performed dose calculations for a wide variety of NEPA-related documentation, including the Generic Environmental Impact Statement on Management of Commercially Generated Nuclear Waste; the Environmental Impact Statements on Disposal of Hanford Defense Nuclear Wastes, for Decommissioning the Surplus Production Reactors, and for restart of the PUREX facility; and for an NRC program on exemption from licensing of slightly contaminated metals. He recently completed a comprehensive study of chemicals and radionuclides released from the Department of Energy's Hanford Site into the Columbia River, as well as an Office of Naval Research project evaluating radionuclides in the Arctic Ocean. He has contributed to studies for decommissioning of a low-level nuclear waste burial ground, for a generic study on the environmental effects of proposed uranium production in British Columbia, and for a study of the effects of molybdenum mine tailings in a northern Pacific fjord. He developed a method for determining allowable levels of residual radioactive contamination in soil for decommissioning and remedial action programs, a topic for which he won the "Best Paper" award at the 1982 American Nuclear Society Winter Annual Meeting.

International Activities. (1989-1998) Mr. Napier was a member of the U.S./former U.S.S.R. Joint Coordinating Committee on Civilian Nuclear Reactor Safety, Task 7.1.E on terrestrial and aquatic radioecology, and is currently is leader of the Joint Coordinating Committee on Radiation Effects Research

Projects 1.1 and 1.3. He works with members of the Russian Academy of Sciences, Ukrainian Ministry of Chernobyl, Scientific Production Association "Typhoon" in Obninsk, the Mayak Production Association in Ozersk, and the Urals Research Center for Radiation Medicine in Chelyabinsk. He has visited Moscow, Obninsk, Novozybkov, Kiev, the Chernobyl site, Ozersk, and Chelyabinsk. Mr. Napier is a consultant to the International Atomic Energy Agency, and a participant in the IAEA's Cooperative Research Program on Biosphere Modeling and Assessment (BIOMASS). He has contributed to the North Atlantic Treaty Organization (NATO) Committee on the Challenges of Modern Society. Mr. Napier acted as a host for a visiting Russian scientist under the Department of Commerce's Special American Business Internship Trainee (SABIT) program.

Hazardous Wastes. (1985) Mr. Napier prepared a revised version of the EPA Hazard Ranking System for ranking waste sites. This revision explicitly incorporates both chemical and radiological hazards into the existing HRS framework.

Emergency Response. (1985-1998) Mr. Napier is the Assessment Manager for the Hanford Unified Dose Assessment Center (UDAC), the Hanford Site central emergency response group. He is also a member of the DOE Region 8 emergency response team. Following the Soviet accident at Chernobyl, Mr. Napier's calculations of long-term dose to the Ukrainian population were shown to very closely parallel the official Soviet estimates. He has completed the FEMA Radiological Emergency Response Training Course.

Public Interactions. Mr. Napier has had media training, and deals regularly with the public and the press.

COMMITTEE ASSIGNMENTS

Mr. Napier has acted on several national committees, including:

Environmental Protection Agency Science Advisory Board (1985-1996);
Radiation Advisory Committee - Consultant, and
Hazard Ranking System Review Subcommittee - Member

Department of Energy, Performance Assessment Task Team - Member/ Alternate member (1990-1994).

National Council on Radiation Protection and Measurements:
Scientific Committee 64 on Radionuclides in the Environment, Task Group 7 on Contaminated Soil as a Source of Radioactive Exposure - Member (1986 - 1990)
Scientific Committee 64-22 on Design of Effective Effluent and Environmental Monitoring Systems (1998)

Interagency Nuclear Safety Review Panel/Biomedical and Environmental Effects Subpanel - Member (1997 -)

Nevada Risk Assessment/Management Program Peer Review Panel - Member (1996-1998)

Mr. Napier has also acted as a consultant to the International Atomic Energy Agency, on the topic of "The Exemption from Regulatory Control of Wastes Arising from the Use of Radionuclides in Hospitals and Research Laboratories." He also teaches international courses on environmental dosimetry for the IAEA.

PROFESSIONAL CERTIFICATION/AWARDS

Mr. Napier is a Diplomate of the American Board of Health Physics (1986, 1990, 1996)

Recipient of 1987 "Health Physicist of the Year" award, Columbia Chapter, Health Physics Society.

Nominated for 1991 "Engineer of the Year" award, Washington Society of Professional Engineers.

PROFESSIONAL AFFILIATIONS

Health Physics Society

American Nuclear Society

PUBLICATIONS

Thesis:

Napier, B. A. 1977. Axial Dependence of Nuclear Fuel Management. M.S. Thesis, Kansas State University, Manhattan, Kansas.

Book Chapters:

Napier, B.A. 1995. "Aquatic and Terrestrial Transport of Radionuclides.", C.J. Maletskos, Ed., Radiation Protection at Nuclear Reactors. Medical Physics Publishing, Madison, Wisconsin.

Articles:

Degteva, M.O., V.V. Khokhryakov, K.G. Suslova, L.S. Anspaugh, B.A. Napier, and A. Bouville. 1997. A Population Exposure Dose Reconstruction for the Urals Region, in Assessing Health and Environmental Risks from Long-Term Radiation Contamination in Chelyabinsk, Russia. American Association for the Advancement of Science, Washington, D.C.

Napier, B.A. 1994. "Hanford Environmental Dose Reconstruction Project". HPS Newsletter. XXII, 6, pp. 6-8, Health Physics Society

Shipler, D.B., B.A. Napier, W.T. Farris, M.D. Freshley. 1996. "The Hanford Environmental Dose Reconstruction Project - An Overview", Health Physics 71:532-544. (PNWD-SA-3959 HEDR)

Farris, W.T., B.A. Napier, T.A. Ikenberry, and D.B. Shipler. 1996. "Radiation Doses from Hanford Site Releases", Health Physics 71:588-601. (PNWD-3968 HEDR)

Thiede, M.E., D.H. Denham, B.A. Napier, and E.I. Mart. 1994. "The Challenges of Reconstructing Iodine-131 Contaminant Levels from Historical Environmental Monitoring Data", submitted to Health Physics.

Gilbert, R. O., B. A. Napier, A. M. Liebetrau, and H. A. Haerer. 1991. "Statistical Aspects of Reconstructing the I-131 Dose to the Thyroid of Individuals Living Near the Hanford Site in the Mid-1940s", Radiation Protection Dosimetry 36:195-198.

Gilbert, R. O., J. C. Simpson, B. A. Napier, H. A. Haerer, A. M. Liebetrau, A. J. Ruttenbur, and S. Davis. 1990. "Statistical Aspects of the Hanford Environmental Dose Reconstruction Project and the Hanford Thyroid Disease Study". *J. Radiation Research* 124:354-355.

Streng, D.L., and B.A. Napier. 1989. "Radiological Assessment," *Engineering Geology*, 26:405-410.

Kennedy, W. E., Jr., B. A. Napier and J. K. Soldat. 1983. "Advanced Disposal Systems for Transuranic Waste: Preliminary Disposal Criteria for Plutonium- 239 at Hanford." *Nuclear and Chemical Waste Management* 4:103-111.

Napier, B. A., and C. L. Timmerman. 1978. Developing Isotopic Functions. PNL-SA-6594, ISPO-27, Pacific Northwest Laboratory, Richland, Washington.

Napier, B. A., et al. 1976. "Design of an In-Core Fast Neutron Generator." *Nuclear Instruments and Methods* 138:463-465.

Technical Reports:

Degteva, M., L.R. Anspaugh, B.A. Napier, A. Bouville, and C.W. Miller. 1998. Development of an Improved Dose Reconstruction System for the General Population Affected by the Operation of the Mayak Production Association. Progress Report on Project 1.1. Urals Research Center for Radiation Medicine, Chelyabinsk, Russia

Vorobiova, M.O., M.O. Degteva, D.S. Burmistrov, N.G. Safronova, V.P. Kozheurov, L.R. Anspaugh, and B.A. Napier. 1998. Analytical Review of Historical Monitoring Data and Modeled Concentrations of Radionuclides in Techa River Water and Sediments at Specific Locations Over Time. Description of Hydrologic Data and Models Employed. Urals Research Center for Radiation Medicine, Chelyabinsk, Russia

International Atomic Energy Agency. 1998. Clearance of materials resulting from the use of radionuclides in medicine, industry, and research. IAEA-TECDOC-1000. International Atomic Energy Agency, Vienna, Austria

North Atlantic Treaty Organization (NATO). 1998. Transport of Radioactive Contaminants through Rivers to the Sea, Committee on Challenges of Modern Society, Cross-Border Environmental Problems Emanating from Defense-Related Installations and Activities, Report No. 225, NATO

Layton, D., M. Varela, R. Edson, and B. Napier. Eds. 1997. Radionuclides in Arctic Seas from the Former Soviet Union: Potential Health and Ecological Risks. Arctic Nuclear Waste Assessment Program, Office of Naval Research, Washington, D.C.

INSRP. 1997. Biomedical and Environmental Effects Subpanel Report for Cassini. Interagency Nuclear Safety Review Panel, National Security Council, Washington, D.C.

U.S. Department of Energy. 1997. Columbia River Comprehensive Impact Assessment: Screening Assessment and Requirements for a Complete Assessment. DOE-RL 96-16 Rev. 1, U.S. Department of Energy, Richland, Washington

Bentz, E.J., J. Applegate, C. Case, S.Y. Chen, T. Glickman, B.A. Napier, and G. Whelan. 1997. Peer Review of the NRAMP Three Year Science Work Plan, NRAMP Peer Review Panel, Harry Reid Center for Environmental Studies, University of Nevada Las Vegas, Las Vegas, Nevada.

Bentz, E.J., S.Y. Chen, and B.A. Napier. 1997. Peer Review of the NRAMP Draft Report: "A Methodology for Estimating Residual Radionuclides from Underground Device Testing in Nevada", NRAMP Peer Review Panel. Harry Reid Center for Environmental Studies, University of Nevada Las Vegas, Las Vegas, Nevada.

Degteva, M.O., E. Drozhko, L.R. Anspaugh, B.A. Napier, A.C. Bouville, and C.W. Miller. 1996. Dose Reconstruction for the Urals Population: Joint Coordinating Committee on Radiation Effects Research Project 1.1 - Final Report. UCRL-ID-123713, Lawrence Livermore National Laboratory, Livermore, California

Napier, B.A., B.L. Harper, N.K. Lane, D.L. Sternge, and R.B. Spivey. 1996. Human Scenarios for the Screening Assessment - Columbia River Comprehensive Impact Assessment. DOE/RL-96-16-a, U.S. Department of Energy, Richland, Washington.

B.A. Napier. 1996. Assessment Advances from the Hanford Environmental Dose Reconstruction, Society for Risk Analysis annual meeting held in New Orleans, Louisiana, 8-11 December 1996.

Bentz, E.J., J. Applegate, C. Case, S.Y. Chen, T. Glickman, B.A. Napier, and G. Whelan. 1996. Peer Review of the NRAMP Work Plan. NRAMP Peer Review Panel. Harry Reid Center for Environmental Studies, University of Nevada Las Vegas, Las Vegas, Nevada.

Bentz, E.J., J. Applegate, C. Case, S.Y. Chen, T. Glickman, B.A. Napier, and G. Whelan. 1996. Peer Review of the NRAMP Draft Preliminary Risk Assessment (PRA) for DOE Sites in Nevada. NRAMP Peer Review Panel, Harry Reid Center for Environmental Studies, University of Nevada Las Vegas, Las Vegas, Nevada.

Napier, B.A. 1996. Description of the Hanford Test Scenario. International Programme on Biosphere Modeling and Assessment Methods - BIOMASS. International Atomic Energy Agency, Vienna, Austria

B.A. Napier. 1996. Aquatic and Terrestrial Dispersion and Screening Models. PNNL-SA-27802. Pacific Northwest National Laboratory, Richland, Washington. Presented at the Harvard School of Public Health, Boston, Massachusetts.

B.A. Napier 1996. Limitations to Pathway Analysis. presented as a Health Physics Society Professional Enrichment Program course. Seattle, Washington, 25 July 1996.

B.A. Napier. 1996. Resolving Issues with Exposure Analysis: The Columbia River Comprehensive Impact Assessment, presented at the Laboratory Directors Standards Steering Group/CRESP A Workshop on Improving Exposure Analysis for DOE Sites, San Francisco, California, 4 September 1996.

B.A. Napier. 1996. Use and Presentation of Data. presented at the CRCIA Team Meeting, Richland, Washington, 13 August 1996

B.A. Napier. 1996. Public Radiation Dose Reconstruction and Epidemiology Studies at Mayak (Russia's Hanford), presented at a University of Washington seminar, Seattle, Washington, 29 February 1996
presented at the Health Physics Society's Summer School, Seattle, Washington, 16 July 1996

B.A. Napier. 1996. Developing Exposure Scenarios for Human Health Risk Analysis. presented at the CRCIA Team Meeting, Richland, Washington, 12 December 1995.

B.A. Napier . 1996. Tentative Human Health Risk Assessment Results, presented at the CRCIA Team Meeting, and the DOE Managers Meeting, Richland, Washington, 26 October 1996.

B.A. Napier. 1995. "A History of Hanford's Operations", PNL-SA-26654, presented at the Columbia River Comprehensive Impact Assessment Peer Reviewers' Workshop in Richland August 16, 1995.

B.A. Napier. 1995. "Estimating Historical Doses to Real People", PNL-SA-26472 S, presented at the workshop on "Studies of Radiation Effects on Population in Urals and Other Regions" in St. Petersburg, Russia. July 11, 1995.

Napier, B.A. 1995. Quantifying Uncertainties in Risk Assessments, PNL-SA-25762 S. Presented at "Chemical Risk Assessment for Regulatory Compliance and Dose Reconstruction," Kiawah Island, South Carolina, to staff of the Washington Department of Health, Olympia, Washington, and to local contractors, regulators, and stakeholders involved in Columbia River remediation.

Napier, B.A., and W.L. Templeton. 1995. "Data Requirements for Risk Assessment," PNWD-SA-4203 A, Presented at the Workshop on "Monitoring of Nuclear Contamination in Arctic Seas," Washington, D.C., January 18-19.

Napier, B.A., N.C. Barishko, D.A. Heise-Craff, M.F. Jarvis, and S.F. Snyder. 1995. Identifying Contaminants of Concern; Columbia River Comprehensive Impact Assessment, PNL-10400, Pacific Northwest Laboratory, Richland, Washington.

Napier, B.A. 1994. Identifying Contaminants of Concern, PNL-25442 S, Pacific Northwest Laboratory, Richland, Washington

Napier, B.A., J.C. Simpson, P.W. Eslinger, J.V. Ramsdell, Jr., M.E. Thiede, and W.H. Walters. 1994. Validation of HEDR Models, PNWD-2221 HEDR, Battelle Pacific Northwest Laboratories, Richland, Washington

Farris, W.T., B.A. Napier, T.A. Ikenberry, J.C. Simpson, and D.B. Shipler. 1994. Atmospheric Pathway Dosimetry Report, 1944-1992, Hanford Environmental Dose Reconstruction Project, PNWD-2228 HEDR, Battelle Pacific Northwest Laboratories, Richland, Washington

Farris, W.T., B.A. Napier, J.C. Simpson, S.F. Snyder, and D.B. Shipler. 1994. Columbia River Pathway Dosimetry Report, 1944-1992, Hanford Environmental Dose Reconstruction Project, PNWD-2227 HEDR, Battelle Pacific Northwest Laboratories, Richland, Washington

Shipler, D.B., and B.A. Napier. 1994. HEDR Modeling Approach, PNWD-1983 HEDR Rev. 1, Battelle Pacific Northwest Laboratories, Richland, Washington

Snyder, S.F., W.T. Farris, B.A. Napier, T.A. Ikenberry, and R.O. Gilbert. 1994. Parameters Used in the Environmental Pathways and Radiological Dose Modules (DESCARTES, CIDER, and CRD) of the Hanford Environmental Dose Reconstruction Integrated Codes (HEDRIC). PNWD-2023 HEDR Rev. 1, Battelle Pacific Northwest Laboratories, Richland, Washington

Shipler, D.B., B.A. Napier, W.T. Farris, and M.D. Freshley. 1994. "Overview of the Hanford Environmental Dose Reconstruction Project," PNWD-3959 HEDR. Presented at the 39th Annual Meeting of the Health Physics Society, San Francisco, California, and at Nuclear Engineering Department seminar, Corvallis, OR

Napier, B.A., J.C. Simpson, and T.A. Ikenberry. 1994. "Modeling of Environmental Accumulation of Radioactive Materials Historically Released to the Atmosphere from Hanford", Presented at the 39th Annual Meeting of the Health Physics Society, San Francisco, California

Napier, B.A., W.T. Farris, and T.A. Ikenberry. 1994. "Reference Individual Doses Resulting from Hanford Atmospheric Releases, 1944-1992", Presented at the 39th Annual Meeting of the Health Physics Society, San Francisco, California

Liebow, E.B., T.A. Ikenberry, J.C. Simpson, and B. A. Napier. 1994. "Dose Reconstruction Research at Hanford Involving Native Americans", Presented at the 39th Annual Meeting of the Health Physics Society, San Francisco, California

Farris, W.T., and B.A. Napier. 1994. "Doses from Exposures to Radioactive Materials Released to the Columbia River." Presented at the 39th Annual Meeting of the Health Physics Society, San Francisco, California

Napier, B.A., and J.C. Simpson. 1994. "Validation of Models for the HEDR Project," Presented at the 39th Annual Meeting of the Health Physics Society, San Francisco, California

Napier, B.A. 1994. Uncertainty/Sensitivity Analyses for Atmospheric Pathway Doses, PNWD-SA-4054 S HEDR, Battelle Pacific Northwest Laboratories, Richland, Washington

Napier, B.A. 1994. Uncertainty/Sensitivity Analyses for Columbia River Pathway Doses. PNWD-SA-4054 S HEDR, Battelle Pacific Northwest Laboratories, Richland, Washington

Napier, B.A. 1994. Update on HEDR Model Validation Activities, PNWD-SA-4054 S HEDR, Battelle Pacific Northwest Laboratories, Richland, Washington

Napier, B.A. 1994. Validation of HEDR Models. PNWD-SA-3957 S HEDR, Battelle Pacific Northwest Laboratories, Richland, Washington

Napier, B.A. 1993. Radiation Dose Assessment. BN-SA-3911 HEDR, Battelle Pacific Northwest Laboratories, Richland, Washington

Napier, B.A., J. C. Simpson, P. W. Eslinger, J. V. Ramsdell, M. E. Thiede, W. H. Walters, M. Richmond. 1993. HEDR Model Validation Activities, BN-SA-3902 HEDR, Battelle Pacific Northwest Laboratories, Richland, Washington

Napier, B.A. 1993. Sensitivity of Dose Results to Cow Feeding Regime, BN-SA-3836 S HEDR, Battelle Pacific Northwest Laboratories, Richland, Washington

Napier, B.A., D.B. Shipler, W.T. Farris, J.C. Simpson, C.M. Heeb, J.V. Ramsdell, Jr., T.A. Ikenberry, W.H. Walters, M.D. Freshley. 1993. Environmental Modeling for the Hanford Environmental Dose Reconstruction Project, BN-SA-3832 HEDR, Battelle Pacific Northwest Laboratories, Richland, Washington

Napier, B.A., R.O. Gilbert, J.C. Simpson, J.V. Ramsdell, Jr., M.E. Thiede, and W.H. Walters. 1993. HEDR Model Validation Plan. PNWD-2156 HEDR, Battelle Pacific Northwest Laboratories, Richland, Washington

Napier, B.A., 1993. Approach for Calculating Population Doses Using the CIDER Computer Code, PNWD-2127 HEDR, Pacific Northwest Laboratories, Richland, Washington

Napier, B.A., 1993. Determination of Key Radionuclides and Parameters Related to the Dose from the Columbia River Pathway. BN-SA-3768 HEDR, Pacific Northwest Laboratories, Richland, Washington

- Schreckhise, R.G., K. Rhoads, J.S. Davis, B.A. Napier, and J.V. Ramsdell. 1993. Recommended Environmental Dose Calculation Methods and Hanford-Specific Parameters, PNL-3777 Rev 2, Pacific Northwest Laboratory, Richland, Washington
- Napier, B.A., and W.T. Farris. 1993. The Determination of Radionuclides Contributing to Dose from the Columbia River Pathway, and Other Results of Scoping Studies. BN-SA-3735A HEDR, Pacific Northwest Laboratories, Richland, Washington
- Napier, B.A., T.A. Ikenberry, J.C. Simpson, and D.B. Shipler. 1993. Stochastic Food Network and Dose Models for Environmental Dose Reconstruction, PNL-SA-21099 A HEDR, Pacific Northwest Laboratory, Richland, Washington
- Ikenberry, T. A., and B. A. Napier. 1992. Scoping Calculation for Components of the Cow-Milk Dose Pathway for Evaluating the Dose Contribution from Iodine-131. BN-SA-3661 HEDR, Battelle Pacific Northwest Laboratories, Richland, Washington
- Napier, B.A. 1992. Determination of Radionuclides and Pathways Contributing to Dose in 1945, BN-SA-3674 HEDR, Battelle Pacific Northwest Laboratories, Richland, Washington
- Napier, B.A. 1992. Determination of Radionuclides and Pathways Contributing to Cumulative Dose, BN-SA-3673 HEDR, Battelle Pacific Northwest Laboratories, Richland, Washington
- Napier, B.A. 1992. Determination of Dose Distributions and Parameter Sensitivity, BN-SA-3675 HEDR, Battelle Pacific Northwest Laboratories, Richland, Washington
- Napier, B.A., and S.F. Snyder. 1992. Determination of the Feasibility of Reducing the Spatial Domain of the HEDR Dose Code, BN-SA-3678 HEDR, Battelle Pacific Northwest Laboratories, Richland, Washington
- Napier, B.A., and J.C. Simpson. 1992. Determination of the Spatial Resolution Required for the HEDR Dose Code, BN-SA-3677 HEDR, Battelle Pacific Northwest Laboratories, Richland, Washington
- Napier, B.A., and J.C. Simpson. 1992. Determination of the Temporal Resolution Required for the HEDR Dose Code, BN-SA-3682 HEDR, Battelle Pacific Northwest Laboratories, Richland, Washington
- Napier, B.A., 1992. Software Requirements Specification for the Hanford Environmental Dose Reconstruction Project Air Pathway Environmental Accumulation and Dose Codes, BN-SA-3676 HEDR, Battelle Pacific Northwest Laboratories, Richland, Washington
- Leigh, C.D., B.M. Thompson, J.E. Campbell, D.E. Longsine, R.A. Kennedy, and B.A. Napier. 1992. User's Guide for GENII-S: A Code for Statistical and Deterministic Simulations of Radiation Doses to Humans from Radionuclides in the Environment. SAND91-0561A, Sandia National Laboratories, Albuquerque, New Mexico
- Napier, B.A., R.A. Peloquin, D.L. Strenge, and J.V. Ramsdell. GENII-The Hanford Environmental Dosimetry Software System. PNL-SA-16664 A, presented at the Seattle, WA, product release workshop for GENII-S, October 28-29, 1992.
- D. B. Shipler, B. A. Napier, and T. A. Ikenberry. 1992. "Environmental Accumulation of Radionuclides Released to the Atmosphere." PNL-SA-20919 A HEDR, Pacific Northwest Laboratory, Richland, Washington. Proceedings of the 13th Annual Meeting of the Society of Environmental Toxicology and Chemistry (SEATAC), November 8-12, 1992, Cincinnati, Ohio.

Shipler, D.B., B.A. Napier, and T.A. Ikenberry. 1992. Environmental Accumulation of Radionuclides Released to the Atmosphere. BN-SA-3635 HEDR. Battelle Pacific Northwest Laboratories, Richland, Washington

Walters, W.H., R.L. Dirkes, and B.A. Napier. 1992. Literature and Data Review for the Surface Water Pathway: Columbia River and Adjacent Coastal Areas. PNL-8083 HEDR. Pacific Northwest Laboratory, Richland, Washington

Marsh, T. L., D. M. Anderson, W. T. Farris, T. A. Ikenberry, B. A. Napier, and G. L. Wilfert. 1992. Commercial Production and Distribution of Fresh Fruits and Vegetables: A Scoping Study on the Importance of Produce Pathways to Dose. PNWD-2022 HEDR. Battelle, Pacific Northwest Laboratories, Richland, Washington.

Snyder, S. F., W. T. Farris, B. A. Napier, T. A. Ikenberry, and R. O. Gilbert. 1992. Parameters Used in the Environmental Pathways (DESCARTES) and Radiological Dose (CIDER) Modules of the Hanford Environmental Dose Reconstruction Integrated Codes (HEDRIC) for the Air Pathway. PNWD-2023 HEDR. Battelle, Pacific Northwest Laboratories, Richland, Washington.

Wood, D.E., T.E. Buhl, J.R. Cook, R.U. Curl, M.R. Dolenc, D.C. Kocher, B.A. Napier, K.W. Owens, E.P. Regnier, G.W. Roles, R.L. Seitz, D.J. Thorne, and M.I. Wood. Performance Assessment Task Team Draft Progress Report. DOE/LLW-157. Idaho National Engineering Laboratory, Idaho Falls, Idaho

Seitz, R.R., J.R. Cook, M.I. Wood, P.D. Rittmann, B.A. Napier, and D.W. Wood. 1992. Comparison of Computer Codes and Inputs Used at DOE Sites to Model Intrusion Scenarios. PNL-SA-20502, Pacific Northwest Laboratory. Presented at Waste Management '92, Tucson, Arizona, March 1-5, 1992

Shipler, D. B., B. A. Napier, and T. A. Ikenberry. 1992. "Overview of the Hanford Environmental Dose Reconstruction Project." PNL-SA-20021 HEDR. Pacific Northwest Laboratory, Richland, Washington. Proceedings of the 1992 International High-Level Radioactive Waste Management Conference, April 12-16, 1992, Las Vegas, Nevada.

Shindle, S.F., T.A. Ikenberry, and B.A. Napier. 1992. Parameters Used in the Environmental Pathways and Radiological Dose Modules of the Phase I Air Pathway Code. PNL-8093 HEDR. Pacific Northwest Laboratory, Richland, Washington

Napier, B.A. 1992. Status of Technical Work - Hanford Environmental Dose Reconstruction Project - July 17, 1992, BN-SA-3564 S HEDR. Pacific Northwest Laboratory, Richland, Washington

Napier, B.A., and A.J. Brothers. 1992. Recommendations to the Technical Steering Panel Regarding Approach for Estimating Individual Radiation Doses Resulting from Releases of Radionuclides to the Columbia River, Volume 1: Recommendations. PNWD-1977 HEDR Vol. 1, Battelle Pacific Northwest Laboratories, Richland, Washington

Napier, B.A., and A.J. Brothers. 1992. Recommendations to the Technical Steering Panel Regarding Approach for Estimating Individual Radiation Doses Resulting from Releases of Radionuclides to the Columbia River, Volume 2: Supporting Information. PNWD-1977 HEDR Vol. 2, Battelle Pacific Northwest Laboratories, Richland, Washington

Shipler, D.B., and B.A. Napier. 1992. HEDR Modeling Approach, PNWD-1983 HEDR. Battelle Pacific Northwest Laboratories, Richland, Washington

Napier, B.A. 1992. Environmental Modeling: Necessities and Caveats, PNL-SA-XXXXXX HEDR. Pacific Northwest Laboratory, Richland, Washington

T.A. Ikenberry, R.A. Burnett, B.A. Napier, N.A. Reitz, and D.B. Shieler. 1992. Integrated Codes for Estimating Environmental Accumulation and Individual Dose from Past Hanford Atmospheric Releases, PNL-7993 HEDR, Pacific Northwest Laboratory, Richland, Washington

Napier, B.A., J. C. Simpson, T. A. Ikenberry, R. A. Burnett, and T. B. Miley. 1991. Final Design Specification for the Environmental Pathways and Dose Model, PNL-7844 HEDR, Pacific Northwest Laboratory, Richland, Washington

Napier, B.A., C. M. Heeb, J. V. Ramsdell, and J. C. Simpson. 1991. Statistical and Uncertainty Issues of the Hanford Environmental Dose Reconstruction Project, PNL-SA-20295 S HEDR, Pacific Northwest Laboratory, Richland, Washington

Templeton, W. L., and B. A. Napier. 1991. Radiological Dose Assessment of the Chernobyl Aquatic Ecosystems, PNL-SA-20042 A, Pacific Northwest Laboratory, Richland, Washington.

Shieler, D. B., B. A. Napier, and J. G. Stephan. 1991. Application of a Geographic Information System to the HEDR Project, PNL-SA-19487 A, Pacific Northwest Laboratory, Richland, Washington.

Shieler, D. B., B. A. Napier, and T. A. Ikenberry. 1991. Overview of the Hanford Environmental Dose Reconstruction Project, PNL-SA-19078 A HEDR, Pacific Northwest Laboratory, Richland, Washington.

Napier, B. A., and W. E. Kennedy. 1991. Exposure Scenarios for Radiation Dose Calculations, PNL-SA-20004 S, Pacific Northwest Laboratory, Richland, Washington.

Ikenberry, T. A., and B. A. Napier. 1991. "Initial Findings of the Hanford Environmental Dose Reconstruction Project", PNL-SA-19251 HEDR S, Transactions of the American Nuclear Society 63:36-39.

Napier, B. A. 1991. "Integration of Models for the Hanford Environmental Dose Reconstruction Project," PNL-SA-19252 S, Transactions of the American Nuclear Society 63:36.

Stephan, J. G., and B. A. Napier. 1991. Application of a Geographic Information System to the Hanford Environmental Dose Reconstruction Project, PNL-SA-18958 S HEDR, Pacific Northwest Laboratory, Richland, Washington.

Ikenberry, T. A., C. L. Bruneau, and B. A. Napier. 1991. Phase I Dose Estimates for the Kalispel Tribe, PNL-SA-19098 A HEDR, Pacific Northwest Laboratory, Richland, Washington.

Ikenberry, T. A., C. L. Bruneau, and B. A. Napier. 1991. Process for Estimating Doses to the Coeur d'Alene Tribe, PNL-SA-19204 S HEDR, Pacific Northwest Laboratory, Richland, Washington.

Napier, B. A., J. V. Ramsdell, C. M. Heeb, and A. H. McMakin. 1991. Status of Technical Work - Hanford Environmental Dose Reconstruction Project, PNL-SA-19356 HEDR, Pacific Northwest Laboratory, Richland, Washington.

Ikenberry, T.A., and B. A. Napier. 1991. Dose Model and Parameter Restructuring, PNL-SA-18957 S, Pacific Northwest Laboratory, Richland, Washington.

Napier, B. A. 1991. Project Model Analysis and Restructuring, PNL-SA-18955 S, Pacific Northwest Laboratory, Richland, Washington.

Soldat, J. K., W. E. Davis, B. A. Napier, and R. A. Peloquin. 1990. Long-Term Collective Doses from the Chernobyl Reactor Accident Calculated from an Atmospheric Dispersion and Deposition Model, PNL-SA-17726 A, Pacific Northwest Laboratory, Richland, Washington.

Napier, B. A., 1990. Selection of Dominant Radionuclides for Phase I of the Hanford Environmental Dose Reconstruction Project, PNL-7231 HEDR, Pacific Northwest Laboratory, Richland, Washington.

Olsen, A. R., W. E. Davis, B. T. Didier, J. K. Soldat, B. A. Napier, and R. A. Peloquin. 1989. MLAM Assessment of Air Concentration, Deposition, and Dose for the Chernobyl Reactor Accident, PNL-7191, Pacific Northwest Laboratory, Richland, Washington.

Napier, B. A., 1990. Detailed Example Calculations for HEDR Phase I, PNL-SA 17913 S HEDR, Pacific Northwest Laboratory, Richland, Washington.

Napier, B. A., 1990. Computational Model Design Specification for Phase I of the Hanford Environmental Dose Reconstruction Project, PNL-7274 HEDR, Pacific Northwest Laboratory, Richland, Washington.

Technical Steering Panel. 1990. Initial Hanford Radiation Dose Estimates, (Pamphlet).

PNL. 1990. Draft Summary Report - Phase I of the Hanford Environmental Dose Reconstruction Project, PNL-7410 HEDR, Pacific Northwest Laboratory, Richland, Washington.

PNL. 1990. Draft Air Pathway Report - Phase I of the Hanford Environmental Dose Reconstruction Project, PNL-7412 HEDR, Pacific Northwest Laboratory, Richland, Washington.

PNL. 1990. Draft Columbia River Pathway Report - Phase I of the Hanford Environmental Dose Reconstruction Project, PNL-7411 HEDR, Pacific Northwest Laboratory, Richland, Washington.

Haerer, H. A., M.D. Freshley, R.O. Gilbert, L.G. Morgan, B.A. Napier, R.E. Rhoads, and R.K. Woodruff. 1990. "The Hanford Environmental Dose Reconstruction Project: Overview", PNL-SA-18451 S HEDR, In Environmental Monitoring, Restoration and Assessment: What Have We Learned?, Proceedings, 28th Hanford Symposium on Health and the Environment, Pacific Northwest Laboratory, Richland, Washington.

Napier, B.A., R.O. Gilbert, J.C. Simpson, J.V. Ramsdell, M.E. Thiede, and W.H. Walters. 1990. "The Hanford Environmental Dose Reconstruction Project: Technical Approach", PNL-SA-18451 S HEDR, In Environmental Monitoring, Restoration and Assessment: What Have We Learned?, pp. 191-199. Proceedings, 28th Hanford Symposium on Health and the Environment, Pacific Northwest Laboratory, Richland, Washington.

Napier, B. A. 1989. Preliminary Calculated and Measured I-131 Vegetation Concentrations for Phase I, PNL-SA-17674 S HEDR, Pacific Northwest Laboratory, Richland, Washington.

Napier, B. A. 1989. Overview of Project Model - Air Pathway, PNL-SA-17673 S HEDR, Pacific Northwest Laboratory, Richland, Washington.

Napier, B. A. 1989. Overview of Project Model - Surface Water Pathway, PNL-SA-17672 S HEDR, Pacific Northwest Laboratory, Richland, Washington.

Napier, B. A., and R. A. Peloquin. 1989. GENII - The Hanford Environmental Dosimetry Software System, PNL-SA-16664, presented at the Health Physics Society Summer School, the Western Regional Symposium on Computers in Health Physics, and several classes.

Napier, B. A. 1989. Computers in Health Physics - The Future, Columbia Chapter, Health Physics Society.

Ikenberry, T. A., and B. A. Napier. 1989. Preliminary Evaluation of Thyroid Bioassay Data from Hanford Workers, 1944-1946, PNL-SA-17670 S HEDR, Pacific Northwest Laboratory, Richland, Washington.

Napier, B. A., and D. M. Beck. 1989. Defining Demographic Categories in Phase 1, PNL-SA-17035 HEDR, Pacific Northwest Laboratory, Richland, Washington.

Napier, B. A., and T. M. Poston. 1989. Surface Water Exposure Pathways, PNL-SA-17502 HEDR, Pacific Northwest Laboratory, Richland, Washington.

Napier, B. A., et al. 1989. The Hanford Environmental Dose Reconstruction Project : Technical Approach, PNL-SA-16874 HEDR, Pacific Northwest Laboratory, Richland, Washington.

Napier, B. A., and W. E. Kennedy. 1989. Estimated Doses from Decommissioning Activities at Commercial Nuclear Power Stations, PNL-SA-16697, Pacific Northwest Laboratory, Richland, Washington.

Napier, B. A., R. A. Peloquin, D. L. Strenge, and J. V. Ramsdell. 1988. HANFORD ENVIRONMENTAL DOSIMETRY UPGRADE PROJECT. GENII - The Hanford Environmental Radiation Dosimetry Software System. Volume 1: Conceptual Representation, Volume 2: Users' Manual, Volume 3: Code Maintenance Manual. PNL-6534, Vols. 1-3, Pacific Northwest Laboratory, Richland, Washington.

Napier, B. A., and W. E. Kennedy, Jr. 1988. "Radiation Dose Calculations for Inadvertent Intruders." PNL-SA-16440, Pacific Northwest Laboratory, Richland, Washington.

Napier, B. A., and C. T. Kincaid. 1988. "Ground-Water Flow and Contaminant Transport Modeling." PNL-SA-16441, Pacific Northwest Laboratory, Richland, Washington.

Martin, J. B., W. N. Herrington, M. A. Parkhurst, B. A. Napier, and S. M. Neuder. 1988. "Evaluation of Exposure Pathways to Man from Disposal of Radioactive Materials into Sanitary Sewer Systems." PNL-SA-15548, Pacific Northwest Laboratory, Richland, Washington.

Nelson, I. C. and B. A. Napier. 1988. "Impacts of Disposal of Existing Hanford Tank Wastes." PNL-SA-15673, Pacific Northwest Laboratory, Richland, Washington.

Napier, B. A., G. F. Piepel, and W. E. Kennedy. 1988. A Manual for Applying The Allowable Residual Contamination Level Method for Decommissioning Facilities in the 100 Areas of the Hanford Site. PNL-6348, Pacific Northwest Laboratory, Richland, Washington.

Bergeron, M. P., B. A. Napier, A. E. Reisenauer, and D. R. Sherwood. 1987. "Environmental Pathways Analysis of the U.S. Ecology Low-Level Waste Disposal Facility, Richland, Washington." Prepared for U.S. Ecology, Inc., by Battelle, Pacific Northwest Laboratories, Richland, Washington.

Jaquish, R. E., and B. A. Napier. 1987. "A Comparison of Environmental Radionuclide Concentrations Calculated by a Mathematical Model with Measured Concentrations." PNL-SA-14720. In Proceedings of ANS Topical Conference on Population Exposure from the Nuclear Fuel Cycle. Oak Ridge, Tennessee.

Napier, B. A., and W. E. Kennedy, Jr. 1987. "Population Dose Considerations for Decommissioning." PNL-SA-15133. In Proceedings of ANS Topical Conference on Population Exposure from the Nuclear Fuel Cycle. Oak Ridge, Tennessee.

Kennedy, W. E., Jr., R. A. Peloquin, B. A. Napier, and S. M. Neuder. 1986. Intruder Dose Pathway Analysis for the Onsite Disposal of Radioactive Wastes: the ONSITE/MAXII Computer Program. NUREG/CR-3620, Supplement 2, prepared for U.S. Nuclear Regulatory Commission by Pacific Northwest Laboratory, Richland, Washington.

- Mishima, J., S. L. Sutter, K. A. Hawley, C. E. Jenkins, and B. A. Napier. 1986. Potential Radiological Impacts of Upper-Bound Operational Accidents During Proposed Disposal Alternatives for Hanford Defense Waste. PNL-5356, Pacific Northwest Laboratory, Richland, Washington.
- Napier, B. A., R. A. Peloquin, and D. L. Strenge. 1986. DITTY - A Computer Program for Calculating Population Dose Integrated Over Ten-Thousand Years. PNL-4456, Pacific Northwest Laboratory, Richland, Washington.
- Sherwood, D. R., B. A. Napier, M. P. Bergeron, and A. E. Reisenauer. 1986. "Evaluation of Source-Term Information from the U.S. Ecology Low-Level Waste Burial Facility, Richland, Washington." Prepared for U. S. Ecology, Inc., by Battelle, Pacific Northwest Laboratories, Richland, Washington.
- Schreckhise, R.G., and B.A. Napier. 1986. Data Requirements for Estimation of Risk to Man in Dose Assessment Models, PNL-SA- A, Pacific Northwest Laboratory, Richland, Washington.
- Aaberg, R. L., and B. A. Napier. 1985. Hanford Dose Overview Program: Comparison of AIRDOS-EPA and Hanford Site Dose Codes. PNL-5633, Pacific Northwest Laboratory, Richland, Washington.
- Gilbert, T. L., K. F. Eckerman, W. R. Hansen, J. W. Healy, W. E. Kennedy, Jr., B. A. Napier, and J. K. Soldat. 1985. A Manual for Implementing Residual Radioactivity Guidelines. U.S. Department of Energy, Washington, D.C.
- Hawley, K. A., and B. A. Napier. 1985. "A Ranking System for Mixed Radioactive and Hazardous Wastes." In Proceedings of the Fifth DOE Environmental Protection Information Meeting, CONF-841187, U.S. Department of Energy, Washington D.C.
- Hawley, K. A., and B. A. Napier. 1985. Comment Draft: A Ranking System for Sites With Mixed Radioactive and Hazardous Wastes. Pacific Northwest Laboratory, Richland, Washington.
- Kennedy, W. E., Jr., and B. A. Napier. 1985. "Allowable Residual Contamination Levels for Decommissioning, Part 2: A Summary of Example Results." In Proceedings of the Fifth DOE Environmental Protection Information Meeting, CONF-841187, U.S. Department of Energy, Washington D.C.
- Kennedy, W. E., Jr., and B. A. Napier. 1985. "Allowable Residual Contamination Levels for Decommissioning: Revisions to the Method." In Proceedings of the Nineteenth Topical Symposium of the Health Physics Society, Knoxville, Tennessee.
- Kennedy, W. E., Jr., and B. A. Napier. 1985. "Intruder Dose Pathway Analysis Code for Onsite Land Disposal." In Proceedings of the Seventh DOE Low-Level Waste Management Participants Meeting, U.S. Department of Energy, Washington, D.C.
- Kennedy, W. E., Jr., R. A. Peloquin, and B. A. Napier. 1985. "Intruder Dose Pathway Analysis for the Onsite Disposal of Radioactive Wastes." In Proceedings of the Eighteenth Topical Symposium of the Health Physics Society, Colorado Springs, Colorado.
- Kennedy, W. E., Jr., R. A. Peloquin, B. A. Napier, and S. M. Neuder. 1985. "Onsite Disposal of Commercial Radioactive Wastes: The ONSITE/MAXII Computer Program." In Proceedings of the 1985 Winter Meeting of the American Nuclear Society, San Francisco, California.
- Kennedy, W. E., Jr., R. A. Peloquin, B. A. Napier, and S. M. Neuder. 1985. Intruder Dose Pathway Analysis for the Onsite Disposal of Radioactive Wastes: the ONSITE/MAXII Computer Program.

NUREG/CR-3620, Supplement I, prepared for U.S. Nuclear Regulatory Commission by Pacific Northwest Laboratory, Richland, Washington.

McKenzie, D. H., et al. 1985. Relevance of Biotic Pathways to the Long-term Regulation of Nuclear waste Disposal: Estimation of Radiation Dose to Man Resulting from Biotic Transport: The BIOPORT/MAXII Software Package. NUREG/CR-2675, Vol. 5, prepared for U.S. Nuclear Regulatory Commission by Pacific Northwest Laboratory, Richland, Washington.

Napier, B. A., and W. E. Kennedy, Jr. 1985. "Allowable Residual Contamination Levels for Decommissioning, Part I: A Description of the Method." In Proceedings of the Fifth DOE Environmental Protection Information Meeting, CONF-841187, U.S. Department of Energy, Washington D.C.

Radiation Advisory Committee. 1985. Report on the March 13, 1985, Draft Background Information Document for Proposed Low-Level Radioactive Waste Standards, EPA Science Advisory Board, Washington, D.C.

Napier, B. A., R. A. Peloquin, and W. E. Kennedy, Jr. 1984. Intruder Dose Pathway Analysis for the Onsite Disposal of Radioactive Wastes: The ONSITE/MAXII Computer Program. NUREG/CR-3620, prepared for U.S. Nuclear Regulatory Commission by Pacific Northwest Laboratory, Richland, Washington.

McCormack, W.D., J.V. Ramsdell, and B.A. Napier. 1984. Hanford Dose Overview Program: Standardized Methods and Data for Hanford Environmental Dose Calculations. PNL-3777 Rev. 1, Pacific Northwest Laboratory, Richland, Washington.

FitzPatrick, V.F., D.R. Brown, J.L. Buelt, S.E. King, B.A. Napier, K.H. Oma, D.J. Silveira, and C.L. Timmerman. 1984. "In-Situ Vitrification of Transuranic Wastes: Systems Evaluation and Application Assessment." In R.G. Post, ed., Waste Management '84, Proceedings of the Symposium on Waste Management, Vol. I University of Arizona Press, Tucson, Arizona.

Kennedy, W. E., Jr., and B. A. Napier. 1983. Allowable Residual Contamination Levels for Decommissioning the 115-F and 117-F Facilities at the Hanford Site. PNL-4704, Pacific Northwest Laboratory, Richland, Washington.

Kennedy, W. E., Jr., and B. A. Napier. 1983. Allowable Residual Contamination Levels for Decommissioning Facilities in the 100 Areas of the Hanford Site. PNL-4722, Pacific Northwest Laboratory, Richland, Washington.

Kennedy, W. E., Jr., B. A. Napier, and J. K. Soldat. 1983. Allowable Residual Contamination Levels in Soil for Decommissioning the Shippingport Atomic Power Station Site. RL/SFM-83-9, Pacific Northwest Laboratory, Richland, Washington.

McCormack, W. D., J. M. V. Carlile, R. A. Peloquin, and B. A. Napier. 1983. A Comparison of Environmental Radiation Doses Estimated for Hanford Operations, 1977 Through 1982. PNL-4713, Pacific Northwest Laboratory, Richland, Washington.

Murthy, K. S., L. A. Stout, B. A. Napier, A. E. Reisenauer, and D. K. Landstrom. 1983. Assessment of Single-Shell Tank Residual Liquid Issues at Hanford Site, Washington. PNL-4688, Pacific Northwest Laboratory, Richland, Washington.

Oma, K. H., et al. 1983. In Situ Vitrification of Transuranic Wastes: Systems Evaluation and Applications Assessment. PNL-4800, Pacific Northwest Laboratory, Richland, Washington.

- Petrie, G. M., S. C. Sneider, B. A. Napier, and J. C. Barnard. 1983. Simplified Codes for Performance Evaluation (SCOPE) of Radionuclide Transport: Version 1.0. PNL-4737, Pacific Northwest Laboratory, Richland, Washington.
- Strand, J. A., E. A. Crecelius, B. A. Napier, and Y. Onishi. 1983. Identification of Critical Model Parameters to Assess the Fate of Metal Sulfides in Marine Food Chains of Alice Arm, British Columbia. Battelle, Pacific Northwest Laboratories, Richland, Washington.
- Harwell, M. A., et al. 1982. Reference Site Initial Assessment for a Salt-Dome Repository. PNL-2955, Vol. 1 and 2, Pacific Northwest Laboratory, Richland, Washington.
- Kennedy, W. E., Jr., R. L. Aaberg, B. A. Napier, and J. K. Soldat. 1982. Transuranic Advanced Disposal Systems: Preliminary ²³⁹Pu Waste Disposal Criteria for Hanford. PNL-4254, Pacific Northwest Laboratory, Richland, Washington.
- Napier, B. A. 1982. A Method for Determining "Allowable Residual Contamination Levels" of Radionuclide Mixtures in Soil. PNL-3852, Pacific Northwest Laboratory, Richland, Washington.
- Napier, B. A. 1981. Standardized Input for Hanford Environmental Impact Statements - Part 1. PNL-3509 PT1, Pacific Northwest Laboratory, Richland, Washington.
- Napier, B. A., R. L. Roswell, W. E. Kennedy, Jr., and D. L. Strenge. 1980. ARRRG and FOOD - Computer Programs for Calculating Radiation Dose to Man from Radionuclides in the Environment. PNL-3180, Pacific Northwest Laboratory, Richland, Washington.
- Napier, B. A., W. E. Kennedy, Jr., and J. K. Soldat. 1980. PABLM - A Computer Program for Calculating Accumulated Radiation Dose from Radionuclides in the Environment. PNL-3209, Pacific Northwest Laboratory, Richland, Washington.
- Silviera, D. J., M. A. Harwell, B. A. Napier, J. T. Zellmer, and G. L. Benson. 1980. A Short Description of the AEGIS Approach. PNL-3398, Pacific Northwest Laboratory, Richland, Washington.
- Strand, J. A., et al. 1980. Critical Biological Pathways for Transfer of Radioactive and Heavy Metal Contaminants to Biota and Man in Relation to Development of the Uranium Industry in British Columbia. Battelle, Pacific Northwest Laboratories, Richland, Washington.
- Strenge, D. L., B. A. Napier, R. A. Peloquin, and M. G. Zimmerman. 1980. ALLDOS - A Computer Program for Calculation of Radiation Doses from Airborne and Waterborne Releases. PNL-3524, Pacific Northwest Laboratory, Richland, Washington.
- Kennedy, W. E., Jr., E. C. Watson, G. R. Hoenes, and B. A. Napier. 1979. "A Method for Determining Acceptable Residual Radioactive Contamination Levels." Presented at the 24th Annual Meeting of the Health Physics Society, Philadelphia, Pennsylvania.
- Napier, B. A., G. R. Hoenes, W. E. Kennedy, Jr., and E. C. Watson. 1979. "The Maximum Annual Dose Resulting from Residual Radioactive Contamination." Presented at the 24th Annual Meeting of the Health Physics Society, Philadelphia, Pennsylvania.
- Murphy, E. S., L. L. Clark, B. A. Napier, and D. L. Strenge. 1978. "Transportation of Post-Fission Radioactive Wastes from the Commercial LWR Fuel Cycle." In Proceedings of the Fifth International Symposium on Packaging and Transportation of Radioactive Materials. Las Vegas, Nevada.
- Timmerman, C. L., G. P. Seiby, and B. A. Napier. 1978. Selected Isotopic Functions: A Description and Demonstration of Their Uses. PNL-2761, ISPO-37, Pacific Northwest Laboratory, Richland, Washington.

*Curriculum Vitae***ROY E. SHORE**

Birthdate: October 30, 1940; U.S. Citizen

Office Address: New York University Medical School
 Department of Environmental Medicine
 Division of Epidemiology and Biostatistics
 341 East 25th Street, Rm. 204
 New York, New York 10010-2598
 Tel. (212) 263-6498
 Fax (212) 263-8570
 E-mail: Shorer01@gcrc.med.nyu.edu

Primary Discipline: Environmental Epidemiology
 Biostatistics
 Cancer Epidemiology

<u>Education:</u>	Institute and Location	Degree	Date
	Houghton College	B.A.	1962
	Syracuse University	M.A.	1966
	Syracuse University	Ph.D.	1967
	Columbia University	Dr.P.H.	1982

Awards and Honors

National Merit Scholarship - Finalist, 1958
 NSF Graduate Fellowship, 1963-65
 USPHS Post-doctoral Research Fellowship, 1967-69
 MERIT Research Award from NIH, 1986-94

Professional Experience

1965-1966	Research Assistant, Department of Pediatrics, Upstate Medical Center, Syracuse, New York.
1966-1967	Research Associate, Youth Development Center, Syracuse, New York.
1967-1969	USPHS Post-doctoral Research Fellowship, Educational Testing Service, Princeton, N.J.
1969-1976	Associate Research Scientist or Research Scientist, Institute of Environmental Medicine, New York University Medical School.
1976-1987	Assistant/Associate Professor, Department of Environmental Medicine, New York University Medical School.

1987-Present	Professor, Department of Environmental Medicine, New York University Medical School.
1991-Present	Head, Environmental Epidemiology Unit, Dept. of Environmental Medicine
1994-Present	Head, Collaborative Biostatistics Resource, Minority Oral Health Research Center, New York University College of Dentistry
1996-Present	Director, Biostatistics Shared Resource, Kaplan Cancer Center, New York University Medical Center
1996-Present	Director, Division of Epidemiology and Biostatistics, Dept. of Environmental Medicine, New York University Medical School

Governmental Committee and Consulting Assignments

Major Appointments

- NAS/NRC, Committee on Federal Research on Biological and Health Effects of Ionizing Radiation. (1980-1981) (National Academy of Sciences-National Research Council)
- DOE Health and Environmental Research Advisory Committee, Member and Chairman of Epidemiology Subcommittee (1983-86) (U.S. Department of Energy)
- NCI, Board of Scientific Counselors, Division of Cancer Etiology. (1984-1991) (National Cancer Institute, National Institutes of Health)
- NCI/NIOSH, Chairman, Advisory Committee to the NCI Acrylonitrile Epidemiology Study. (1986-Present) (National Cancer Institute and National Institute of Occupational Safety and Health, National Institutes of Health)
- NCI, Working Group on Studies of Thyroid Disorders in the Former Soviet Union Following Radioactive Iodine Exposure from Chernobyl (1990-Present) (National Cancer Institute)
- NAS/NRC, Committee on An Assessment of CDC Radiation Studies (1991-Present) (National Academy of Sciences-National Research Council)
- ICRP, Standing Scientific Committee No. 1: Radiation Health Effects. (1993-Present) (International Commission on Radiological Protection)
- NCRP, Standing Scientific Committee 1 on Radiobiology, Epidemiology, Risk and Basic Radiation Protection (1994-Present) (National Council on Radiation Protection and Measurements)
- NCRP, Board of Directors (1995-Present) (National Council on Radiation Protection and Measurements)
- NTH Study Section (Cancer Centers & Research Programs Review Committee, Subcommittee E on Cancer Prevention and Control) (1994-96) (National Institutes of Health)

Other Appointments

- NAS-NRC, Consultant to the Committee on the Biological Effects of Ionizing Radiation (National Academy of Sciences-National Research Council) (1977-1980)
- NCRP Scientific Committee No. 56 on Mammography (1977-1980) (National Council on Radiation Protection and Measurement)
- Review Panel, Board of Scientific Counselors (1980-1981) (National Toxicology Program, National Institute of Environmental Health Sciences)

- NCRP Scientific Committee No. 72 on Radiation Protection in Mammography (1982-85) (National Council on Radiation Protection and Measurements)
- Advisory Committee to the Health Study of Plutonium Workers in the Nuclear Industry (1976-Present) (U.S. Department of Energy, Los Alamos)
- Chairman, Advisory Committee to the Hanford Health and Mortality Study (1980-Present) (U.S. Department of Energy, Hanford)
- Advisory Committee to Naval Shipyard Radiation Workers Study, Johns Hopkins University (1980-1989) (U.S. Department of Energy)
- NCRP Scientific Committee No. 45 on Exposure of the U.S. Population from Occupational Radiation. (1983-1989) (National Council on Radiation Protection and Measurements)
- NIH Committee on Thyroid/Iodine-131 Assessments, Chairman of Human Risk Subcommittee (1983-92) (National Cancer Institute, National Institutes of Health)
- ORAU Biomedical Advisory Committee, Oak Ridge Associated Universities (1985-Present) (U.S. Department of Energy, Oak Ridge)
- Chairman, Advisory Committee to Oak Ridge Radiation Epidemiology Studies, Oak Ridge Associated Universities (1985-1994) (U.S. Department of Energy, Oak Ridge)
- NCI Review Committee to the Utah Radiation Fallout Studies (1985-1992) (National Cancer Institute, National Institutes of Health)
- Thyroid Morbidity Subcommittee (1987) (Hanford Historical Documents Review Committee, State of Washington)
- Chairman, Site Visit Review Committee to the NCI Radiation Epidemiology Branch (1988) (National Cancer Institute, National Institutes of Health)
- ICRP Task Group on the Biological Basis for Dose Limitation in the Skin (1988-1991) (International Commission on Radiological Protection)
- NAS-NRC Panel on the Health Effects of Extremely Low Frequency Electromagnetic Fields. (1989) (National Academy of Sciences-National Research Council)
- NCRP, Consultant to Scientific Committee 80-1 on Hot Particles on the Skin (1988-1989) (National Council on Radiation Protection and Measurements)
- NCRP, Advisor to Scientific Committee 80 on Radiation Biology of the Skin (1989-1991) (National Council on Radiation Protection and Measurements)
- Consultant on Occupational Health Studies (1989-91) (Merck Co.)
- NCRP, Scientific Committee 83 on Research Needs in Radiation Research (1990-1993) (National Council on Radiation Protection and Measurements)
- NCRP, Scientific Committee 1-3 on the Concept and Applications of Collective Radiation Dose (1990-94) (National Council on Radiation Protection and Measurements)
- NCRP, Scientific Committee 86 on Internal and External Hot Particle Exposures (1991-Present) (National Council on Radiation Protection and Measurements)
- NCI, Advisor, Working Group for the Joint Analysis of Studies of Radon-exposed Underground Miners (1991-1993) (National Cancer Institute)
- Consultant on Occupational and Radiation Epidemiology (1991-Present) (Monsanto Corp.)

- Oversight Committee for an Occupational Mortality Study of PCB-exposed Workers (1992-Present) (Institute for Evaluating Health Risks)
- Review Panel on the Health Effects of Electromagnetic Fields (1992-93) (Health Effects Institute)
- Expert Panel on Dioxin Risks (1992-94) (Environ Corp.)
- Chairman, Scientific Board for Benzene Epidemiology Study (1992-95) (Exxon Biomedical Sciences Institute)
- NIOSH. Review Panel for Projected Occupational Radiation Study at Idaho Falls National Laboratory (INEL) (1993-94) (National Institute of Occupational Safety and Health)
- NIEHS Workshop on Priorities in Health Effects Research - Ionizing Radiation (Invited Participant) (1994) (National Institute of Environmental Health Sciences)
- Advisory Committee, Staten Island Environmental Health Study (1994-96) (New York City Department of Health)
- National Radiation Treatment Oncology Group, Epidemiology Committee (1994-95)
- IAEA Advisory Workshop on Thyroid Effects from Chernobyl (Invited Participant) (1994) (International Atomic Energy Agency)
- Advisory Committee, American Health Foundation Research Program (1995)
- Review Panel for Study of Butadiene-Exposed Workers (1995) (Monsanto Corp.)
- Dioxin Science Workgroup (1996-1997) (Chlorine Chemistry Council, CMA)
- Advisory Committee for Study of Arsenic in Drinking Water (1994-95) (International Lead and Zinc Research Organization)
- Advisory Board, Long Island Breast Cancer Studies (1994-Present) (Columbia University)
- NCRP. Scientific Committee 1-6 on Radiation Low-dose Linearity (1995-Present) (National Council on Radiation Protection and Measurements)
- NCI. Binational Advisory Group for Thyroid Studies in Belarus and Ukraine. (1996-Present) (National Cancer Institute)
- NCRP. Scientific Committee 1-8 on Thyroid Risk from Ionizing Radiation (1997-Present) (National Council on Radiation Protection and Measurements)
- NCI. Chair, panel to review NAS/NRC proposal for "Epidemiological Studies of Cancer among Atomic Bomb Survivors" (1997) (National Cancer Institute)
- NCI. Study Section Site Visits for a number of research proposals (1991-Present) (National Cancer Institute)

Editorial Boards

Journal of the National Cancer Institute, Editorial Advisory Board (1988-Present)
 Cancer Epidemiology, Biomarkers and Prevention, Editorial Advisory Board (1991-Present)
 Regulatory Toxicology and Pharmacology, Editorial Board (1992-95)

Reviewer for Journals

Nature; New England Journal of Medicine; British Journal of Industrial Medicine; American Journal of Epidemiology; Journal of the National Cancer Institute; Cancer; Cancer Epidemiology,

Biomarkers and Prevention; Radiation Research; Regulatory Toxicology and Pharmacology; Epidemiologic Reviews; American Journal of Public Health; Cancer Causes and Control

Membership in Elected Groups

Fellow, American College of Epidemiology (1982-Present).
 National Council on Radiation Protection and Measurements (1983-Present).
 International Commission on Radiological Protection, Standing Committee I: Radiation Health Effects (1993-Present)

Membership in Professional Societies

Society for Epidemiologic Research
 American Society of Preventive Oncology
 Biometric Society
 American Statistical Association
 American Association for Cancer Research
 Radiation Research Society

Publications:

1. Halverson C, Shore R. Self-disclosure and interpersonal functioning. *J. Consult. Clin. Psychol.* 1969; 33:213-217.
2. Emmerich W, Goldman K, Shore R. Differentiation and development of social norms. *J. Pers. Soc. Psychol.* 1971; 18:323-353.
3. Albert R, Shore R, Sayers A, Strehlow C, Kneip T, Pasternack B, Friedhoff A, Covan F, Cimino J. Follow-up of children overexposed to lead. *Environ. Health Perspec.* 1974; 7:33-39.
4. Albert R, Pasternack B, Shore R, Lippmann M, Nelson N, Ferris B. Mortality patterns among workers exposed to chloromethyl ethers--A preliminary report. *Environ. Health Perspec.* 1975; 11:209-214.
5. Shore R. Review of book: "Biostatistics: A Foundation for Analysis in the Health Sciences" by W. Daniel. *J. Am. Stat. Assoc.* 1975; 70:490-491.
6. Harley N, Albert R, Shore R, Pasternack B. Follow-up study of patients treated by x-ray epilation for tinea capitis. Estimation of the dose to the thyroid and pituitary glands and other structures of the head and neck. *Phys. Med. Biol.* 1976; 21:631-642.
7. Shore R, Albert R, Pasternack B. Follow-up study of patients treated by x-ray epilation for tinea capitis. *Arch. Environ. Health.* 1976; 31:21-23.
8. Shore R, Pasternack B, Curnen M. Relating influenza epidemics to childhood leukemia tumor registries without a defined population base: A critique with suggestions for improved methods. *Am. J. Epidemiol.* 1976; 103:527-535.
9. Shore RE. A statistical note on "Differential misdiagnosis of blacks and whites by the MMPI". *J. Pers. Assess.* 1976; 40:21-23.
10. Albert R, Shore R. Fundamental epidemiological considerations. In: International Symposium on Areas of High Natural Radioactivity, Brazil Academy of Sciences, Rio de Janeiro. 1977; pp. 15-17.

11. Pasternack B, Shore R. Statistical methods for assessing risk following exposure to environmental carcinogens. In: *Environmental Health: Quantitative Methods*, Whittemore, A., Ed., Society for Industrial and Applied Mathematics, Phila. 1977; pp. 48-70.
12. Pasternack B, Shore R, Albert R. Occupational exposure to chloromethyl ethers: A retrospective cohort mortality study. *J. Occup. Med.* 1977; 19:741-746.
13. Shore R, Hempelmann L, Kowaluk E, Mansur P, Pasternack B, Albert R, Haughie G. Breast neoplasms in women treated with x-rays for acute postpartum mastitis. *J. Natl. Cancer Inst.* 1977; 59:813-822.
14. Albert R, Burns F, Shore R. Comparison of the incidence and time patterns of radiation-induced skin cancer in humans and rats. In: *Late Biological Effects of Ionizing Radiation*, International Atomic Energy Agency, Vienna. 1978; Vol. 2, pp. 499-505.
15. Omran S, Shore R, Markoff A, Friedhoff A, Albert A, Barr H, Dahlstrom W, Pasternack B. Follow-up study of patients treated by x-ray epilation for tinea capitis: Psychiatric and psychometric evaluation. *Am. J. Pub. Health.* 1978; 68:561-567.
16. Shore R. Dose-response relationship in radiogenic breast cancer: A reply. *J. Natl. Cancer Inst.* 1978; 60:728.
17. Albert RE, Pasternack B, Shore R, Nelson N. Identification of occupational settings with very high risks of lung cancer (Letter). *J. Natl. Cancer Inst.* 1979; 63:1289-1290.
18. Boice J, Land C, Shore R, Norman J, Tokunaga M. Risk of breast cancer following low-dose radiation exposure. *Radiol.* 1979; 131:589-597.
19. Pasternack B, Shore R. Lung cancer following exposure to chloromethyl ethers. In: *Proceedings of the International Conference on Critical Current Issues in Environmental Health Hazards*, Chwat, M., and Dror, K., Eds., Tel Aviv, Israel. 1979; pp. 76-85.
20. Shore R. Application of epidemiologic studies of radiation-induced breast cancer to mammographic screening guidelines. In: *Radiation Research (Proceedings of the 6th International Congress of Radiation Research)*, Okada, S., et al., Eds., Japan Association of Radiation Research, Tokyo. 1979; pp. 973-979.
21. Shore R, Pasternack B, Thiessen E, Sadow M, Forbes R, Albert R. A case-control study of hairdye use and breast cancer. *J. Natl. Cancer Inst.* 1979; 62:277-283.
22. Shore R, Pasternack B. Hair dye use and breast cancer: A reply. *J. Natl. Cancer Inst.* 1979; 62:1327-1328.
23. Land C, Boice J, Shore R, Norman J, Tokunaga M. Breast cancer risk from low-dose exposures to ionizing radiation: Results of parallel analysis of three exposed populations of women. *J. Natl. Cancer Inst.* 1980; 65:353-376.
24. Pasternack B, Shore R. Group sequential methods for cohort and case-control studies. *J. Chronic Dis.* 1980; 33:365-373.
25. Shore R, Pasternack B. Radiation risk of mammography; A reply. *Canad. Med. Assoc. J.* 1980; 123:97-98.
26. Shore R, Woodard E, Hempelmann L, Pasternack B. Synergism between radiation and other risk factors for breast cancer. *Prev. Med.* 1980; 9:815-822.
27. Shore R, Woodard E, Pasternack B, Hempelmann L. Radiation and host factors in human thyroid tumors following thymus irradiation. *Health Phys.* 1980; 38:451-465.
28. Hempelmann LH, Boice J, Bond V, Dodd G, Hodges P, Land C, Lester R, Rothenberg L, Shellabarger C, Shore R, Weber D, Yuhus J. Mammography. NCRP Report No. 66. National Council on Radiation Protection and Measurements, Bethesda, MD. 1980, 85 pp.
29. Pasternack B, Shore R. Sample sizes for group sequential cohort and case-control study designs. *Am. J. Epidemiol.* 1981; 113:182-191.

30. Pasternack BS, Shore R. Lung cancer following exposure to chloromethyl ethers. In: Proceedings of the International Conference on Critical Issues in Environmental Hazards", Chwat, M. and Dror, K., eds., Tel Aviv, 1981; pp. 76-85.
31. Green K, Pasternack B, Shore R. Effect of aircraft noise on reading ability of school-age children. *Arch. Environ. Health.* 1982; 37:24-31.
32. Green K, Pasternack B, Shore R. Effect of aircraft noise on hearing ability of school-age children. *Arch. Environ. Health.* 1982; 37:284-289.
33. Pasternack B, Shore R. Sample sizes for individually matched case-control studies: A group sequential approach. *Am. J. Epidemiol.* 1982; 115:778-784.
34. Pasternack B, Shore R. Group sequential methods in the design and analysis of epidemiological studies. Proceedings of the 10th International Biometric Conference (Guarujá, Brazil, August 1979), EMBRAPA-DID, Documentos, 22, 1982; pp. 469-472.
35. Pasternack B, Shore R. Analysis of dichotomous response data from toxicological experiments involving stable laboratory mouse populations. *Biometrics.* 1982; 38:1057-1067.
36. Harley N, Kolber A, Shore R, Albert R, Altman S, Pasternack B. The skin dose and response for the head and neck in patients irradiated with x-ray for tinea capitis: Implications for environmental radioactivity. In: *Epidemiology Applied to Health Physics. Proc 16th Meeting Health Physics Society, Health Physics Society, Albuquerque, NM.* 1983; pp. 125-142.
37. Hildreth N, Shore R, Hempelmann L. Risk of breast cancer among women receiving radiation treatment in infancy for thymic enlargement. *Lancet.* 1983; 2:273.
38. Jaeger R, Sussman R, Gearhart J, Bowers S, Shore R, Sellakumar A. Repeated pulmonary-function evaluation following bleomycin treatment. *J. Toxicol. Environ. Health.* 1983; 11:415-423.
39. Shore R. Thyroid cancer from occupational exposures to Iodine-131. In: *Epidemiology Applied to Health Physics, Proc 16th Meeting Health Physics Society, Health Physics Society, Albuquerque, NM.* 1983; pp. 116-124.
40. Shore R, Pasternack B, Bulbrook R, Moseson M, Kwa H, Wang D, Moore J, Strax P. Endocrine and environmental factors in breast cancer: the case for prospective studies. In: *Commentaries on Research in Breast Disease, Bulbrook, R., and Taylor, J., Eds., Alan Liss, New York.* 1983; Vol. 3, pp. 1-31.
41. Koenig K, Pasternack B, Shore R. Hair dye use and breast cancer (Letter). *J. Natl. Cancer Inst.* 1984; 72:1211.
42. Shore R. Radiation induced cancer: Risk assessment and prevention. *Cancer Detect. Prev.* 1984; 7:181-190.
43. Shore R, Albert R, Reed M, Harley N, Pasternack B. Skin cancer incidence among children irradiated for ringworm of the scalp. *Radiat. Res.* 1984; 100:192-204.
44. Shore R, Anderson R, Beebe G, Buffler P, Colton T, Cuddihy R, Miller R, Neel J, Wilson R. Review of the Office of Health and Environmental Research (OHER) Program in Epidemiology. Report to the U.S. Department of Energy. 1984; 30 pp.
45. Shore R, Woodard E, Hempelmann L. Radiation-induced thyroid cancer. In: *Radiation Carcinogenesis: Epidemiology and Biological Significance, Boice, J., and Fraumeni, J., Eds., Raven Press, New York.* 1984; pp. 131-138.
46. Hildreth N, Shore R, Hempelmann L, Rosenstein M. Risk of Extrathyroid tumors following radiation treatment in infancy for thymic enlargement. *Radiat. Res.* 1985; 102:378-391.
47. Moseson M, Shore R, Lazaro C. Highlights of methodological approaches: A case-control study of diet and breast cancer. In: *Vitamins and Cancer. Human Cancer Prevention by Vitamins and Micronutrients, Meyskens, F., and Prasad, K., Eds., Humana Press, Clifton, NJ.* 1985; pp. 351-362.

48. Shore R, Woodard E, Hildreth N, Dvoretzky P, Hempelmann L, Pasternack B. Thyroid tumors following thymus irradiation. *J. Natl. Cancer Inst.* 1985; 74:1177-1184.
49. Shore RE, Hildreth N, Hempelmann L, Pasternack B. Breast cancer in women with x-ray exposure: models of dose, time, and host susceptibility (abstract). In: *ASA Conference on Radiation and Health*, Frome, E., ed., American Statistical Assoc., Washington, DC. 1985; pp. 37-38.
50. Albert R, Shore R. Carcinogenic effects of radiation on the human skin. In: *Radiation Carcinogenesis*, Upton, A., Albert, R., Burns, F., and Shore, R., Eds., Elsevier, New York. 1986; pp. 335-346.
51. Albert RE, Shore R, Harley N, Omran A. Follow-up studies of patients treated by x-ray epilation for Tinea capitis. In: *Radiation carcinogenesis and DNA alterations*, Burns, F., Upton, A., and Silini, G., eds., Plenum, New York. 1986; pp. 1-25.
52. Rothenberg LN, Feig S, Haus A, Jans R, Logan W, Shore R, Sickles E, Stanton L. *Mammography--A User's Guide*. NCRP Report No. 85. National Council on Radiation Protection and Measurements, Bethesda, MD. 1986, 178 pp.
53. Sartwell P, Shore R. Carcinogenic effects of occupational radiation exposure. In: *Radiation Carcinogenesis*, Upton, A., Albert, R., Burns, F., and Shore, R., Eds., Elsevier, New York. 1986; pp. 387-400.
54. Shore R. Carcinogenic effects of radiation on the human breast. In: *Radiation Carcinogenesis*, Upton, A., Albert, R., Burns, F., and Shore, R., Eds., Elsevier, New York. 1986; pp. 279-291.
55. Shore R. Radon exposure and health risk assessment. In: *Proceedings: Governor's Conference on Indoor Radon*. Albany, NY, New York State Dept. of Health and NYU Medical Center. 1986; pp. 72-75.
56. Shore R, Hempelmann L, Woodard E. Carcinogenic effects of radiation on the human thyroid gland. In: *Radiation Carcinogenesis*. Upton, A., Albert, R., Burns, F., and Shore, R., Eds., Elsevier, New York. 1986; pp. 293-309.
57. Shore R, Hildreth N, Woodard E, Dvoretzky P, Hempelmann L, Pasternack B. Breast cancer among women given X-ray therapy for acute postpartum mastitis. *J. Natl. Cancer Inst.* 1986; 77:689-696.
58. Upton A, Albert R, Burns F, Shore R. *Radiation Carcinogenesis*. Elsevier, New York. 1986; 459 pp.
59. Collingwood K, Pasternack B, Shore R. An industry-wide study of respiratory cancer in chemical workers exposed to chloromethyl ethers. *J. Natl. Cancer Inst.* 1987; 78:1127-1136.
60. Shore RE. Applications of epidemiologic methods to podiatric medicine. *Clin. Podiatr. Med. Surg.* 1987; 4:593-604.
61. Shore R. Electromagnetic radiations and cancer: Cause and prevention. *Cancer.* 1988; 62:1747-1754.
62. Barber D, Brooks B, Lanzi L, Shore R, Stansbury P, Wynveen R. Exposure of the U.S. Population from Occupational Radiation. National Council on Radiation Protection and Measurements, Bethesda, MD. 1989, 106 pp.
63. Moseson M, Zeleniuch-Jacquette A, Belsito D, Shore R, Marmor M, Pasternack B. The potential role of nutritional factors in the induction of immunologic abnormalities in HIV-positive homosexual men. *J. Acquir. Immune Defic. Syndromes.* 1989; 2:235-247.
64. Shore RE. Radiation epidemiology: old and new challenges. *Environ. Health Perspec.* 1989; 81:153-156.
65. Shore RE. Risk of thyroid cancer after diagnostic doses of radioiodine (letter). *J. Natl. Cancer Inst.* 1989; 81:715.
66. Hildreth N, Shore R, Dvoretzky P. Risk of breast cancer following thymic irradiation in infancy. *N. Engl. J. Med.* 1989; 321:1281-1284.

67. Gesell TF, Forbes P, Meinhold C, Roesch W, Withers H, Fry R, Shore R. Limit for Exposure to "Hot Particles" on the Skin. National Council on Radiation Protection and Measurements, Report No. 106, 1989, 54 pp.
68. Greenberg HL, Ott M, Shore R. Men assigned to ethylene oxide production or other ethylene oxide related chemical manufacturing: a mortality study. *Br. J. Indust. Med.* 1990; 47:221-230.
69. Shore RE. Overview of radiation-induced skin cancer in humans. *Int. J. Radiat. Biol.* 1990; 57:809-827.
70. Shore RE. Occupational radiation studies: status, problems and prospects. *Health Phys.* 1990; 59:63-68.
71. Shore RE, Harley N, Pasternack B, Gladstein A. Skin cancer susceptibility among irradiated patients (letter). *J. Am. Acad. Dermatol.* 1990; 22:859.
72. Shore RE. Epidemiology of neoplasms of the foot. In: *Neoplasms of the Foot and Leg*, Cole D and DeLauro T, Eds., Saunders, Phila. 1990; 24-32.
73. Steinfeld AD, Shore R. Second malignancies following radiotherapy for testicular seminoma. *Clin. Oncol.* 1990; 2:273-76.
74. Toniolo PG, Pasternack B, Shore R, Sonnenschein E, Koenig K, Rosenberg C, Strax P, Strax S. Endogenous hormones and breast cancer: A prospective cohort study. *Breast Cancer Res. Treat.* 1991; 18:S23-S26.
75. Koenig KL, Pasternack B, Shore R, Strax P. Hair dye use and breast cancer: a case-control study among screening participants. *Am. J. Epidemiol.* 1991; 133:985-995.
76. Little MP, Hawkins M, Shore R, Charles M, Hildreth N. Time variations in the risk of cancer following irradiation in childhood. *Radiat. Res.* 1991; 126:304-316.
77. Shore RE. The epidemiology of radiation-induced thyroid cancer: research issues and needs. *Brit. Inst. Radiol. Reports.* 1991; 22:61-66.
78. Fry RJM, Charles M, Gesell T, Hopewell J, Shore R. The biological basis for dose limitation in the skin (International Commission on Radiological Protection, Publ. 59), *Annals ICRP.* 1991; 22:1-104.
79. Ruberman W, Crow R, Rosenberg C, Rautaharju P, Shore R, Pasternack B. Intermittent ST depression and mortality after myocardial infarction. *Circulation.* 1992; 85:1440-1446.
80. Upton AC, Shore R, Harley N. The health effects of low-level ionizing radiation. *Annu. Rev. Pub. Health.* 1992; 13:127-150.
81. Shore RE, Iyer V, Altschuler B, Pasternack B. Use of human data in quantitative risk assessment of carcinogens. *Regul. Toxicol. Pharmacol.* 1992; 15:180-221.
82. Shore RE. Issues and epidemiologic evidence regarding radiation-induced thyroid cancer. *Radiat. Res.* 1992; 131:98-111.
83. Shore RE. Nonionizing radiation. In: *Environmental and Occupational Medicine*. Rom W, Ed., Little, Brown & Co. 1992; 1093-1108.
84. Shore RE, Hildreth N, Moseson M. Studies of skin cancer and thyroid tumors after irradiation of the head and neck. *Proceedings of the International Conference on Radiation Effects and Protection (Mito, Japan)*. Japan Atomic Energy Research Institute. 1992; 77-79.
85. Shore RE. Radiation and breast cancer risk. *Proceedings of the President's Cancer Panel. Special Commission on Breast Cancer.* 1992; National Institutes of Health, NCI, 4-26.
86. Shore RE, Hildreth N, Dvoretzky P, Pasternack B, Andresen E. Benign thyroid adenomas among persons x-irradiated in infancy for enlarged thymus glands. *Radiat. Res.* 1993; 134:217-223.
87. Shore RE, Hildreth N, Dvoretzky P, Andresen E, Moseson M, Pasternack B. Thyroid cancer among persons given x-ray treatment in infancy for enlarged thymus glands. *Am. J. Epidemiol.* 1993; 137: 1068-80.

88. Shore RE, Gardner M, Pannett B. Ethylene oxide: An assessment of the epidemiologic evidence on carcinogenicity. Chemical Manufacturers Association, 1993, 102 pp.
89. Koenig KL, Toniolo P, Bonfrer B, Pasternack B, Shore R, Bruning P. Reliability of serum prolactin measurements in women. *Cancer Epidemiol Biomark Prev* 1993; 2:411-414.
90. Adelstein S, Boecker B, Brooks A, Kase K, Kronenberg A, McNeil B, Shore R, Templeton W. Research Needs for Radiation Protection, NCRP Report No. 117. National Council on Radiation Protection and Measurements, Bethesda, MD, 1993; 84 pp.
91. Shore RE, Gardner M, Pannett B. Ethylene oxide: An assessment of the epidemiologic evidence on carcinogenicity. *Br J Indust Med* 1993; 50:971-997.
92. Moseson M, Koenig K, Shore R, Pasternack B. The influence of medical conditions associated with hormones on the risk of breast cancer. *Int J Epidemiol* 1993; 22:1000-1009.
93. Day GL, Blot W, Shore R, McLaughlin J, Austin D, Greenberg R, Liff J, Preston-Martin S, Sarkar S, Schoenberg J, Fraumeni J. Second cancers following oral and pharyngeal cancer: Role of tobacco and alcohol. *J Natl Cancer Inst* 1994; 86:131-137.
94. Toniolo P, Koenig K, Pasternack B, Banerjee S, Rosenberg C, Shore R, Strax P, Levitz M. Reliability of measurements of total, protein bound and unbound estradiol in serum. *Cancer Epidemiol Biomark Prev* 1994; 3:47-50.
95. Day GL, Shore R, Blot W, McLaughlin J, Austin D, Greenberg R, Liff J, Preston-Martin S, Sarkar S, Schoenberg J, Fraumeni J. Dietary factors and second primary cancers: A follow-up of oral and pharyngeal cancer patients. *Nutr Cancer* 1994; 21:223-232.
96. Toniolo P, Riboli E, Shore R, Pasternack B. Consumption of meat, animal products, protein and fat and risk of breast cancer: a prospective cohort study in New York. *Epidemiol* 1994; 5:391-397.
97. Day GL, Blot W, Shore R, Schoenberg J, Kohler B, Greenberg R, Liff J, Preston-Martin S, Austin D, McLaughlin J, et al. Second cancers following oral and pharyngeal cancer: patients' characteristics and survival patterns. *Europ. J. Cancer, Part B, Oral Oncology* 1994; 30B:381-386.
98. Rosenberg CR, Pasternack B, Shore R, Koenig K, Toniolo P. Premenopausal estradiol levels and the risk of breast cancer: a new method of controlling for day of the menstrual cycle. *Am. J. Epidemiol.* 1994; 140:518-525.
99. Kay D, Fleisher J, Salmon R, Jones F, Wyer M, Godfree A, Zeleniuch-Jacquotte A, Shore R. Predicting likelihood of gastroenteritis from sea bathing: results from randomised exposure. *Lancet* 1994; 344:905-909.
100. Toniolo P, Shore R. Limitations of nutritional data (Letter). *Epidemiol.* 1995; 6:90-91.
101. Toniolo P, Levitz M, Zeleniuch-Jacquotte A, Banerjee S, Koenig K, Shore R, Strax P, Pasternack B. A prospective study of endogenous estrogens and breast cancer in postmenopausal women. *J. Nat. Cancer Inst.* 1995; 87:190-197.
102. Ron E, Lubin J, Shore R, Mabuchi K, Modan B, Pottern L, Schneider A, Tucker M, Boice J. Thyroid cancer following exposure to external radiation: a pooled analysis of seven studies. *Radiat. Res.* 1995; 141:259-77.
103. Shore R. Epidemiologic data in risk assessment: imperfect but valuable (Editorial). *Am. J. Pub. Health* 1995; 85:474-476.
104. National Academy of Sciences Committee on an Assessment of CDC Radiation Studies (Schull WJ, Benjamin S, Bouville A, Eichholz G, Jennett J, Kheifets L, Martin J, Nelson C, Royal H, Shore R, Thomas R, Wagner H, Wall J). Radiation Dose Reconstruction for Epidemiologic Uses. Washington, DC: National Academy Press, 1995, 138 pp.

105. Rosenberg CR, Pasternack B, Shore R. Height and mortality after myocardial infarction. *J. Community Health* 1995; 20:335-343.
106. Levitz M, Banerjee S, Koenig K, Shore R, Toniolo P, Zeleniuch-Jacquotte A. Response re: a prospective study of endogenous estrogens and breast cancer in postmenopausal women (letter). *J. Nat. Cancer Inst.* 1995; 87:1414-1415.
107. Zeleniuch-Jacquotte A, Toniolo P, Levitz M, Shore R, Koenig K, Banerjee S, Strax P, Pasternack B. Endogenous estrogens and risk of breast cancer by estrogen receptor status: A prospective study in postmenopausal women. *Cancer Epidemiol. Biomark. Prev.* 1995; 4:857-860.
108. Shore RE. Human thyroid cancer induction by ionizing radiation: summary of studies based on external irradiation and radioactive iodine. In: Karaoglou A, Desmet G, Kelly G, Menzel H (eds.), *The radiological consequences of the Chernobyl accident*. European Commission (EUR 16544 EN, Proceedings of the First International Conference, Minsk, Belarus), 1996; 669-675.
109. Marmor M, Titus S, Harrison C, Cord-Cruz EA, Shore R, Vogler M, Krasinski K, Mildvan D, Des Jarlais, D. Weight loss associated with HIV seroconversion among injection-drug users. *J. Acquired Immune Defic. Synd. Human Retrovirol.* 1996; 12:514-18.
110. Shore RE. Epidemiologic issues related to nasopharyngeal radium exposures. *Otolaryngology-Head and Neck Surgery.* 1996; 115:422-428.
111. Shore RE, Marmor M, Titus S, Des Jarlais D. Methadone maintenance and other factors associated with intraindividual temporal trends in injection-drug use. *J. Substance Abuse Treatment.* 1996; 13:241-48.
112. Shore RE. Epidemiological issues related to dose reconstruction. In: Till J (Ed.), *Environmental Dose Reconstruction and Risk Implications (1995 Annual Meeting Proceedings, No. 17)*. Bethesda, MD: National Council on Radiation Protection and Measurements. 1997; 17:245-260.
113. National Academy of Sciences Committee on an Assessment of CDC Radiation Studies (Schull W, Benjamin S, Bouville A, Buffler P, Eichholz G, Jennett C, Kheifets L, Martin J, Neison C, Royal H, Shore R, Thomas R, Wagner H, Wall J). *A Review of the Radiological Assessments Corporation's Fernald Dose Reconstruction Report*. National Academy of Sciences-National Research Council. 1997, 41 pp.
114. Zeleniuch-Jacquotte A, Bruning P, Bonfrer J, Koenig K, Shore R, Kim M, Pasternack B, Toniolo P. Relation of serum levels of testosterone and dehydroepiandrosterone sulfate to risk of breast cancer in postmenopausal women. *Am. J. Epidemiol.* 1997; 145:1030-38.
115. Kato I, Akhmedkhanov A, Koenig K, Toniolo P, Shore R, Riboli E. Prospective study of diet and female colorectal cancer: New York University Women's Health Study. *Nutrition and Cancer.* 1997; 28:276-281.
116. Shore RE, Beebe G, Wickholz B. Joint thyroid studies between the U.S. and Belarus or Ukraine: Cohort Study Design and Methods. World Health Organization, 1996, In Press.
117. Gesell TA, Baum J, Hopewell J, Lantz M, Osborne J, Scott B, Seltzer S, Shore R, Worgul B. Limits for Exposure to "Hot Particles." Bethesda, MD: National Council on Radiation Protection and Measurements. In press. 1997.
118. Shore RE. Nonionizing radiation. In: *Environmental and Occupational Medicine*, Rom W (Ed.) (3rd Ed.) Boston:Little, Brown & Co. In Press, 1997.
119. Zeleniuch-Jacquotte A, Shore RE. Epidemiology of breast cancer. In: *Breast Cancer*. Roses D (Ed.) London:Churchill-Livingston. In press. 1997.
120. Shore RE, Worgul B. Overview of the epidemiology of radiation cataracts. Proceedings of NATO Advanced Research Workshop on Radiation Cataractogenesis. In press, 1997.
121. Shore RE, Vitte P, Kundiev Y, Abdullina A, Dobrovolsky L, Eglite A, Fountos I, Gaistyan L, Guslitser I, Masnyk I, Mikhailina T, Ozola G, Sosnovsky S, Tsvetkova O. Recommendations for epidemiologic

- approaches to studies of the late effects of ocular radiation exposures. Proceedings of NATO Advanced Research Workshop on Radiation Cataractogenesis. In press, 1997.
122. Shore RE. Assessing risk at low doses: problems of confounders and statistical power. Proceedings of NATO Advanced Research Workshop on Fundamentals for the Assessment of Risks from Environmental Radiation. In press, 1997.
 123. Shore RE, Osipova LP, Arwell W, Erees FS, Fry RJM, Ivanov, V, Khanh TQ, Knuschke P, Komotchkov MM, Quastel MR, Tomasek L, Tyrrell RM. Recommendations of the task group on future research in radiation risk assessment. Proceedings of NATO Advanced Research Workshop on Fundamentals for the Assessment of Risks from Environmental Radiation. In press, 1997.
 124. Riboli E, Toniolo P, Kaaks R, Shore R, Casagrande C, Pasternack B. Reproducibility of a food frequency questionnaire used in the New York University Women's Health Study: Effect of self-selection by study subjects. *Eur. J. Clin. Nutr.* Submitted for publication, 1997.
 125. Shore RE, Holm L-E, Mabuchi K, Land C. Risk of brain and nervous system tumors from exposure to ionizing radiation. *Radiat. Res.* Submitted for publication, 1997.
 126. Kato I, Toniolo P, Akhmedkhanov A, Koenig K, Shore R, Zeleniuch-Jacquotte A. Prospective study of factors influencing the onset of natural menopause. Submitted for publication, 1997.

UNIVERSITY OF SOUTHERN CALIFORNIA
School of Medicine

A. PERSONAL INFORMATION

1. Name: Carole Ann Spencer, Ph.D., M.T.
2. Business Address: Clinical Research Center, Room 6602,
LAC-USC Medical Center,
1200 North State St.,
Los Angeles, CA 90033
3. Business Phone: (213) 226 4632
Business Fax: (213) 226 4969
E-Mail Address: cspencer@hsc.usc.edu
4. Home Address: 2282 Rue Le Charlene
Rancho Palos Verdes, CA 90275
5. Home Phone: (310) 832 2468
Home FAX: (310) 833 7272
6. Date of Birth: December 14, 1946
7. Place of Birth: Morden, Surrey, England, UK
8. Citizenship: U.S. and British
9. Sex: Female
10. Marital Status: Married
11. Spouse's First Name: Philip
12. Number of Children: Two
13. Social Security Number: 546-47-1433

B. EDUCATION

1. High School: Pinner County Grammar School, Pinner Middlesex, UK, 1965, Advanced Level Physics, Chemistry, Mathematics
2. Undergraduate: Bath University of Technology, Bath, Somerset, England, 1969, B.Sc. 1st Class Honors, Applied Biochemistry
3. Industrial Internships:
 - Unilever Research Laboratories, Colworth House, Bedford, U.K. March 1967- September 1967
 - I.C.I. Pharmaceuticals Ltd, Alderley Edge, Cheshire, U.K. March 1968- September 1968
4. Graduate: Glasgow University, Glasgow, Scotland, 1969-1972, Ph.D., Faculty of Medicine
5. Glasgow Royal ACB Mastership in Clinical Biochemistry (Part I Infirmity theory) 1976.
6. Licensure: California Clinical Chemist Medical Technologist. 1985. License #00457
7. Awards:
 - Gold Medal, Elocution and Drama (London Academy of Music and Dramatic Art) 1967.
 - Outstanding Speaker. American Association for Clinical Chemistry 1992.
 - Distinguished Scientist Award. Clinical Ligand Assay Society 1998.
 - Outstanding Speaker. American Association for Clinical Chemistry 1997.

C. PROFESSIONAL BACKGROUND*Academic Appointments:*

- Lecturer in Biochemistry, Glasgow University, 1972-1973
- Assistant Professor of Research Medicine, USC School of Medicine, 1980-1988
- Associate Professor of Research Medicine, USC School of Medicine, 1988-1994
- Professor of Research Medicine, USC School of Medicine, 1995- present.

Specific teaching responsibilities

- Glasgow University, Department of Biochemistry, Tutor, 1970-1972
- Glasgow Royal Infirmary, lecturer for Mastership in Biochemistry Course, 1975-1977
- Glasgow Royal Infirmary, Department of Biochemistry, Lecturer/Tutor to 4th Year Medical Students, 1975-1977
- Glasgow Royal Infirmary, Department of Biochemistry, lecturer, in-service technician training course, 1975-1977
- USC Medical school, teaching in thyroid physiology, 1978-1980
- Department of Medicine, USC, lectures in thyroid pathophysiology and laboratory techniques, 1980- present

Specific administrative responsibilities

- GCRC Core Laboratory Director, Clinical Research Center, USC , 1977- present
- GCRC Core Low Level Ligand Detection Laboratory, Director, USC, 1993-present
- Director, USC Endocrine Services Laboratory, 1980- present
- American Thyroid Association committees:
 - Neonatal Screening (1984-86)
 - Program (1987)
 - Nomenclature (1986-1990)
 - Public Health (1991-present)
 - Executive Council (1995-present)

Military Service

- None

Other employment or activity

- Glasgow Royal Infirmary, Dept of Pathological Biochemistry, Biochemist. 1973-1977
- American Association for Clinical Chemists Speakers Bureau 1988 - present
- American Thyroid Association Speakers Bureau, 1992- present
- Knoll Pharmaceuticals Speakers Bureau, 1993- present

D. SOCIETY MEMBERSHIPS**Local**

- Southern California Chapter of American Association of Clinical Chemists, 1978-present
- Southern California Chapter, Clinical Ligand Assay Society, 1980- present
- Cross-Town Endocrine Club

National

- American Association of Clinical Chemists (1978)
- American Association of Clinical Endocrinologists (1993)
- American Federation for Clinical Research (1980)
- American Thyroid Association (1981)
- Clinical Ligand Assay Society (1980)
- Endocrine Society Member (1981)

International

- Association of Clinical Biochemists, U.K. (1976)
- European Thyroid Association (1987)

E. EDITORIAL BOARDS

- Journal of Clinical Endocrinology and Metabolism 1984-1988
- American Association of Clinical Chemistry 1996- present
- Hormone and Metabolic Research 1996- present

Reviewer for:

- Annals of Internal Medicine
- Clinical Chemistry
- Gerontology
- Hormone and Metabolic Research
- Journal of Clinical Endocrinology and Metabolism
- Journal of Clinical Investigation
- Journal of Endocrinological Investigation

F. CONSULTANCIES

- Abbott Diagnostics
- Genzyme Corporation
- Knoll Pharmaceuticals
- Nichols Institute Diagnostics
- Santa Monica Thyroid Diagnostic Center

G. RESEARCH ACTIVITIES:

Major areas of Research Interest:

- Thyroid physiology and pathology
- Thyroglobulin and Thyroid Cancer
- Immunoassay techniques (TSH, Thyroglobulin, free thyroid hormone methods)
- Thyroid hormone metabolism
- Cost effective use of thyroid tests

Research in progress

- Studies on the physiology of thyroid hormone control of circulating Thyrotropin (TSH).
- Studies on non-thyroid hormonal and mechanisms for regulating TSH
- Diagnosis of thyroid hormone resistance syndromes.
- Clinical utility of thyroglobulin measurement in the follow up of patients with differentiated thyroid cancer.
- Parameters for optimizing thyroid hormone suppression of TSH for differentiated thyroid cancer.

BIBLIOGRAPHY: (Peer Reviewed)

1. Gould, G.W., Jones, A., and Spencer, (nee Wrighton), C.A.: Limitation of the initiation of germination of bacterial spores as a spore control procedure. *J Appl Bact* 31:357-366, 1968.
2. Spencer, C.A., Symons, S.A., and Brunt, R.V.: The preparation and some properties of Yeast Mitochondria. *Arch Microbiol* 75: 246-259, 1971.
3. Spencer, C.A., Bremner, F., and Ratcliffe, J.G.: Assessment of thyroid function in patients treated with 125-I for thyrotoxicosis. *J Endocr* 65: 18-19P, 1975.
4. McLarty, D.G., O'Boule, J.H., Spencer, C.A., and Ratcliffe, J.G.: Effect of lithium on hypothalamic-pituitary-thyroid function in patients with affective disorders. *Brit Med J* 3: 623-626, 1975.
5. Challand, G.S., Spencer, C.A., and Ratcliffe, J.G.: Observations on the automated calculation of radioimmunoassay results. *Ann Clin Biochem* 13: 354-360, 1976.
6. Bremner, W.F., Spencer, C.A., Ratcliffe, W.A., Greg, W.R., and Ratcliffe, J.G.: The assessment of 125-I treatment of thyrotoxicosis. *Clin Endocrinol* 5: 225-234, 1976.
7. Spencer, C.A., and Challand, G.S.: An interfering substance in a radioimmunoassay for human TSH. *Clin Chem* 23: 584-588, 1977.
8. Spencer, C.A., Greenstadt, M.A., Wheeler, W.S., Kletzky, O.A., and Nicoloff, J.T.: The influence of long-term low-dose thyrotropin-releasing hormone infusions on serum thyrotropin and prolactin concentrations in man. *J Clin Endocrinol Metab* 51: 771-775, 1980.
9. Kaptein, E.M., Spencer, C.A., Kamiel, M.B., and Nicoloff, J.T.: Prolonged dopamine administration and thyroid economy in normal and critically ill subjects. *J Clin Endocrinol Metab* 51: 387-393, 1980.
10. Kaptein, E.M., Kletzky, O.A., Spencer, C.A., and Nicoloff, J.T.: Effects of prolonged dopamine infusion on anterior pituitary function in normal males. *J Clin Endocrinol Metab* 51: 488-491, 1980.
11. Spencer, C.A., and Nicoloff, J.T.: Strategy for improvement of the sensitivity and specificity of the human TSH (h-TSH) assay. *Clin Chem Acta* 108: 415-424, 1980.
12. Kaptein, E.M., Grieb, D.A., Spencer, C.A., Wheeler, W.S., and Nicoloff, J.T.: Thyroxine metabolism in the low T4 state of critical nonthyroidal illness. *J Clin Endocrinol Metab* 53: 764-771, 1981.

13. Eisenberg, D., Silberman, H., Ryan, J., Shafter, R., Weiss, J., Kaptein, E.M., Nicoloff, J.T., and Spencer, C.A.: Prognostic significance of thyroid function tests in critically ill patients. *Surgical Forum* 31: 211-213, 1980.
14. Kaptein, E.M., MacIntyre, S.S., Weiner, J.M., Spencer, C.A., and Nicoloff, J.T.: Free thyroxine estimates in nonthyroidal illness: Comparison of eight methods. *J Clin Endocrinol Metab* 52: 1073-1077, 1981.
15. Nicoloff, J.T., Warren, D.W., Mizuno, L., Spencer, C.A., and Kaptein, E.M.: Hepatic thyroxine (T4) uptake as a mechanism for regulation of triiodothyronine (T3) generation in rat liver slice. *Life Sciences* 28: 1713-1718, 1981.
16. Alexander, C.M., Kaptein, E.M., Lum, S.M.C., Spencer, C.A., Kumar, D., Nicoloff, J.T., and Spencer, C.A.: Thyroid indices in critically ill patients: Relation to prognosis and nutritional factors. *Am J Clin Surgery* 1: 174-179, 1982.
17. Silberman, H., Eisenberg, D., Ryan, J., Shofler, R., Weiss, J., Kaptein, E., Nicoloff, J.T., and Spencer, C.A.: Thyroid indices in critically ill patients: Relation to prognosis and nutritional factors. *Am J Clin Surgery* 1: 174-179, 1982.
18. Carmel, R., and Spencer, C.A.: Clinical and subclinical thyroid disorders with pernicious anemia: Observations on patients with low and elevated TSH levels and a possible association of blood group O with hyperthyroidism. *Arch Int Med* 142: 1465-1469, 1982.
19. Spencer, C.A., Lum, S.M.C., Wilber, J.F., Kaptein, E.M., and Nicoloff, J.T.: Dynamics of serum TSH and thyroid hormone changes in fasting. *J Clin Endocrinol Metab* 56: 883-888, 1983.
20. Mashchak, C.A., Kletzky, O.A., Spencer, C.A., and Artal, R.: Transient effect of L-5-hydroxytryptophan on pituitary function in men and women. *J Clin Endocrinol Metab* 56: 170-176, 1983.
21. Penny, R., Spencer, C.A., Frasier, S.D., and Nicoloff, J.T.: Thyroid stimulating hormone (TSH) and thyroglobulin (Tg) levels decrease with chronological age in children and adolescents. *J Clin Endocrinol Metab* 56: 177-180, 1983.
22. Lum, S.M.C., Nicoloff, J.T., Spencer, C.A., Kaptein, E.M.: Evidence for peripheral tissue regulation of T4 to T3 conversion for maintenance of serum T3 levels in a T4 deficient state. *J Clin Invest* 73: 570-575, 1983.
23. Penny, R., Spencer, C.A., Frasier, S.D., and Nicoloff, J.T.: Cord serum thyroid stimulating hormone and thyroglobulin levels decline with increasing birth weight in normal newborns. *J Clin Endocrinol Metab* 59: 979-985, 1984.
24. Spencer, C.A., Platler, B., Guttler, R.B., and Nicoloff, J.T.: Heterogeneity of 125-I labelled thyroglobulin preparations. *Clin Chem Acta* 151: 121-132, 1985.

25. Nimalasuriya, A., Spencer, C.A., Tse, J.K., and Nicoloff, J.T.: Generation of the diurnal pattern of serum T3. *J Clin Endocrinol Metab* 62: 153-158, 1986.
26. Spencer, C.A., Platler, B.W., and Nicoloff, J.T.: The effect of 125-I thyroglobulin tracer heterogeneity on serum Tg RIA measurement. *Clin Chem Acta* 153: 105-115, 1985.
27. Penny, R., Sims, M.E., Campbell, W.G., Spencer, C.A., and Nicoloff, J.T.: Thyroid indices in human arterial and venous cord blood: Significantly greater levels of reverse triiodothyronine (rT3) in venous blood than in arterial blood. *Metabolism* 35: 645-648, 1986.
28. Barnes, R.B., Mileikowsky, G.N., Spencer, C.A., and Lobo, R.A.: Dopaminergic tone in polycystic ovary syndrome (PCO). *J Clin Endocrinol Metab* 63: 506-509, 1988.
29. Spencer, C.A., Lai-Rosenfeld, A.O., Guttler, R.B., LoPresti, J., Marcus, A.O., Nimalasuriya, A., Doss, R.C., Green, B.J., and Nicoloff, J.T.: The significance of subnormal TSH levels in patients on exogenous T4 suppression - assessment by a sensitive immunoenzymometric assay (IEMA). *J Clin Endocrinol Metab* 63: 349-355, 1986.
30. Hemphill, L.C., Spencer, C.A., Nicoloff, J.T., Blankenhorn, D.H., Nessim, S.A., Chin, H.P.: Alterations in serum thyroid hormonal indices with colestipol-niacin lipid lowering therapy. *Ann Int Med* 107: 324-329, 1987.
31. Spencer, C.A., Eigen, A., Duda, M., Shen, D., Qualls, S., Weiss, S., and Nicoloff, J.T.: Sensitive TSH tests - specificity limitations for screening for thyroid disease in hospitalized patients. *Clin Chem* 33: 1391-1396, 1987.
32. Spencer, C.A.: Clinical utility and cost effectiveness of S-TSH in ambulatory and hospitalized patients. *Mayo Clinic Proceedings* 63: 1214-1222, 1988.
33. LoPresti, J.S., Eigen, A., Anderson, K.P., Spencer, C.A., and Nicoloff, J.T.: Alterations in rT3 metabolism in response to propylthiouracil (PTU) dexamethasone (DEX) and Thyroxine (T4) administration in man. *JCI* 84: 1650-1656 (1989).
34. Silberman, H., Eisenberg, D., Ryan, J., Sholler, R., Niland, J., Kaptein, E.M., Nicoloff, J.T., and Spencer, C.A.: The relation of thyroid indices in the critically ill patient to prognosis and nutritional factors. *Surg Gynec Obstet* 166: 223-228, 1988.
35. LoPresti, J.S., Fried J.C., Spencer, C.A., and Nicoloff, J.T.: Unique alterations of thyroid hormone indices in AIDS. *Ann. Intern. Med*, 110: 970-975, 1989.
36. Spencer, C.A., LoPresti, J.S., Patel, A., Guttler, R.B., Eigen, A., Shen, D., Gray, D., and Nicoloff, J.T.: Applications of a new chemiluminometric TSH assay to subnormal measurement. *JCEM*, 70: 453-60, 1990.
37. Hay, I.D., Bayer, M.F., Kaplan, M.M., Klee, G.G., Larsen, P.R., and Spencer, C.A.: American Thyroid Association assessment of current free thyroid hormone and thyrotropin measurements and guidelines for future clinical assays. *Clin Chem*, 37: 2002-8, 1991.

38. LoPresti, J.S., Mizuno, L., Nimalysuria, A., Anderson, K.P., Spencer, C.A., and Nicoloff, J.T.: Characteristics of 3,5,3'-triiodothyronine sulfate (T3S) metabolism in euthyroid man. *JCEM* 73: 703-9, 1991.
39. Spencer, C.A., Schwarzbein, D., Guttler, R.B., LoPresti, J.S. and Nicoloff, J.T.: TRH stimulation test responses employing 3rd and 4th generation TSH assay technology. *J Clin Endocrinol Metab*, 76: 494-8, 1993.
40. Wilkinson, E., Rae, P.W., Thomson, K.J., Toft, A.D., Spencer, C.A., and Beckett, G.J.: Chemiluminescent third-generation assay (Amerlite TSH-30) of Thyroid-Stimulating Hormone in serum or plasma assessed. *Clin Chem* 39: 2166-73, 1993.
41. Arbelle J, Gacad, MA, Spencer CA, Adams JS.: Absence of thyroid hormone resistance in New World Primates. *American Journal of Primatology* 32:215-22, 1994.
42. Spencer, CA, LoPresti JS, J. Nicoloff, Dlott, R. Schwarzbein, D. Multiphasic TSH responses to thyroid hormone administration in man. *J Clin Endocrinol Metab* 80:854-9, 1995.
43. Spencer CA, Takeuchi M, Kazarosyan M, McKenzie F, Beckett G, Wilkinson, E. Inter-laboratory, inter-method functional sensitivity of immunometric assays for thyrotropin (TSH): Impact on reliability of measurement of subnormal concentrations. *Clinical Chemistry* 41: 367-74, 1995.
44. Spencer CA, Takeuchi M, Kazarosyan M. Current Status and Performance Goals for Serum TSH Assays. *Clinical Chemistry* 42: 140-5, 1996.
45. Spencer CA, Takeuchi M, Kazarosyan M. Current Status and Performance Goals for Serum Thyroglobulin Assays. *Clinical Chemistry* 42:164-73, 1996.
46. Spencer CA, M. Takeuchi, M. Kazarosyan, Wang CC, Guttler RB, PA Singer, Fatemi S, LoPresti J, Nicoloff JT. Serum thyroglobulin autoantibodies: Prevalence, influence on serum Thyroglobulin (Tg) measurement and prognostic significance in patients with differentiated thyroid carcinoma. *JCEM* 83:1121-7, 1998.

CHAPTERS

1. 1995. In: "Principles of Nuclear Medicine". Chapter 30 - The Thyroid. Pages: 595-628. Editors: Wagner HN, Szabo Z, Buchanan JW. Publishers: W.B. Saunders. Philadelphia, PA.
2. 1995. Endocrinology and Metabolism Clinics of North America. Thyroid Cancer 1. Thyroglobulin measurement. Pages 841-63. Editor: K.D. Burman. Publisher: W.B. Saunders, Philadelphia, PA.
3. 1996 Spencer CA. Chapter 20 "Thyroglobulin". Pages 406-15. In Werner and Ingbar's "THE THYROID" 7th. Edition. Editors: Lewis E. Braverman and Robert D. Utiger. J.B. Lippincott Company.

MANUSCRIPTS IN PRESS

MANUSCRIPTS SUBMITTED

1. Beale EO, Spencer CA, Nicoloff JT, Nakao SL, LoPresti JS, Liang H. Rapid TSH inhibition by near physiologic concentrations of triiodothyronine in man. Submitted JCI.
2. Ortega AE, Peters JH, Incarbone R, Estrada L, Ehsan A, Kwan Y, Nicoloff JT, Spencer CA, Moore-Jeffries E, Kuchta K. A prospective randomized comparison of the metabolic and stress hormonal responses of laparoscopic and open cholecystectomy.

MANUSCRIPTS IN PREPARATION

1. Spencer CA, Wang C, LoPresti J, Guttler RB, Singer P. Pre- and post-surgical serum Thyroglobulin (Tg) patterns related to long-term clinical outcome of differentiated thyroid cancers. For J Clin Endocrinol Metab
2. Spencer CA, LoPresti JS, Schwarzbein D, Nicoloff JT. Nuclear and non-nuclear mechanisms of thyrotrophic TSH control in man. For J Clin Endocrinol Metab
3. Spencer CA, Johnson D and J LoPresti. Modulation of serum TSH by physiologic T3 levels.
4. Spencer CA, Johnson D, Eng S, LoPresti J and Nicoloff J. Biologic influence of subnormal TSH levels on thyroid gland function. For J Clin Endocrinol Metab
5. Lo Presti JS, Dlott RS, Spencer, CA and Nicoloff JT. T4 and T3 kinetics in fasting man: The role of 3,5,3'-triiodothyroacetic acid formation in the low T3 state. For J Clin Endocrinol Metab
6. Dlott, RS, LoPresti, JS, Spencer, CA, Nicoloff, JT. Triac kinetics in man: A potential autocrine thyroid hormone. For J Clin Endocrinol Metab
7. LoPresti JS, Dlott, RS, Spencer CA, Nicoloff, JT: Glucocorticoids: an important regulator of triac generation in man. For J Clin Endocrinol Metab
8. Dlott, RS, LoPresti, JS, Spencer, CA and Nicoloff, JT. Disposal routes of triac in man: role of sulfate formation. For J Clin Endocrinol Metab

BIBLIOGRAPHY: (Non-peer Review)

1. Hooper, M.J., Ratcliffe, J.G., Ratcliffe, W.A., Spencer, C.A., McLarty, D.G., and Alexander, W.D.: Thyroid function in patients in clinical remission after medical treatment of thyrotoxicosis. In: "Thyroid Hormone Metabolism", 1975, pgs 367-382, W.A. Harland and J.S. Orr (eds), Academic Press.
2. Greenstadt, M.A., Spencer, C.A., Lum, S.N., Kaptein, E.M., Nicoloff, J.T.: Nonisotopic method for determination of oral thyroxine absorption. Program of the Joint FDA/USP Workshop of Drug and Reference Standards, for Insulins, Somatotropins, and Thyroid-Axis Drugs, Washington, DC 5/19/82.

3. Kaptein, E.M., MacIntyre, S.S., Weiner, J.M., Spencer, C.A., and Nicoloff, J.T.: Free thyroxine estimates in nonthyroidal illnesses: A comparison of eight methods. Yearbook of Endocrinology 1982, 98-101.
4. Nicoloff, J.T., Lum, S.M.C., Spencer, C.A., and Morris, R.: Peripheral autoregulation of thyroxine to triiodothyronine conversion in man. Peripheral Metabolism of Thyroxine, Hormone and Metabolic Res. Supplement #14. Eds. U. Loos and L. Wartofsky, Georg Thieme Verlag, Stuttgart, pp. 74-79, 1983.
5. Nimalasuriya, A., Lin, S., LoPresti, J., Marcus, A.O., Spencer, C.A., and Nicoloff, J.T.: Evidence for dual peripheral 5'deiodinases (5'D) regulating circulating T3 levels in man. Frontiers in Thyroidology 1:519-523, 1986.
6. Spencer, C.A.: Comparative clinical value of free T4 estimation using different methodological approaches. NucCompac 16: 321-327, 1985.
7. Spencer, C.A.: Clinical utility of sensitive TSH assays. Thyroid Today Vol IX No. 2, 1986.
8. Spencer, C.A.: Clinical evaluation of free T4 techniques. J Endocrinol Invest 9: 57-66, 1986.
9. Spencer, C.A.: Thyroid profiling for the 1990's - Free T4 estimate or sensitive TSH measurement. J Clin Immuno. 12: 82-89, 1989.
10. Kaplan, M, Ridgway, E.C., Spencer, C.A.: Hypothyroidism: The case for accurate evaluation monograph. The sensitive TSH assay. A roundtable discussion. Boots Flint Monograph. 1989.
11. Spencer, C.A.: The sensitive TSH assay in thyroid disease: Hypothyroidism Update. Continuing Pharmacy Education. Boots Flint Monograph 1989.
12. Nicoloff, J.T. and Spencer, C.A.: Clinical Review 12: The use and misuse of sensitive TSH assays. JCEM 71: 553-558, 1990.
13. Spencer, C.A. and Nicoloff, J.T.: Serum TSH measurement - A 1990 status report. Thyroid Today, XIII #4 December, 1990.
14. Spencer, C.A.: Current trends in thyroid profiling. Biorad Laboratories Monograph, July 1991.
15. Spencer, C.A.: In Service Training Monograph. 1991 American Association for Clinical Chemistry. "Strategy For Use of Serum Thyrotropin vs Free Thyroxine Measurement in Thyroid Testing".
16. Spencer, C.A.: Ask the experts (third generation TSH). CLAS News 3:5, 1992.
17. Nicoloff, J.T. and Spencer, C.A.: Integration of thyroid hormones with hypothalamic factors on pituitary TSH secretion. Presented at the 4th International Thyroid Symposium, May 6-9, 1992, Graz, Austria. Acta Medica Austriaca, 19: 68, 1992.
18. Spencer, C.A. Further developments in TSH technology. Experimental and Clinical Endocrinology: 102, 12-22, 1994.

LETTERS TO THE EDITOR

1. Nicoloff, J.T. and Spencer, C.A.: Editorial: Non-TSH dependent thyroid secretion. *J Clin Endocrinol Metab* 75: 343, 1992.
2. Becker, DV., Bigos, ST., Gaitan, E., Morris, JC., Rallison M.L., Spencer, C.A., Sugawara, M., Van Middlesworth, L., Wartofsky, L.: Optimal use of blood tests for assessment of thyroid function. *JAMA* 269: 2736, 1993.
3. Morris, JC, Rallison ML, Spencer, CA, Sugawara, M, Van Middlesworth, L, Wartofsky, L. Optimal use of blood tests for assessment of thyroid function. *Thyroid* 353-4, 1993.
4. Spencer, CA., LoPresti, J.S., Van Middlesworth, L., Wartofsky, L., Becker, D.V., Bigos, ST, Gaitan, E, Morris III, J C, Rallison, M. Sugawara, M. Screening for thyroid dysfunction: Which test is better? Reply. *JAMA* 270: 2297-8, 1993.
5. Spencer, CA, M. Takeuchi. Letter to the editor. Functional sensitivity of thyrotropin assays. *Clinical Chemistry* 41: 476, 1995.
6. Spencer CA. Recoveries cannot be used to authenticate thyroglobulin (Tg) measurements when sera contain Tg autoantibodies (TgAb). *Clin Chem* 42: 661-3, 1996
7. Spencer CA. Editorial: The Dynamics of Thyroid Hormone Suppression of Serum TSH. *Eur J Endocrinol.* 135: 285-6, 1996
8. Spencer CA, Takeuchi M: What does "functional sensitivity" mean? A reply. *Clinical Chemistry* 42:2051-2, 1996.
9. Spencer CA, Takeuchi M. Further Comment on Tg IMAs. Reply. *Clin Chem* 43:414, 1997.

ABSTRACTS

1. Spencer, C.A., Bremner, W.F., Ratcliffe, W.A., and Ratcliffe, J.G.: Assessment of thyroid function in patients with ¹²⁵I for thyrotoxicosis. Presented at the Proceedings for Endocrinology, November 28-29, 1974.
2. Spencer, C.A., and Henderson, A.R.: The effects of feeding on the apparent kinetic constants and activation energy of the magnesium ion-activated deoxyribonucleic acid-dependent ribonucleic acid polymerase of rat liver. Presented at the Proceedings of the Biochemical Society, July 29-30, 1971.
3. Kaptein, E.M., Kamiel, M.B., Spencer, C.A., Hall, T.D., and Nicoloff, J.T.: Suppression of thyroid function with severe illness. Presented at the Western Society for Clinical Research meeting, February 1-3, 1978, Carmel, California. *Clin Res* 26: 147, 1978.
4. Kaptein, E.M., Kamiel, M.B., Spencer, C.A., Hall, T.D., and Nicoloff, J.T.: Suppression of thyroid function with severe illness. Presented at the poster session of the Endocrine Society meeting, 1978, Miami Beach, Florida, Abstract #74.

5. Spencer, C.A., Foelschow, J.F., and Nicoloff, J.T.: New approaches to measurement of human TSH (h-TSH) in serum. *Clin Res* 27: 76, 1979.
6. Kaptein, E.M., Nicoloff, J.T., Hall, T.D., Rostami, H., and Spencer, C.A.: Tissue sites for triiodothyronine (T3) and reverse triiodothyronine (rT3) conversion from thyroxine in man. *Clin Res* 27: 254, 1979.
7. Spencer, C.A., Foelschow, J.F., and Nicoloff, J.T.: New approaches to measurement of human TSH (h-TSH) in serum. Presented at the Endocrine Society meeting, Anaheim, CA June, 1979, Abstract #84.
8. Kaptein, E.M., Wheeler, W.S., Spencer, C.A., Hall, T.D., and Nicoloff, J.T.: Thyroid hormone economy in critical illness. Presented at the Endocrine Society meeting, Anaheim, CA June, 1979, Abst. #669.
9. Eisenberg, D., Silberman, H., ryan, J., Shafter, R., Weiss, J., Kaptein, E.M., Nicoloff, J.T., and Spencer, C.A.: Prognostic significance of thyroid function tests in critically ill patients. Presented at the American College of Surgeon's Surgical Forum, October 20, 1980, Atlanta, GA.
10. Warren, D.W., Spencer, C.A., Kaptein, E.M., and Nicoloff, J.T.: Effect of charged substances on entry of thyroxine (T4) and conversion of triiodothyronine (T3) in rat liver. Presented at the Endocrine Society meeting, June, 1980, Washington, D.C., Abstract #594.
11. Spencer, C.A., Greenstadt, M.A., Wheeler, W.S., Kletzky, O.A., and Nicoloff, J.T.: TRH pituitary pacing in normal man. Presented at the Endocrine Society meeting, June, 1980, Washington, D.C., Abstract #420.
12. Spencer, C.A., Greenstadt, M.A., Kaptein, E.M., and Nicoloff, J.T.: Regulation of the circadian pattern in man. Presented at the American Thyroid Association meeting, San Diego, CA, November 5-8, 1980.
13. Greenstadt, M.A., Nicoloff, J.T., Spencer, C.A. and Kaptein, E.M.: Development of a non-isotopic method for determination of oral T4 absorption. Presented at the Western Society for Clinical Research, Carmel, CA, February 4-6, 1981, *Clin Res* 29: 83, 1981.
14. Kaptein, E.M., MacIntyre, S., Spencer, C.A., and Nicoloff, J.T.: Comparison of serum free thyroxine methods in the low T4 state of nonthyroidal illness (NTI) and in hypothyroidism. Presented at the Western Section meeting of the AFCR, Carmel, CA., February 4-6, 1981., *Clin Res* 29: 28, 1981.
15. Montoro, M., Guttler, R.B., Spencer, C.A., Kaptein, E.M., and Nicoloff, J.T.: Adult thyroid screening in hospital patients. *Clin Res* 29: 39, 1981.
16. Spencer, C.A., Lum, S., Richards, D.L., Mallik, T., Mori, M., Wilber, J.F., and Nicoloff, J.T.: TRH mediated TSH decreases in fasting. Presented at the Endocrine Society meeting, June 1981, Cincinnati, Ohio, Abstract #732.
17. Spencer, C.A., Platler, B.W., Guttler, R.B., Lum, S., and Nicoloff, J.T.: Improvements in 125I Tg RIA: Separation of Athyreotic (AT) for Normal (N) Tg Levels. Presented at the American Thyroid Association Meeting, September, 1982, Quebec City. Abstract #T6.

18. Lum, S.M.C., Spencer, C.A., Kaptein, E.M., and Nicoloff, J.T.: A "short loop" mechanism for maintenance of serum T3 concentrations after acute T3 withdrawal in euthyroid subjects. Presented at the Western Society for Clinical Research, Carmel, CA 2/17-19/82. Clin Res 30: 30, 1982.
19. Nicoloff, J.T., Lum, S.M.C., Spencer, C.A., and Kaptein, E.M.: Evidence for a "short loop" mechanism for regulation of peripheral T4 to T3 conversion in man. Presented at the AAP meeting, Washington, D.C., 5/7-10/82. Clin Res 30: 553, 1982.
20. Lum, S.M.C., Nicoloff, J.T., Spencer, C.A., and Kaptein, E.M.: Evidence of peripheral tissue autoregulation of T4 to T3 conversion in man. Endocrine Society, San Francisco, CA 1982.
21. Morris, R., Lum, S.M., Kaptein, E.M., Spencer, C.A., and Nicoloff, J.T.: Autoregulation of peripheral thyroxine (T4) to triiodothyronine (T3) conversion in man. Clin Res 31: 85, 1983.
22. Morris, R., Lum, S.M., Kaptein, E.M., Spencer, C.A., and Nicoloff, J.T.: Autoregulation of peripheral thyroxine (T4) to triiodothyronine (T3) conversion in man. Presented at the National Meeting of the AFRC, 4/29-5/2/83, Washington, D.C., Clin Res 31: 274, 1983.
23. Lum, S.M.C., Morris, R., Spencer, C., and Nicoloff, J.T.: Dual peripheral 5'deiodinase (5'D) systems affecting circulating T3 levels in man. Endocrine Society meeting, June 7-10, 1983, San Antonio, TX.
24. Spencer, C.A., Platler, B.W., and Nicoloff, J.T.: Problems in interlaboratory comparison of serum thyroglobulin (Tg). Presented at the American Thyroid Association meeting, October 5-8, 1983, New Orleans, LA (T30).
25. Marcus, A., Nimalasuriya, A., Nicoloff, A.C., Mizuno, L., and Nicoloff, J.T.: Serum triiodothyronine sulfate (T3SO4) measurement in man. Presented at the Western Society for Clinical Investigation meeting, February 7-10, 1984, in Carmel, California.
26. Nimalasuriya, A., Spencer, C.A., and Nicoloff, J.T.: Diurnal rhythmicity in peripheral T4 to T3 conversion in man. 7th International Congress of Endocrinology, 6/30-7/7/84, Quebec, Canada.
27. Spencer, C.A., Greenstadt, M., and Nicoloff, J.T.: Role of cortisol (C) in the physiologic regulation of TSH release in man. 7th International Congress of Endocrinology, 6/30-7/7/84, Quebec, Canada.
28. Nimalasuriya, A., Mizuno, L.Y., Spencer, C.A., Marcus, A., and Nicoloff, J.T.: Pattern of triiodothyroninesulfate (T3SO4) metabolism in serum and urine of man. Presented at the Annual Meeting of the American Thyroid Association, New York, Sept 18-21, 1984, T-57.
29. Spencer, C.A., Platler, B., and Nicoloff, J.T.: EDTA stabilization of 125I labeled 19S for serum Tg RIA. Clin Res 33: 30 A 1985.
30. Nimalasuriya, A., Spencer, C.A., Leonard, E., Morris, R., and Nicoloff, J.T.: Dual peripheral 5'deiodinases (5'D) affecting serum T3 in low and high T4 states in man. Clin Res 33: 94 A 1985.
31. Marcus, A., Spencer, C.A., Townsend, R., Brill, J., Nimalasuriya, A., and Nicoloff, J.T.: Use of serum T3 for evaluating response to alimentation. Clin Res 33: 28 A, 1985.

32. Marcus, A.O., Spencer, C.A., Townsend, R., Brill, J., Nimalasuriya, A., and Nicoloff, J.T.: Dynamic changes in serum T3 as a reflection of anabolic responses to alimentation. Submitted AFCR, Clin Res 33: 311A, 1985.
33. Nimalasuriya, A., Spencer, C.A., Leonard, E., Moris, R., and Nicoloff, J.T.: Dual peripheral 5'deiodinases (5'D) affecting serum T3 in low and high T4 states in man. Submitted Clin Res 33: 312A, 1985.
34. Penny, R., Sims, M., Campbell, W., Spencer, C.A., and Nicoloff, J.T.: Reverse triiodothyronine (rT3) levels in paired arterial and venous cord blood are consistent with greater inner ring deiodination of thyroxine (T4) on the venous side. Pediatric Research June 1985.
35. Spencer, C.A., Platler, B., and Nicoloff, J.T.: EDTA stabilization of 125I labeled 19S Tg for serum Tg RIA. Clin Res 33: 30 A 1985.
36. Nimalasuriya, A., Lin, S., LoPresti, J., Marcus, A., Spencer, C., and Nicoloff, J.T.: Evidence for dual peripheral 5'deiodinases (5'D) regulating circulating T3 levels in man. International Thyroid Meeting San Paulo, 1985.
37. Spencer, C.A., Guttler, R.B., Rosenfeld, A., and Nicoloff, J.T.: Physiological relevance of subnormal serum TSH measurement. International TFT Symposium, Marseille, May 9-10 1985.
38. Nimalasuriya, A., Lin, S.C., Spencer, C.A., and Nicoloff, J.T.: Utility of the serum T3/T4 as an index for detecting diurnal rhythm of T3 in man. Presented at the Endocrine Society meeting, Baltimore, MD., 6/18/85, Abst. #870.
39. Barnes, R., Spencer, C., Lobo, R.: Responses of LH, PRL and TSH to dopaminergic blockade in polycyphus ovary syndrome (PCO); lack of evidence for depressed dopaminergic activity. American Fertility Society, Sept 27 - Oct 2, 1985.
40. Doss, R.C., Green, B.J., Spencer, C.A., and Nicoloff, J.T.: A highly sensitive, non-isotopic assay for human TSH with extended clinical utility. 9th International Thyroid Congress, Sao Paulo, Brazil, Sept 1-6, 1985.
41. Penny, R., Sims, M., Campbell, W., Spencer, C.A., and Nicoloff, J.T.: Cortisol levels in arterial (A) and venous (V) cord blood: Decline with increasing gestational age (GA) or birth weight. Society for Pediatric Research 1986.
42. Spencer, C.A., Eigen, A., LoPresti, J., and Nicoloff, J.T.: Use of a new clinical TSH assay to diagnose clinical and occult hyperthyroidism. Presented at Endoc Soc, Anaheim 1986. Abst #582
43. Garden, G.A., Hannan, C.H., Spencer, C.A., and Plymate, S.R.: The role of non-sex hormone binding globulin bound testosterone (nSHBG - T) on luteinizing hormone (LH) in hyperthyroid men. Clin Res 35: 119A, 1987.
44. Eigen, A., Spencer, C.A., Duda, M., Qualls, S., Weiss, S., Shen, D., Nicoloff, J.T.: Sensitive TSH (S-TSH) measurement: Poor specificity for screening hospitalized patients. Clin Res 35: 130A, 1987.

45. Shen, D., Spencer, C.A., Eigen, A., and Nicoloff, J.T.: The use of TRH and antithyroid microsomal antibody to distinguish thyroid from nonthyroidal illness in hospitalized patients with undetectable TSH by sensitive assay. *Clin Res* 35: 132A, 1987.
46. Gray, D.S., Takahashi, M., Bray, G.A., Fisler, J.S., Spencer, C.A., and Nicoloff, J.T.: Carbohydrate refeeding after fasting increases free fatty acids. *Clin Research*, 35: 107, 1987.
47. Spencer, C.A., Nicoloff, J.T.: Serum TSH heterogeneity revealed by sensitive TSH (S-TSH) immunometric assays. *Clin Res* 36: 128A, 1988.
48. Mizuno, L.Y., Townsend, R.A., Dlott, R.S., Murray, J., Messmer, A., Spencer, C.A., Nicoloff, J.T.: A unique defect in thyroxine (T₄) binding in nonthyroidal illnesses (NTI). *Clin Res* 36: 125A, 1988.
49. Spencer, C.A., and Nicoloff, J.T.: Heterogeneity of circulating TSH in non-thyroidal illness (NTI) revealed by comparison of sensitive TSH (S-TSH) assays. Presented at Endocrine Society, New Orleans, June 10, 1988, Abstract #1029.
50. Spencer, C.A., Patel, A., Guttler, R.B., and Nicoloff, J.T.: Initial application of a highly sensitive chemiluminescent immunometric TSH assay to the evaluation of pituitary-thyroid interrelationships in man. Presented at the American Thyroid Association Meeting, Montreal, 1988. Abstract #T32.
51. Schwarzbein, D., Spencer, C.A., Fink, S., Guttler, R., Shen, D., and Nicoloff, J.T.: Is there clinical utility in TRH tests measured by sensitive TSH (S-TSH) assays. Presented WFCR 2/10/89, *Clin Res* 108A.
52. Schwarzbein, D., Spencer, C.A., Fink, S., Guttler, R., Shen, D., and Nicoloff, J.T.: Is there clinical utility in TRH tests measured by sensitive TSH (S-TSH) assays. American Thyroid Association, San Francisco, 1989.
53. Spencer, C.A., Schwarzbein, D., and Nicoloff, J.T.: The acute and chronic effects of T₃, dexamethasone (DEX) and dopamine (DA) on TSH suppression in man. *Clinical Research*, 38: 100A, 1990.
54. LoPresti, J.S., Sattler, F., Boylen, T., Spencer, C.A., and Nicoloff, J.T.: Serial T₃ measurements predict outcome in pneumocystic carinii pneumonia (PCP). Presented at National Clinical Research Meetings, May 1990.
55. LoPresti, J.S., Spencer, C.A., and Nicoloff, J.T.: Search for a missing deiodinative metabolite of T₄ in fasting man. *Clinical Research* 38: 98A, 1990.
56. Spencer, C.A., Schwarzbein, D., LoPresti, J.S., and Nicoloff, J.T.: Regulated TSH secretion in man. Endocrine Society, Atlanta, 1990.
57. Spencer, C.A., Schwarzbein, D.A., and LoPresti, J.S.: Dynamics of serum TSH responses to thyroid hormone suppression in man. Presented at the 10th International Thyroid Congress, The Hague, Netherlands, February 3-8, 1991, Abstract #255.

59. Nicoloff, J.T., Spencer, C.A., and Schwarzbein, D.A.: Dynamics of serum TSH responses to dopamine and glucocorticoids in man. Presented at the 10th International Thyroid Congress, The Hague, Netherlands. February 3-8, 1991, Abstract #4.
60. Spencer C.A: Application of the ultrasensitive chemiluminescent TSH assay in the diagnosis of thyroid disorders. Clinical Symposium #4. International Thyroid Congress, The Hague, Netherlands, February 8, 1991.
61. Dlott RS, Spencer CA, Brown F, Nimalasuryia A and Nicoloff JT: Characterizing pituitary thyroid hormone resistance syndrome THRS using dynamic TSH suppression. Clin Res 39: 24A, 1991.
62. Dlott, RS, Spencer C.A., Nimalasuryia A, and Nicoloff JT.: Thyroid stimulating hormone (TSH) suppression testing: a new method to evaluate generalized resistance to thyroid hormone (GRTH). Amer Thyroid Assoc, Boston, 1991.
63. Johnson D, Spencer C, Dlott R, and Nicoloff, J.: The tissue source of circulating T3 generated from T4 in man. Clin Res 40: 76, 1992.
64. Johnson D, Spencer C, Takeuchi, M, Dowell M, and Nicoloff JT.: Where does circulating T3 originate in man. Amer Thyroid Assoc, Rochester, MN, Abstract # 152, September 1992.
65. Spencer C, Johnson D and Nicoloff J. Does circulating T3 control serum TSH? Presented at the European Thyroid Association meeting, Cardiff UK. 7/9 1993 Abstract # 123.
66. S Eng, C Spencer, D Johnson, E Lozano and J Nicoloff. Influence of TSH Suppression on Thyroid Gland Function. Abstract # 21 Amer Thyroid Assoc, Tampa, FL, November, 1993.
67. C Spencer, M Takeuchi, M Kazarosyan. Spectrum of interlaboratory functional sensitivity of TSH IMAs. Abstract # 177 Amer Thyroid Assoc. Tampa, FL, November, 1993.
68. C Spencer, CWang, F Baqai, J Nicoloff. The critical role of preoperative serum Thyroglobulin (Tg) measurement in the management of differentiated thyroid cancer. Abstract # 872. Endocrine Society meeting, Anaheim, June 1994.
69. F Baqui, P Conti, P Singer, C Spencer, C Wang, J Nicoloff. 18-F-FDG-PET Scanning - a diagnostic tool for detection of recurrent and metastatic differentiated thyroid cancers. American Thyroid Association. Chicago, September 1994.

70. KL Lindsay, C Spencer, J Nicoloff, S, Milstein, GL Davis, E Schiff, H Bodenheimer, L Balart, J Dienstag, R Perrillo, C Tamburro, G Eversdon, B Sanghyi, J Albrecht. Thyroid Peroxidase Antibody - a potential predictor of IFN-associated thyroid disease. American Association for the Study of Liver Diseases, November 13th. 1994.
71. A Liu, C Spencer, B Saad, J LoPresti, and J Nicoloff. Screening for Thyroid Hormone Resistance (THR) - the T3 Challenge Test (T3CT). *J Invest Med* 43:107A, 1995.
72. IE Hatch, JT Nicoloff, CA Spencer and RA Lobo. The effect of 13-cis Retinoic acid (13-CIS RA) in normal cycling women- an explanation for the diverse endocrine mediated effects of 13-CIS RA. To be presented at Society for Gynecological Investigation 3/95.
73. A Jain, J S Hutchison, A Hoang, D Blad, J J Kiang, C Spencer. Chemiluminescent Immunometric assay of Thyroglobulin in serum. Submitted AAAC meeting July 1995.
74. B. Saad, A, Liu, F. Brucker-Davis, C. Spencer, J. LoPresti, J Nicoloff. Simplified screening test for resistance to thyroid hormone (RTH) - The T3 challenge test (T3CT) Submitted to Endocrine Society Washington DC, June 1995.
75. C.A Spencer, C Wang, RB Guttler, S Fatemi JS LoPresti. Subnormal TSH levels modulate serum Thyroglobulin (Tg) in patients with Differentiated Thyroid Cancers (DTC). International Thyroid Congress. Toronto, September 1995.
76. Beale E, C Spencer, J LoPresti, H Liang, M Takeuchi, MKazarosyn, J Nicoloff. Acute inhibition of serum TSH by near-physiologic level of T3 in man. Submitted to Endocrine Society 1996.
77. The recovery of thyroglobulin (Tg) added to Tg.Ab-positive sera does not authenticate serum Tg immunometric assay (IMA) measurements in differentiated thyroid cancer (DTC). C. Spencer, M. Takeuchi, M. Kazarosyan. ATA San Diego Nov. 1996
78. Evidence for TRH mediation of the rapid TSH response to near-physiologic serum T3 elevations in man. E. Beale, C. Spencer, J. LoPresti, H. Liang, M. Takeuchi, M. Kazarosyan and J. Nicoloff. ATA San Diego Nov. 1996
79. Fatemi S, Nicoloff J, LoPresti J, Spencer C. Use of serum thyroglobulin (Tg) to assess recurrence risk 9RR0 and need for 131-I Rx. of patients with differentiated thyroid cancer (DTC). *J Invest Med* 45:179A,1997.
80. Beale E, Srivastava P, Liang H, LoPresti J, Spencer C, Nicoloff J. Triiodothyroacetic acid (T3AC) - is it an intracellular autocrine acting form of thyroid hormone? Submitted to Endocrine Society, Minneapolis, 1997.
81. Basso. L.V.,¹ Spencer, C.A. Markedly Elevated TSH and Apparent Hook Effect Detected by Immunoassay in a Clinically Normal Patient. Basso, L.V.,¹ Spencer, C.A. Accepted AACC Meeting 8/98

82. S. Fatemi, J. Nicoloff, J. LoPresti, C. Spencer. Cost-effectiveness and safety of Measuring serum Thyroglobulin (Tg) alone in the management of TMN stage I-II differentiated thyroid cancer (DTC). Accepted American Thyroid Association 9/98.

AUDIOS/VIDEOS

- 11/13/87 Telephone Roundtable Discussion released in 1988 by Proclinica for teaching purposes. Topic "Clinical Utility of Sensitive TSH Assays".
- 10/2/1988 CA Spencer. Video "Sensitive TSH Assays". Boston, MA Produced by Ciba Corning.
- 6/12/92 Teaching Video for Physicians. Clinical Utility of 3rd Generation TSH Assays. Sponsored by the Nichols Institute.
- 3/1/93 Forest Pharmaceuticals. Informational roundtable audio tape for primary physicians : "Levothyroxine Replacement Therapy".
Participants: Jerome Hershman, M.D. Michael Kaplan, M.D., Carole Spencer, Ph.D.

PLENARY LECTURES FOR NATIONAL AND INTERNATIONAL SCIENTIFIC SOCIETIES
(Category: U = USC, E = Extramural, V = Visiting Professor, I = Industry)

- 6/24/83 Trends in thyroid function testing, American Association for Clinical Chemistry, 35th National Meeting, New York, New York.
- 9/10/86 Clinical utility of TSH measurement. Clinical Day, American Thyroid Association.
- 4/25/87 National Meeting, Clinical Ligand Assay Society, St. Louis, MO. Topic "Ligand Assays for Free Thyroid Hormones".
- 6/12/87 Endocrine Society, Indianapolis, IN. Symposium on New Concepts in Thyroidology. Topic "Ultra Sensitive TSH Assays: New Techniques and Applications.
- 7/20/87 American Association for Clinical Chemistry, National Meeting, San Francisco, CA, Topic "Role of Sensitive TSH Assays in Thyroid Function Testing".
- 9/19/87 American Thyroid Association, Washington, D.C., Symposium on Assessment of Sensitive TSH assays and their Current Role in Thyroid Function Testing. Topic, "Clinical Utility and Cost Effectiveness of S-TSH in Ambulatory and Hospitalized Patients".
- 7/27/88 American Association for Clinical Chemistry, Industry Sponsored Workshop. Topic "Cost Effective Use of Thyroid Function Tests".
- 5/4/89 Clinical Ligand Assay Society. Topic "Thyroid Profiling".
- 7/23/89 American Association for Clinical Chemistry. "Role of Sensitive TSH Assays in Thyroid Function Testing".
- 11/1/90 8th Annual Meeting. Gateway Clinical Ligand Assay Society. St. Louis, MO, "TSH Measurement - From First to Third Generation".
- 2/8/91E Symposium 10th International Thyroid Congress, The Hague, The Netherlands, Topics:

- "Application of the Ultrasensitive Chemiluminescent TSH Assay in the Diagnosis of Thyroid Disorders".

- "Technical Aspects of TSH measurement".

- "Should Serum TSH be used as the End-Point for Suppression Therapy".

6/26/92E Endocrine Society Symposium, Newer Aspects of Thyroid Testing. Topic: "TSH - The Test of the 1990's".

6/3/94E Norwegian Society for Clinical Chemistry. National Meeting, Tromso, Norway. Topic: New roles for TSH measurement in thyroid testing".

4/23/95E Canadian Society of Clinical Chemists. "Advantages of a 3rd. Generation assay from a clinical perspective". Whistler Vancouver.

7/7/95E 11th. IFCC European Congress of Clinical Chemistry, Tampere, Finland. Topic: "Methodological and clinical performance of third and fourth generation TSH assays".

10/10/95E French Endocrine Society, Lille, France.
 • "Criteres d'evaluation d'un dosage de 3eme generation".
 • Utilisation de la TSH dans les strategies d'exploration de la fonction thyroidienne".

10/26/95E Japan Thyroid Association, Kyoto, Japan. "The sensitive TSH assay in thyroid disease".

11/16/95E Quebec Society of Medical Biochemists.
 • Current status and performance goals of serum thyrotropin (TSH) assays
 • Current status and performance goals of serum Thyroglobulin (Tg) assays

8/14/96 Australinan Association of Clinical Chemistry. Darwin Australia. "The inflence of methodologic improvements on thyroid testing strategies".

INVITED LECTURES/CME CONTRIBUTIONS

8/10/82 AACC Roundtable Discussion, Anaheim, CA. Appropriate thyroid function tests to assess patients with nonthyroidal illnesses.

5/16/85 Comparative clinical value of free T4 estimations using different methodological approaches. Presented at "Clinical Significance and Reliability of Free Thyroid Hormone Estimation". Berlin, W. Germany.

4/25/86 Clinical evaluation of free T4 techniques. Symposium on the evaluation of thyroid function in thyroidal and nonthyroidal disease. Rotterdam, Netherlands.

2/20/87 International symposium on: New set-up of laboratory parameters in thyroid diagnostics, Padua, Italy. Topic "The Clinical Evaluation of Free T4 Techniques".

- 5/15/87 USC Laboratory Medicine and Pathology Grand Rounds. Topic "Which Thyroid Function Tests are Important for the Diagnosis and Treatment of Thyroid Diseases"?
- 6/23/87 USC Endocrine Rounds. Topic "New Developments in Thyroid Function Testing".
- 10/20/87 Cedars Sinai Hospital, Los Angeles, CA. Endocrine Grand Rounds. Topic "Clinical Utility and Limitations of Sensitive TSH Assays".
- 12/12/87 USC Endocrine Section, Bley Stein Visiting Professorship Conference, Newport Beach, CA. Topic "Serum TSH Heterogeneity in Nonthyroidal Illness".
- 1/23/88 Marriott Hotel, Torrance, CA. Invited speaker at Southern California Edison Corporation Medical Review. Topic "Clinical Utility and Cost Effectiveness of Sensitive TSH Measurement".
- 2/16/88 American Association of Clinical Chemistry, Local Meeting, Good Samaritan Hospital, Los Angeles, CA. Topic "Clinical Utility and Cost Effectiveness of Sensitive TSH Measurement".
- 2/23/88 USC Endocrine Rounds. Topic "Use of Thyroglobulin Measurement in Assessing Patients with Thyroid Cancer".
- 3/30-4/1/88 Ohio State University, Columbus, Ohio. Visiting Professor. Topic for Grand Rounds, "Clinical Utility Limitations in Cost Effectiveness of TSH Measurement".
Research Seminar, "Clinical utility of serum Thyroglobulin measurement".
- 5/11/88 11th Annual Thyroid Symposium, Good Samaritan Hospital, Los Angeles, CA. Topic "Clinical Utility, Limitations and Cost Effectiveness of TSH Measurement".
- 6/25/88 USC Department of Medicine, Updates in Medicine, 1988: A series of Minisymposia. Topic "Sensitive TSH for Assessment of Thyroid Status".
- 1/20/89 Division of Endocrinology, University of British Columbia/University of Washington Speaker at "Endocrine Days" Conference. Topics: "1989 Strategy for Cost Effective Use of Thyroid Function Tests" and "The Clinical Utility of Thyroglobulin Measurements".
- 1/24/89 USC Endocrine Rounds "Clinical Utility of Serum Thyroglobulin Measurements"
- 3/7/89 St. Johns Regional Medical Center, Oxnard, CA "Clinical Utility of the Sensitive TSH Test".
- 5/13/89 Providence Hospital. Seattle, WA., Selected topics in Endocrinology Conference "Cost Effective Thyroid Function Testing".
- 5/16/89 Endocrine Grand Rounds, USC, "Thyroid Function Testing for the 1990's".
- 7/16/89 Research Seminar, Department of Molecular Endocrinology, Middlesex Hospital, London, U.K., "Why do we need more sensitive TSH assays?"
- 9/5/89 BioRad Inc., San Francisco, "Sensitive TSH Assays".

- 10/4/89 Endocrine Conference, UCLA. "Clinical Utility of Sensitive TSH Assays".
- 12/9/89 Bley Stein Visiting Professor, Department of Endocrinology, USC, "Clinical Aspects of TSH Suppression".
- 2/19/90 Morton Plant Hospital, Clearwater Florida Intermediate Level Workshop "Laboratory Evaluation of Thyroid Function".
- 2/20/90 Morton Plant Hospital, Clearwater Florida Advanced Level Workshop "Problems and New Advances in Thyroid Function Testing".
- 2/21/90 South Florida Endocrine Association, Invited Speaker, " Thyroid Function Testing in the 1990's".
- 2/22/90 Clinical Uses of Thyroglobulin Measurement. Endocrine Grand Rounds, University of Miami.
- 2/27/90 Cedars-Sinai Medical Center, Endocrine Grand Rounds " Clinical Uses for Sensitive TSH Assays".
- 3/13/90 Medical Grand Rounds. King-Drew Medical Center, Los Angeles. "Thyroid Function Testing in the 1990's".
- 4/5/90 Nichols Institute - "Clinical Utility of 3rd Generation TSH assays".
- 4/24/90 USC Endocrine Rounds - Thyroid Function Testing for the 1990's.
- 5/16/90 Visiting Professor, Johns Hopkins University. Grand Rounds topic: "Clinical Potential of Sensitive TSH Assays".
- 5/16/90 Johns Hopkins University. research seminar "Clinical Aspects of Thyroglobulin Measurements in Patients with Thyroid Cancer".
- 10/9/90 Endocrine Research Conference - Cedars-Sinai "Application of 3rd Generation TSH assays".
- 3/11/91 USC Endocrine Grand Rounds, "Thyroid Testing in the 90's: So Many Tests, So Little Money".
- 4/10/91 Endocrine Research Conference, City of Hope, "Is Serum TSH the Optimal End-Point for Suppression Therapy for Thyroid Cancer".
- 4/30/91 Department of Internal Medicine, Kaiser Permanente Medical Center, West Los Angeles, "Clinical Application of 3rd Generation TSH Technology".
- 5/22/91 14th Annual Clinical Thyroid Symposium, Good Samaritan Hospital, Los Angeles, "The TSH is The Most Sensitive Screen of Thyroid Function".
- 6/21/91 Endocrine Society: Industry sponsored workshop. "Chemiluminescence and its Creation of a New Generation of Sensitive Assays". Atlanta, GA.

- 10/02/91 American Association of Clinical Chemistry, Workshop, Kansas City. " Sensitive TSH assays".
- 10/16/91 30th Annual Medical Staff Seminar, Halifax-South Boston Community Hospital, "Cost-Effective Thyroid Testing for the 1990's".
- 10/17/91 "Clinichem '91". Hospital of the University of Pennsylvania, "Diagnostic Role of TSH Tests".
- 2/07/92 Amersham International, Amersham Berks, U.K. "Thyroid Testing for the 1990's".
- 3/28/92 Indianapolis AAAC Conference "How Useful is the 3rd Generation TSH Assay?"
- 4/04/92 California Association of Medical Laboratory Technologists. Spring Symposium, Methodist Hospital, Arcadia. "Thyroid Testing for the 1990's".
- 4/07/92 Endocrine Grand Rounds, Cedars Sinai, Los Angeles "3rd Generation TSH Technology".
- 4/24/92 California Society for Medical Technology, Annual Meeting, Newport Beach, CA. C.A. Spencer and J. Nelson, "Thyroid Revisited".
- 4/28/92 USC Endocrine Rounds, Department of Medicine. "New Strategies for Thyroid Testing".
- 4/29/92 Family Practice, Martin Luther King Drew Medical Center, "Common Thyroid Disorders and Assay Tests to Detect Them".
- 4/30/92 Grand Rounds, Sepulveda VA Medical Center, "Thyroid Testing for the 1990's".
- 5/05/92 Abbott Days: "Thyroid Testing Strategies with Emphasis on Ultra Sensitive TSH and Free T₄".
- 5/07/92 American Association of Clinical Chemistry, Mayo Clinic, Rochester, MN. "Clinical Utility of 3rd Generation TSH Assays".
- 7/22/92 Stanford University Medical Center Endocrine Grand Rounds "Thyroid Disease in Pregnancy".
- 9/30/92 Presentation to Nichols Institute International Marketing Managers "Clinical Utility of 3rd Generation TSH Assays"
- 10/19-23/92 Five day lecture series for Kodak Clinical Diagnostics, London, Cardiff, Birmingham, Leeds and Glasgow, UK "Clinical Utility of 3rd Generation TSH Assays"
- 10/28/92 Duke University Grand Rounds "Clinical Utility of 3rd Generation TSH Assays"
- 11/18/92 Abbott Days, St. Louis, MO. "Trends in Thyroid Testing".
- 11/24/92 Medical Grand Rounds, Mercy Hospital, San Diego: "Uses of TSH Testing in the Diagnosis of Thyroid Disease".
- 1/13/93LE Department of Internal Medicine, Martin Luther King-Drew Medical Center "Interpretation of Thyroid Tests".

- 1/28/93 Nichols Institute Marketing Managers "Clinical Utility of 3rd Generation TSH Assays".
- 2/18/93 Goteborg, Sweden. Conference "New aspects of thyroid disease and function testing". Topic: Third Generation TSH Testing.
- 2/24/93 Abbott Days " Trends in Thyroid Testing". Universal City, Ca.
- 5/3/93 Visiting speaker to Abbott Laboratories, Chicago IL. "Thyroid function tests in the 1990s.
- 5/7/93 Endocrine Department meeting, Scripps Clinic and Research Foundation. La Jolla, Ca. "Clinical Utility of 3rd. Generation TSH Assays".
- 5/15/93 Rush-Presbyterian-St. Luke's Medical Center, Chicago. Conference: Management of Thyroid Disease in Childhood. Topic: Thyroid Testing: The 3rd. Generation TSH Assay.
- 5/19/93 UCLA Combined Endocrine Conference. "New Strategies for the use of TSH Measurement".
- 5/26/93 USC Symposium, Biltmore Hotel, Los Angeles. "Thyroid function tests in the 1990's: Has technology outpaced clinical application?"
- 7/29/93 Research Seminar Specialty Labs. Santa Monica. Topic "Optimizing immunometric assays. Lessons learned with TSH".
- 9/8/93LE Internal Medicine Grand Rounds, St. Mary Medical Center, Long Beach. "New strategies for TSH and thyroid testing".
- 10/6/93 International Workshop, "Recent advances in thyroid diagnostics: in vitro testing, methodological and clinical aspects". Topic, "Further developments in TSH technology". Heidelberg, Germany.
- 11/9/93 American Thyroid Association, Tampa, FL. "Meet the Professor". Sensitive and Ultrasensitive TSH Assays.
- 12/3/93 Endocrine Grand Rounds, Wadsworth VA Westwood, LA. New uses for Clinical TSH methods.
- 12/8/93 Endocrine Grand Rounds, U. C. San Diego. " Serum TSH Testing".
- 1/11/94 Endocrine Grand Rounds, St. Johns Medical Center, Oxnard, Ca. " Cost Effective thyroid testing for the 1990's".
- 1/29/94 USC Methods of Clinical Investigation Course. "Laboratory methods for Clinical Research".
- 2/16/94 OB/GYN Conference, Long Beach Community Hospital. "Thyroid Disease in Pregnancy".
- 3/1/94 Endocrine Grand Rounds, Cedars Sinai Medical Centre. New uses for Clinical TSH methods.
- 3/17/94 Diagnostic Products Inc. international marketing managers meeting. Topic: "3rd. Generation TSH assays".

- 3/26/94 CME Program St. Paul Medical Center Dallas, Texas. "Endocrinology and Diabetes for the Primary Care Physician". Topic: Thyroid testing strategies for the practicing physician.
- 4/5/94 USC Endocrine Grand Rounds, Department of Medicine. Topic: "What every endocrinologist should know about TSH measurement!"
- 4/11/94 USC Continuing Education Program, Dept. of Pathology. Topic: "Optimizing immunometric assays. Lessons learned with TSH".
- 4/22/94 USC Fellows Core Curriculum Lecture Series. " Thyroid physiology and Pathology".
- 5/9/94 Toronto General Hospital " Advantages of 3rd. Generation TSH assays from a Laboratory and Clinical Standpoint".
- 5/23-5/27 European lecture series: London(5/23/94), Amsterdam (5/24/94), Frankfurt (5/25/94, Lisbon (5/27/94), Genoa (5/30/94). "Advantages of 3rd. Generation TSH assays from a Laboratory and Clinical Standpoint".
- 5/31/94 Copenhagen, Denmark. "New Roles for TSH measurement".
- 6/15/94 Endocrine Grand rounds Hurler Memorial Hospital, Pasadena, Ca. " TSH in Clinical Practice".
- 6/24/94 Grand Rounds Santa Cruz Hospital. Topic: Thyroid disorders.
- 7/6/94 Grand Rounds Southwestern Medical Center, Dallas Texas. Topic: New uses of TSH measurement.
- 7/19/94 Symposium, AAAC, New Orleans. Topic " Why should laboratories switch to 3rd. Generation TSH assays?"
- 9/14/94 Endocrine Grand Rounds University of California , San Francisco. New Advances in Clinical Applications of TSH measurement.
- 11/9/94 Endocrine Rounds City of Hope Hospital, Duarte, CA. Topic: Use of Thyroglobulin in monitoring patients with differentiated thyroid cancer.
- 11/18/94 Feldkirch, Austria. Austrian Society of Nuclear Medicine. Symposium on the follow-up of differentiated thyroid carcinoma. Topic: " The need for suppressive thyroid hormone therapy in thyroid cancer patients".
- 12/5-9/94 European lecture series: Amsterdam (12/5/94); Leipzig (12/7/94); Paris (12/9/94). "Advantages of 3rd. Generation TSH assays from a Laboratory and Clinical Standpoint".
- 1/30/95 USC Methods of Clinical Investigation Course. "Laboratory methods for Clinical Research".

- 3/4/95 Lecture/workshop for Osteopathic Physicians and Surgeons of California Convention. "Thyroid Testing". Anaheim, CA.
- 3/7/95 Endocrine Conference Long Beach V.A Medical Center. "New Research on and clinical applications of TSH suppression studies."
- 5/24/95(VP) Clinical Ligand Assay Society. Workshop "Advantages of a 3rd. Generation assay from a clinical perspective. Toronto Hospital, Canada.
- 7/15/95(VP) National Academy of Clinical Biochemistry. Standards of Practice Conference on Clinical and Methodological Aspects of Thyroid Disease. Topics:
 • TSH
 • Thyroglobulin
- 9/19/95(VP) Cedars Sinai Endocrine Grand Rounds. " The Utility of Ultrasensitive TSH assays in the Management of Thyroid Cancer".
- 10/30/95(U) USC Methods of Clinical Investigation Course. "Laboratory methods for Clinical Research".
- 11/22/95(U) USC Endocrine Grand Rounds. "Clinical Utility of Serum Thyroglobulin measurements for monitoring patients with differentiated thyroid carcinoma."
- 11/22/95(VP) Clinical Ligand Assay Society. Costa Mesa. "Clinical Utility of Serum Thyroglobulin measurements for monitoring patients with differentiated thyroid carcinoma."
- 12/11/95(I) Ciba Corning Diagnostics. Walpole Boston. "Clinical utility of 3rd. generation TSH methods".
- 1/24/96(VP) Bay Area Women Endocrinologists. San Francisco. "Thyroid and Pregnancy".
- 3/6/96(VP) Endocrine Grand Rounds San Diego VA. "Use of Thyroglobulin measurements in the management of patients with differentiated thyroid cancers".
- 3/13/96(VP) Endocrine Grand Rounds City of Hope, Duarte. "Use of Thyroglobulin measurements in the management of patients with differentiated thyroid cancers".
- 4/26/96(I) Boehringer Mannheim, Indiana. "Clinical utility of 3rd. generation TSH methods".
- 4/26/96(VP) Consortium of Laboratory Professionals, Indianapolis. "Clinical utility of 3rd. generation TSH methods".
- 9/11/96(U) USC Core Curriculum Lecture. "Thyroid Physiology and Testing".
- 1/24/97 (V) NIH Bethesda Maryland. "Current Status of TSH Testing".
- 4/7/97 (I) Knoll Pharmaceuticals. Dallas TX. Thyroid Update
- 4/22/97 (I) Boehringer Mannheim, Munich Germany. "Advantages of Sensitive TSH tests.

- 4/24/97 (I) Boehringer Mannheim, Pisa Italy. "Advantages of Sensitive TSH tests.
- 5/10/97 (U) Thyroid '97. Other Serilogic markers - Thyroid Autoantibodies.
- 5/20/97 (V) David Segal Lectureship. Mount Sinai Medical Center, New York. Topic: Sensitive tests for the detection of TSH and Thyroglobulin.
- 7/16/97 (V) Huntington Memorial Hospital. Endocrine Rounds. Clinical Utility of Serum TSH Measurement.
- 7/22/97 (V) AAAC Roundtable. Atlanta GA. Specifications for TSH Assay Sensitivity.
- 9/16/97 (V) AAAC Southern California Chapter. Advances in Thyroid Testing.
- 9/24/97 (U) GCRC Naming Conference "Three Decades of TSH Measurement".
- 9/30/97 (U) USC Endocrine Grand Rounds. " Clinical uses of Thyroglobulin Measurement".
- 10/19 97 (E) American Thyroid Association Meeting. Symposium. "Thyroid Testing in the Elderly".
- 11/16/97 (V) City of Hope. Endocrine Conference. " Use of Thyroglobulin (Tg) Measurement in the Management of DTC".
- 12/2/97 (I) Boehringer-Mannheim, Indianapolis. "Update on Future of Thyroid Testing".
- 1/19/98 (I) Abbott Laboratories. "Current Status and Future Trends in Thyroid Testing".
- 3/7/98 (E) AACE/ATA Thyroid Workshop. San Francisco. "Office-based TSH testing".
- 4/15/98 (E) EQAS/ELAS'98 Meeting. Edinburgh, Scotland. U.K. "Thyroglobulin (Tg) Assays - Progress and Problems".
- 5/7/98 (E) CLAS Awards lecture "Three decades of TSH Measurement".
- 6/9/98 (E) Cedars Sinai Endocrine Grand Rounds: "Thyroglobulin (Tg) Assays - Progress and Problems".
- 8/1/98 (E) Clinical Diagnostics Division AACC Symposium on Diagnostic Pathways and Outcomes. Topic: "Thyroid Diseases".
- 8/3/98 (E) AACC Annual Meeting mini workshop "Ultrasensitive TSH"

(Category: U=USC, E=Extramural, V=Visiting Professor, I= Other (for industry))