

Curriculum Vitae
DAVID L. FELTEN

Date of Birth: 2/27/48

Citizenship: U.S.

Present Position

Vice President, Research
Medical Director, Beaumont Research Institute
William Beaumont Hospitals
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Education

Massachusetts Institute of Technology	Biology, Humanities	B.S.	1969
University of Pennsylvania	Medicine	M.D.	1973
University of Pennsylvania	Anatomy	Ph.D.	1974

Honors and Awards

Training Awards:

M.I.T. National Alumni Scholarship, 1965-1969.

N.I.H. Medical Scientist Training Program Fellowship, University of Pennsylvania, 1969-1974.

Research Awards:

Alfred P. Sloan Foundation Fellowship, Nov. 1978 - Nov. 1980.

John D. and Catherine T. MacArthur Foundation Prize Fellowship, Feb. 1983 - Feb. 1988.

Andrew W. Mellon Foundation Fellowship, July, 1985-June, 1988.

N.I.H. MERIT Award - National Institute on Aging, Aug. 1986 - Aug. 1996.

N.I.H. MERIT Award – National Institutes of Mental Health, April 1989 - April 1999.

Pfizer Visiting Professorship, Department of Psychiatry, UC San Diego School of Medicine, 14-18 January 1991.

Nominee for Albert Lasker Medical Research Award, 1994, 1995.

Norman Cousins Award in Mind-Body Health, John E. Fetzer Institute, 1995.

Wellcome Visiting Professorship, Loyola University, Chicago, IL, 4-6 Nov 1996.

“Building Bridges of Integration” Award, Traditional Chinese Medicine World Foundation, October 2007.

Teaching Awards:

Outstanding Basic Sciences Teaching Award, Indiana University School of Medicine, (7 consecutive years) 1977-1983.

Herbert W. Mapstone Prize for Excellence in Teaching, University of Rochester School of Medicine, 1984, 1985.

National Teaching Award in Neurosciences, New Jersey Medical School, 1989.

Robert Wood Johnson Dean’s Senior Teaching Scholar, University of Rochester School of Medicine, 1993-1995.

Faculty Appointments

Indiana Univ. School of Medicine	Assistant Prof. of Anatomy	2/74-7/77
Indiana Univ. School of Medicine	Associate Prof. of Anatomy	7/77-6/82
Indiana Univ. School of Medicine	Assoc. Prof. of Psychiatry (joint appointment)	1/79-6/82
Indiana Univ. School of Medicine	Professor of Anatomy and Neurobiology, Psychiatry	7/82-6/83
University of Rochester School of Medicine and Dentistry	Professor of Neurobiology and Anatomy, and Professor of Psychiatry	6/83-6/95
	Director, Markey Charitable Trust Neurobiology Institute	7/92-12/97
University of Rochester School of Medicine and Dentistry	Kilian J. and Caroline F. Schmitt Professor and Chair	7/95-12/97
Loma Linda University School of Medicine	Professor of Pathology and Professor of Neurology Director, Center for Neuroimmunology	1/98-7/01
UC Irvine College of Medicine	Executive Director, Susan Samuelli Center for Integrative Medicine Professor of Anatomy & Neurobiology	7/01- 8/03
Seton Hall University	Dean, School of Graduate Medical Education	9/03 – 9/05

Membership in Professional Organizations

American Association of Anatomists, 1974-present
 American Association for the Advancement of Science, 1975-present
 Society for Neuroscience, 1975-present; Education Committee, 1989-1992.
 New York Academy of Science, 1979-present
 FASEB Second Conference on Neuroimmunology, Organizing Committee, 1989-present
 International Symposium on Neuronal Control of Bodily Function: Basic and Clinical Aspects, External Advisory
 Committee, 1984-1990.
 Psychoneuroimmunology Research Society, 1993-present; Executive Council, 1993-1998.
 Traditional Chinese Medicine World Foundation, Member of Planning Committee, 2003-present.
 New Jersey Council of Teaching Hospitals, Academic Affairs Council, 2004-2005.

Educational Contributions

Medical Neural Sciences Course, University of Rochester, 1983-1997: Course director, 130 hours of lecture and
 laboratory teaching per year. Loma Linda University, 1998-1999, 30 hours of lecture, 40 hours of clinical
 sessions and laboratory. UC Irvine, 2001-2002, 15 hours of lecture, laboratory, and clinical correlation
 Graduate Teaching, University of Rochester: Courses on Spinal Cord and Cerebellum, Neuroanatomy, Peripheral
 Nervous System, Psychoneuroimmunology; Reading Courses in Neuroanatomy and Neurophysiology of motor
 and autonomic systems, Neural-Immune Interactions; Loma Linda University: Graduate Course on Integrative

Medicine; UC Irvine: Lectures in Graduate Systems Neurosciences course; Seton Hall Univ.: Lectures in graduate neuroscience course, continuing education seminars.
Grand Rounds and Clinical Teaching, University of Rochester, Loma Linda University, Seton Hall University
Affiliated Hospitals: 20-25 hours of lecture per year
St. George's University School of Medicine, Grenada, West Indies: 10-20 hours of lecture and clinical presentation per year, 1984-1993, continuing education presentations, 2004.
CorText Mind/Matters, Sunnyvale, CA: Continuing Education Seminars (all day) on Successful Aging, and Integrative Medicine, 12-15/year, 2001- 2003; Sumavera LLC Continuing Education Seminars, 3-5/yr, 2004.
University of California, Irvine, Extension Courses: (1) Integrative Medicine; (2) Aging With Grace and Style; (3) Women's Health Issues. Spring Semester 2002, Fall Semester 2002.
Seton Hall University School of Graduate Medical Education: Medical Neurosciences, Spring Semesters, 2004, 2005.

Past Graduate Students

- James A. Weyhenmeyer, Ph.D. 1977 The effects of cyclophosphamide and thymopietin on the cell-mediated immune response in the guinea pig (co-advisor).
- John P. Cummings, Ph.D. 1978 Development of the medullary raphe nuclei of the rabbit: A midline dendrite bundle.
- James T. Patrick, Ph.D. 1981 The quantitative distribution of four putative amine acid neurotransmitters in the spinal cord of normal and diabetic rats.
- Steven A. Moore, M.D., Ph.D. 1981 Experimental diabetic neuropathy: A quantitative study of conduction velocity changes and morphological abnormalities in the peripheral nerves of streptozotocin diabetic, alloxan diabetic, and age-matched control rats. (co-advisor)
- John M. Williams, Ph.D. 1981 Sympathetic innervation of murine thymus and spleen: Morphological and functional alterations following chemical sympathectomy.
- Sonia L. Carlson, Ph.D. 1987 Effects of immune responses on central and peripheral monoaminergic systems.
- Kurt D. Ackerman, M.D., Ph.D. 1989 Noradrenergic sympathetic neurotransmission in the adult and neonatal rat spleen.
- Tracy A. Romano, Ph.D. 1993 Neural-immune interactions in the Beluga, *Delphinapterus Leucas*
- Sheila D. Kelley, M.D., Ph.D. 1999 Neuroimmune interactions in murine AIDS.
- Meryl Picard (Seton Hall Univ.) Current 2006-present Integrative interventions for breast cancer-related fatigue.

Postdoctoral Fellows

- Bruce T. Burnett, M.D., 1981
- Michael A. Rea, Ph.D., 1981-2 (co-advisor with M.H. Aprison)
- Leslie R. Rubin, Ph.D., 1982-3
- Madhu Gupta, Ph.D., 1985-1987
- Denise Lorton Bellinger, Ph.D., 1984-1988 (Scientist 1990-1993)
- Dianne Lorton, Ph.D., 1987-1990.
- Isao Date, M.D., 1988-1990.
- Steve Lamberti, M.D., 1988-1991.
- Yugi Gohda, M.D., 1990-1992. (with Dr. Suzanne Haber)
- Kelley S. Madden, Ph.D., 1990-1992. (Research Asst. Prof., 1992-present)
- JoAnne Miller-Gorman, Ph.D., 1991-1992.
- Kathy Steece-Collier, Ph.D., 1991-1992 (Scientist 1992-1993)
- Clemens Kirschbaum, Ph.D., 1992-1993.
- Angelica Kirschbaum, Ph.D., 1992-1993.
- Nancy Costello, Ph.D., 1991-1992.
- Sheila Kelley, M.D., 1992-1999.
- S. Thyagarajan, Ph.D., 1993-1996. (Research Asst. Prof., 1996-1999)
- Barbara Kruszewska, Ph.D., 1996-1997 (Research Asst. Prof., 1997-1998)

Editorial Assignments for Journals

Editorial Positions:

Brain, Behavior and Immunity (Associate Editor), 1987-2000, editorial board, 2000-present.
 Brain Research Bulletin (Editorial Board), 1979-1998.
 Progress in NeuroEndocrinImmunity (PNEI) (Editorial Board), 1987-1990.
 Neurodegeneration (Editorial Board), 1991-1996.
 Neuroimmunomodulation (Editorial Board), 1996-2006.

Manuscript Review for Journals

Anatomical Record
 Journal of Comparative Neurology
 Archives of Neurology
 Science
 Journal of Histochemistry and Cytochemistry
 Life Sciences
 Pharmacology Biochemistry and Behavior
 Neurobiology of Aging
 Journal of Neuroimmunology
 Journal of Immunology
 Neuroimmunomodulation
 Brain Research

Membership and Participation in National Advisory Research Review Committees

N.I.H. Behavioral and Neurosciences Study Section: Subcommittee 1, Jan 1984 - July 1988.
 N.I.H. Neurological Sciences Study Section (NINCDS), Mar 1984 - 1988; ad hoc reviewer
 N.I.H. Neurology C Study Section (NINCDS), Nov 1984 - 1988; ad hoc reviewer
 N.I.M.H. AIDS Study Section (MHAZ), 6/89 - 11/92; Ad hoc, 11/92-present
 N.I.H. AIDS and Related Research Study Section, 3/90 - ad hoc reviewer
 N.I.A.I.D. - Special Review Committee, Asthma and Allergic and Immunologic Disease Cooperative Research Centers, 2/93.
 N.S.F.: Ad hoc reviews for Neurosciences
 Canadian Research Council: Ad hoc reviews
 National Research Council, Review Panelist, Aug 1989 - 1991.
 National Academy of Sciences, Institute of Medicine, Division of Behavioral Sciences and Mental Disorders, and Division of Health Science Policy, Panel on Health Effects of Emotion and Stress, 1991.
 N.I.M.H. Intramural Review Committee, 1991.
 N.I.A.I.D. Task Force, 1997-1998.
 N.I.A.M.S. Special Emphasis Panel Review on Fibromyalgia, 1-2 Dec 1998.
 N.I.H.L.B. Respiratory and Applied Physiology Study Section, 6-7 March 2000.
 N.C.I. Basic Biobehavioral Research Branch, Biological Mechanisms of Psychosocial Effects on Disease, Feb 28 -Mar 1, 2002.
 NCCAM Review Panel on Research Centers, 18-19 June 2002.
 NCCAM Special Emphasis Panel on Basic Sciences, March, 2003; June, 2003.
 NCCAM Review Panel on Program Projects, July, 2003.
 NCI Task Force on Incorporating Complementary Medicine with Cancer Therapy, Nov, 2004.

Consulting

National Board of Medical Examiners, FLEX Basic Sciences Committee, 1986-1990. Chairman of Neurosciences Task Force, Step 1, 1994-2000. IDC (Interdisciplinary Committee), 1998-present.
 University of Kentucky, 16 March 1987, Site visit for distribution of bond money for upgrading ultrastructural facilities at the University of Kentucky. Invited by Vice-Chancellor Royster.

Lilly Research Laboratories Cardiovascular Task Force, 16-17 July 1987, Consultant for innovation session
 Volkswagon Foundation, Hanover, W. Germany, 7-8 January 1988.
 Fund For Psychoneuroimmunology, Los Angeles, CA, Scientific Advisory Board, 1992-1999
 NIMH Intramural Program, Clinical Neuroendocrinology Branch (Drs. Philip Gold, Esther Sternberg), Bethesda,
 MD., 1994-1995.
 Rejuvon Corp. Emeryville, CA, 1993-1994.
 The Samueli Institute, Scientific Advisory Committee, Corona del Mar, CA, 2001-2006.
 F.F. Thompson Medical Center, Canandaigua, NY, Advisor to Sands Cancer Center for Integrative Medicine
 Program, 1999-2001.
 Center for the Advancement of Health, Wash. D.C., Task Force on the Social and Emotional Competence of
 Children, 2002.
 Sumavera Medical Innovations, LLC, Director, Scientific and Medical Advisory Board, June 2000- 2005.
 Australian Cancer Technology, Scientific and Medical Advisory Board, Director (Sept. 2003- Sept. 2004; Deputy
 Director (U.S.) (Sept. 2004-2005).
 ACT (USA), INC., Director, Scientific and Medical Advisory Board, Sept. 2003 – Jan. 2006.
 The Medingen Group, LLC, Director, Scientific and Medical Advisory Board, June 2005 – present.
 Integrative Oncology Foundation, Greenwich, CN, Head of Scientific and Medical Advisory Board, Jan. 2004 –
 present.
 New Jersey Arthritis Foundation, Consultation for a business plan to establish an Institute without walls for
 promoting arthritis education and research in New Jersey. March 2004 – Sept. 2005.
 Mich Bio, Board of Directors, April 2007 – present.

Current Beaumont Committee Responsibilities

Beaumont Leadership Council
 Chair of Outcomes Research Task Force, 2007
 Medical Executive Committee
 Beaumont Physician Leadership Academy
 Performance Excellence Forum
 Biosafety Committee
 Business Ethics and Corporate Compliance Committee
 Animal Care Committee
 Human Investigation Committee (IRB)
 Internal Medicine Chair Search Committee
 Surgical Services Chair Search Committee
 Radiation Safety Committee
 Research Institute Administrative Task Force
 Research Institute Board of Governors
 Beaumont Foundation Board of Governors
 Research Institute Compliance Committee
 Research Institute Conflict of Interest Committee

Committee Activities with Regional Institutions

Southeast Michigan Committee for Medical Education (SEMCME)
 SEMCME Research Subcommittee
 Lawrence Technological University, Southfield, MI, Biomedical Engineering and Life Sciences Advisory Board

Regional Awards

Oakland County Emerging Sectors Program Award for Assisting Emerging Sectors business recruitment in
 Sweden for Swedish-American Entrepreneurial Program, August, 2006.
 Oakland Business Review, MI, Innovation Michigan Award for Top 20 Innovative Michigan Companies,
 awarded to Beaumont Research Institute, David Felten, Medical Director.

Past Recent Grant Support

N.I.H. Grant R37 AG06060, MERIT Award, MPTP: Degeneration of monoamine systems, and aging, P.I. (20% effort), 8/1/86 - 7/31/91(first phase), \$470,061 TDC; 8/1/91 - 7/31/97 (second phase), \$524,801 TDC.

Lucille P. Markey Charitable Trust Award, University of Rochester Neurobiology Institute, Neural Degeneration and Aging: Neurobiology and Therapeutics. 3/15/91 - 12/31/97. P.I. (10% effort). \$5,000,000 TDC.

Eli Lilly Research Laboratories Project, Pergolide Aging Studies. 1/20/92 - 1/19/97. P.I. (5% effort). \$228,585 TDC.

N.I.M.H. Training Grant T32 MH18822, Postdoctoral research training in psychoneuroimmunology. 7/1/87-6/30/97. Co-Director (R. Ader, Program Director) \$675,672 TDC. Renewed for 7/1/92-6/30/97, \$1,171,913 TDC.

N.I.A. Program Grant P01 AG11585, Stress, Aging & Neuroendocrine-Immune Changes, 7/1/94-6/30/97. P.I. on Subcontract (with Dr. John Sheridan), (10% effort), \$80,851 01 year. (Dr. Ronald Glaser, Ohio State University, P.I. of entire P01).

Somerset Pharmaceuticals, Inc., Desmethylselegiline in an in vivo model of neuronal degeneration and altered immune responses. 9/15/95 - 6/30/98. P.I. (10% effort). \$224,000 TCD.

N.S.F. Grant DCB-9105791, Neural-immune interactions in the beluga whale. 8/1/91 - 1/31/94. P.I. (5% effort). \$111,698 TDC. Renewal, 4/1/94 - 9/31/98, \$321,000 TDC.

N.I.M.H. Grant R37 MH42076, MERIT Award, P.I. (40% effort) Sympathetic innervation and immune regulation, 4/1/89 - 3/31/94 (first phase, years 04-08), \$860,012 TDC; 4/1/94 - 3/31/00 (second phase, years 09-13), \$937,701 TDC.

U.S. Army Medical Research and Materiel Command Breast Cancer Research Program, Grant RP951156, Deprenyl and protection against mammary tumors. 2/1/96 - 7/31/00. P.I. (20% effort). \$761,152 TC.

N.S.F. Grant DCB, Bone Marrow Tissue Engineering for Ex Vivo Hemopoiesis/Lymphopoiesis and Neural Modulation. 2/1/99 - 1/31/03. Co-P.I. (David Wu, P.I.), 10% effort. \$683,415 TDC.

O.N.R. Grant N000014-00-1-0041, Investigation of immune competence in navy marine mammals: implications for health, viability, and mission readiness. Tracy Romano, P.I., David Felten, co-investigator (10%), 10/01/99 – 09/30/05. \$1,003,265 TDC.

NIH R21 CA098794, Psychoneuroimmunology and Cervical Cancer, 6/1/03 – 5/31/05. Lari Wenzel, P.I., David Felten, co-Investigator (10%), \$300,000 TDC.

NSF 0321124, Confocal microscopy for interdisciplinary program at Seton Hall University (SHU), 9/1/04 – 8/31/06, Sulie Chang, P.I., David Felten, co-P.I., \$350,000 TDC.

Current Grants

NIH, Clinical Translational Science Award, Planning Grant, Wayne State University (Lead Institution), William Beaumont Hospital Consortium Clinical Research Partner (David Felten, Director), 11/01/06 – 10/31/08, \$750,000 TDC.

Presentations at Professional Meetings and Invited Seminars Since 1983

- International Symposium on Autonomic Regulation of Immune Responses, Lexington, KY, April 1983. Invited presentation: Autonomic innervation of lymphoid tissue.
- International Symposium on Autonomic Nervous System and Psychosomatic Medicine, Indianapolis, IN, Nov. 1983. Invited presentation: Interactions between the nervous and immune systems.
- American Academy of Neurology Meeting, Boston, MA, April 9-14, 1984. Invited lecture: Autonomic innervation of lymphoid tissue: A non-traditional role for noradrenergic sympathetic fibers. Invited lecture: Organization of central monoamine systems.
- Peripheral Neuropathy Association of America Meeting on Diabetic Neuropathy, Keystone, CO, June 18-22, 1984. Invited presentation: Noradrenergic sympathetic innervation of the splenic parenchyma increases in chemically-induced diabetes in the rat.
- MacArthur Foundation Workshop on Psychoneuroimmunology, Tuxedo, NY, April 23-26, 1984. Invited presentation: Anatomical connections of the autonomic nervous system to lymphoid tissue.
- American Society for Pharmacology and Experimental Therapeutics (ASPET) Meeting, Indianapolis, IN, Aug. 19-23, 1984. Symposium chairman: Interaction between the nervous and immune systems. Invited presentation: Evidence for communication between the nervous and immune systems in both directions. Invited presentation: Peripheral innervation of lymphoid tissue.
- Ninth International Symposium on Neurosecretion, Fuji Kyoiku Kenshujo, JAPAN, Sept. 3-8, 1984. Chairman of scientific session: Interaction and coexistence of amines and neuropeptides. Invited presentation: Anatomy and physiology of the noradrenergic influence on vasopressin release.
- 22nd International Gunma Symposium on Endocrinology, Maebashi, JAPAN, Sept. 9-11, 1984. Chairman of scientific session: Monoamine-peptide interactions in the hypothalamus. Invited presentation: Noradrenergic-vasopressin interactions in the supraoptic and paraventricular nuclei.
- Beckman Research Institute of the City of Hope Symposium on Neuroimmunology, Pasadena, CA, Oct. 7-8, 1984. Invited presentation: Innervation of immune system tissue.
- First Annual International Symposium on Neuronal Control of Bodily Function- Basic and Clinical Aspects: I. New Concepts of Regulation of Autonomic, Neuroendocrine and Immune Systems, Indianapolis, IN, Oct. 17-19, 1984. Chairman of Scientific Session: Immune system. Invited presentation: Overview of the autonomic nervous system. Member: External advisory committee.
- Howard Hughes Medical Institute Neuromodulation of Immunity and Hypersensitivity Workshop, Coconut Grove, FL, Nov. 12-14, 1984. Invited presentation: Innervation of the immune system.
- American College of Neuropsychopharmacology Symposium, San Juan, PUERTO RICO, Dec. 11-14, 1984. Invited presentation: Interaction between the nervous and immune systems.
- Workshop on Brain Cell Transplantation and Parkinson's Disease, Rochester, NY, April 18-19, 1985. Invited presentation: Anatomy of the nigrostriatal dopaminergic system.

- American Academy of Neurology Meeting, Dallas, TX, April 29-May 3, 1985. Invited lecture: Central control of the autonomic nervous system. Invited lecture: Sprouting and synaptic reorganization in defined anatomical systems.
- World Health Organization, Scientific Meeting on Perspectives for Immunological and Neurobiological Research in Aging, Geneva, SWITZERLAND, May 13-16, 1985. Invited lecture: Problems of neuroimmunomodulation.
- American Association for the Advancement of Science, Symposium on Neural Modulation of Hypersensitivity and Immunity, Los Angeles, CA, May 29-31, 1985. Invited lecture: Regional innervation of lymphoid tissue.
- American Neurological Association Meeting, Chicago, IL, Sept. 2-4, 1985. Invited presentation: Lasting reorganization of noradrenergic fibers in the cerebellar cortex of Purkinje cell degeneration (pcd) mice.
- Second Annual International Symposium on Neuronal Control of Bodily Function-Basic and Clinical Aspects: II. Psychological and Biological Approaches to the Understanding of Human Disease, Bielefeld, FRG, Oct. 14-17, 1985. Chairman of Scientific Session: Brain systems as mediators between behavior and bodily disease. Invited Lecture: Innervation of the gut: Implications for interactions between the nervous and immune systems. Member: External Advisory Committee.
- Winter Conference on Brain Research, Keystone, CO, Jan 25 - Feb 1, 1986. Invited Lecture: (S.Y. Felten and D.L. Felten), Anatomical and neurochemical evidence for reciprocal communication between the nervous and immune systems.
- NIAID and NINCDS (NIH) State-of-the-Art Symposium on The Immune System and Neurological Disorders, National Academy of Sciences, Washington, D.C., Feb. 24-25, 1986. Invited Lecture: Innervation of lymphoid tissue and the role of neurotransmitters and neuropeptides.
- Jefferson Medical College, Lecture on Neuroimmunology, Philadelphia, PA, March 1, 1986. Invited Lecture: Brain-Immune interactions.
- University of Illinois Basic Science Seminar Invited Lecture Series, Urbana, IL, Mar. 3-4, 1986. Invited Lectures: (1) Do the brain and the immune systems communicate with each other?; (2) Involvement of peripheral and central catecholamine systems in neural-immune interactions.
- Loma Linda University School of Medicine Symposium on Optimizing Immune Responses through Health Enhancement, Loma Linda, CA, Mar. 4-5, 1986. Invited Lecture: Regional innervation of lymphoid tissue: A substrate for neurotransmitter modulation of immune responses.
- Texas Society for Electron Microscopy Meeting on Molecular Aspects of Aging, Nacogdoches, TX, Mar. 20-22, 1986. Invited Lecture: Aging in the Nervous System.
- American Association of Anatomists Meeting, Reno, NEV, April 7, 1986. Chairman: Invited Special Topics Session on Interactions Between the Nervous and Immune Systems. Invited Lecture: Autonomic innervation of lymphoid tissue.
- Neurosciences Society of Goteborg, SWEDEN, May 5, 1986. Invited Johnson Lecture: Interactions between the nervous and immune systems in both directions.
- Karolinska Institute, Stockholm, SWEDEN, May 6, 1986. Invited lecture: Evidence for interactions between the nervous and immune systems in both directions.

- American Association for the Advancement of Science, Symposium of Neurobehavioral Influences on Immunity: An Emerging Field, Philadelphia, PA, May 26, 1986. Invited lecture: Innervation of lymphoid tissue.
- XVIIIth International Congress of the International Society of Psychoneuroendocrinology, Bergen, NORWAY, 29 June - 4 July, 1986. Invited Symposium Lecture: Compartmentalization of peripheral autonomic innervation of lymphoid tissue.
- 6th International Congress of Immunology, Toronto, CANADA, 6-11 July, 1986. Invited Symposium on Immune-Neuroendocrine Interactions. Invited Lecture: Innervation of lymphoid tissue- Neurotransmitters as modulators of the immune system.
- DNAX Research Institute of Molecular and Cellular Biology, Inc. Symposium on Neuroimmunology, Palo Alto, CA, Aug.21, 1986. Invited Lecture: Autonomic innervation of lymphoid organs: Neurotransmitters as modulators of the immune system.
- Dartmouth College, Neurosciences Lecture Series, Hanover, NH, Oct. 7, 1986. Invited Lecture: Interactions between the nervous and immune systems in both directions.
- Nijmegen, Netherlands. Brain and Behavior Society Symposium on "Brain, Behavior, and the Immune System", Nijmegen, NETHERLANDS, Oct. 26-28, 1986. Invited Lecture: Autonomic and endocrine control of immune system.
- Third Annual International Symposium on Neuronal Control of Bodily Function: Basic and Clinical Aspects. III. Neurobiology of Amino Acids, Peptides and Trophic Factors, St. Louis, MO, Nov. 4-7, 1986. Chairman of Scientific Session: Trophic Factors and Plasticity. Member: External advisory committee.
- Midwest Autumn Immunology Conference, Chicago, IL, Nov. 15, 1986. Symposium on Interactions Between the Neuroendocrine and Immune Systems. Invited Lecture: Functional implications of noradrenergic and peptidergic innervation of immune tissue.
- Duke University Pharmacology Seminar Series, Durham, NC, Dec. 2, 1986. Invited lecture: Interactions between the nervous system and immune system in both directions.
- UCLA Program in Psychoneuroimmunology Seminar Series, Los Angeles, CA, Dec. 9-10, 1986. Invited lecture: Innervation of lymphoid organs- A direct neural-immune link.
- Winter Conference on Brain Research, Symposium on N.I.H. Grant Programs, Vail, CO, Jan. 25-31, 1987. Invited presentation: Post-doctoral fellowship evaluations.
- Michigan State University, Neurosciences Program Research Colloquium, Lansing, MI, March 5, 1987. Invited lecture: Interaction between the brain and immune system in both directions.
- Dalhousie University, Halifax, Nova Scotia, CANADA, March 18-20, 1987. Visiting Professor: Friday at Four University-wide Lecture: Interactions between the nervous and immune systems in both directions. Department of Anatomy Seminar: The nigrostriatal dopaminergic system in aging: Protective strategies and the MPTP neurotoxic model.
- University of Rochester, Rochester, NY, March 24, 1987. University Forum Lecture: Neurological basis for mind and body interaction.
- American Psychosomatic Society 44th Annual Meeting, Philadelphia, PA., March 27, 1987. Invited Workshop on Update on Psychoneuroimmunology. Lecture: Neuroanatomical foundations of brain-immune interactions.

- International Society for Mucosal Immunology, Symposium on Neuropeptides and the Mucosal Immune System, Washington, D.C., March 29, 1987. Invited lecture: Nerves and lymphocytes: Structural connections.
Participant: Panel discussion.
- Ohio State University, Immunology Program Seminar Series, Columbus, OH, April 7, 1987. Invited lecture: Neural-immune interactions in both directions.
- Iowa State University, Immunobiology Program Seminar, Ames, IA, April 15, 1987. Invited lecture: Interaction between brain and immune system in both directions.
- McMaster University, Hamilton, Ontario, CANADA, Pathology Research Seminar, April 21, 1987. Invited lecture: Structural and functional evidence for direct autonomic communication with lymphocytes.
- University of Kentucky School of Medicine, Lexington, KY. Department of Anatomy Seminar, April 23, 1987. Invited lecture: Interactions between the nervous and immune systems in both directions.
- Fifth Annual Medical Laboratory Immunology Symposium, Williamsburg, VA, May 3-6, 1987. Chairman of Session on Nervous System and Immune Interactions. Invited presentation: Role of neurotransmitters in immunomodulation.
- 42nd Annual Meeting of the Society for Biological Psychiatry, Chicago, IL, May 7, 1987. Invited Lecture in Plenary Session on Brain-Immune Interactions: Autonomic innervation of lymphoid organs.
- National Institute of Mental Health, Health and Behavior Research Branch. Workshop on the Behavioral and Psychosocial Effects on Physical Health, Arlie, VA, May 7-9, 1987. Chairman of Session: The Neuroendocrine and Immune Systems Network. Primary Discussant: Anatomical basis for neural-immune interactions.
- Second Conference on Neural-Immune Interactions, Lexington, KY, May 15-17, 1987. Invited lecture: Noradrenergic neurotransmission in the spleen.
- Loma Linda University School of Medicine, Loma Linda, CA, May 20-21, 1987. Combined Medicine/Surgery Grand Rounds: Psychoneuroimmunology: The brain-immune connection and clinical implications. Basic Sciences Teaching Seminar: Criteria for autonomic noradrenergic neurotransmission in lymphoid organs with immune cells as targets.
- International Society for Neurochemistry Satellite Symposium on Nervous System Aspects of Nervous System - Immune System Interactions, Grenada, WEST INDIES, June 7-9, 1987. Invited lecture: Catecholaminergic modulation of the immune system.
- American Association of Neuropathologists Course in Neuroimmunology, Seattle, WA, June 11, 1987. Invited lecture: Structural interactions between lymphoid and nervous tissue.
- 6th International Catecholamine Symposium, Jerusalem, ISRAEL, June 14-19, 1987. Invited lecture in Symposium on Catecholamines and the Immune System: Interaction between nervous system and the immune system.
- Naval Oceans Systems Center, Department of the Navy, San Diego, CA, 10-11 Aug. 1987. Invited lecture: Interactions between the brain and the immune system.
- Fourth International Symposium on Neuronal Control of Bodily Function- Basic and Clinical Aspects: IV. New Frontiers of Stress Research. Trier, W. GERMANY, 17-21 September, 1987. Chairman of Scientific Session:

Stress Hormones (Peptides), Their Role in Homeostasis I. Invited Lecture: Interactions between autonomic nerves and secondary lymphoid organs in both directions. Member: External advisory committee.

Central Neuropsychiatric Association Meeting, Indianapolis, IN, 8-9 Oct. 1987. Invited Lecture: Brain-Immune Interactions.

University of Marburg, Marburg, W. GERMANY, 22 September 1987. Invited lecture: Autonomic innervation of immune organs.

Society for Neurosciences, New Orleans, LA, 16-21 November 1987. Chairman of Scientific Session: Neural Control of Immune System II. Invited Lecture: Autonomic innervation of lymphoid tissue in Symposium on Neuropeptides/Neural Systems in Fever, Inflammation and Immune Responses.

Kiel University, Institute for Physiology, Kiel, W. GERMANY, 7 January 1988. Invited Upjohn Lecture in Neurobiology Colloquium: Neural regulation of the immune system.

European Science Foundation, European Training Programme in Brain and Behavior Research - 1988 ETD Winter School on Brain, Behavior and the Immune System, Zuoz, SWITZERLAND, 9-16 January 1988. Chairman of Scientific Session: Organization Principles of the Brain, Autonomic Nervous System and Neuroendocrine System. Invited Lecture: Neural regulation of the immune system: Organizational aspects. In: Symposium on Organization Principles of the Immune System: Self, Neural, and Endocrine Regulations.

University of Alabama, Birmingham, AL, 27 January 1988. Invited Seminar in Perspectives in Cell Biology: Autonomic neural interaction with the immune system.

Yale University, New Haven, CN, 5 Feb 1988. Psychiatry and Neurology Grand Rounds: Direct innervation of the immune system. Resident's Seminar: Research approaches to neural-immune interactions.

UCLA Symposium Western Winter Workshop on Neural-Immune Interactions, Lake Tahoe, CA, 10-13 March 1988. Invited Presentation: Innervation of immune organs.

UCLA Task Force on Psychoneuroimmunology Conference, Lake Arrowhead, CA, 10-13 March 1988. Invited Lecture: Neural regulation of the immune system: Evidence for autonomic neurotransmission in lymphoid tissue with immune cells as targets.

G.D. Searle and Co., St. Louis, MO, 18 March 1988. Invited Seminar: Evidence for neurotransmission in the immune system with lymphocytes as targets.

University of Pittsburgh, Department of Behavioral Neuroscience and Brain, Behavior and Immunity Training Program, Pittsburgh, PA, 21 March 1988. Colloquium: Autonomic neural interactions with the immune system.

MacArthur Foundation Health and Behavior Network Meeting on CNS Effects on Physiological Processes Relevant to Health and Illness, St. Petersburg, FL, 22-24 March 1988. Invited Lecture: Neural-immune interactions.

Office of Naval Research Meeting on Behavioral Immunology, Arlie House, VA, 2-4 May 1988. Invited Presentation in Session on Anatomical Relationships and Receptor Distribution: Noradrenergic modulation of immunity.

Canadian College of Neuropharmacology 11th Scientific Meeting, Montreal, Quebec, CANADA, 3-6 May 1988. Invited Lecture in Symposium on Psychoneuroimmunology: Cells of the immune system as direct targets of autonomic neurotransmission.

- International Federation of Multiple Sclerosis Societies Workshop on the Functional Consequences of Demyelination, Val David, Quebec, CANADA, 1-5 June 1988. Invited Lecture: Neural regulation of the immune system: Evidence for autonomic neurotransmission with immune cells as targets.
- 9th International Symposium on Parkinson's Disease, Jerusalem, ISRAEL, 5-9 June 1988. Invited Presentation with Dr. James A. Clemens, Eli Lilly & Co., Indianapolis, IN in Pergolide Session: Preservation of dopamine neurons following chronic agonist therapy.
- 7th European Society for Neurochemistry Meeting, Gothenburg, SWEDEN, 11-14 June 1988. Invited Lecture in Neuroimmunomodulation Symposium: Influence of the autonomic nervous system on the immune system.
- FASEB Summer Conference on Neuroimmunomodulation, Copper Mountain, CO, 26 June - 1 July 1988. Invited Lecture: General patterns of innervation of lymphoid organs. Chairman: Session on Neural Circuitry and Transmitter Interactions with Immune Organs.
- XVth Collegium Internationale Neuro-Psychopharmacologium, Munich, W. GERMANY, 15-19 August 1988. Invited Lecture: Brain-Immune system interactions- Noradrenergic innervation of secondary immune organs fulfills criteria for neurotransmission with lymphocytes as targets.
- The Royal Society of Medicine, London, International Conference on Neuroimmune Interactions, London, ENGLAND, 19-20 September. Chairman: Conference Program. Invited Lecture: The innervation of the immune system.
- University of London at Middlesex Hospital, Department of Immunology, London, ENGLAND, 21 September 1988. Invited seminar: Innervation of lymphoid organs.
- United Medical Schools at St. Thomas' Hospital, Department of Anatomy and Histology, London, ENGLAND, 23 September 1988. Invited seminar: Sympathetic innervation of immune organs: Criteria for neurotransmission with cells of the immune system as targets.
- Society for Neurosciences Symposium: Interleukin-1: Immune and Neural Modulator, Toronto, CANADA, 13-18 November 1988. Chairman of symposium. Invited presentation: Introduction to neural-immune interactions.
- Society for Neurosciences Special Interest Dinner, Psycho/Neuroimmunology: What don't we know, why don't we know it, and when are we going to find out? Toronto, CANADA, 17 November 1988. Invited presentation: Perspectives on CNS and PNS.
- SUNY Health Sciences Center at Syracuse, Immunology Group Seminar, Syracuse, NY, 29 November 1988. Invited Seminar: Direct contacts between the nervous system and the immune system.
- MacArthur Foundation Meeting on Biological Factors in Stress-Related Morbidity and Mortality, Philadelphia, PA, 15-16 December 1988. Discussant and invited presentation: The direct effects of stress on the immune system.
- American Congress of Neuropsychopharmacology Satellite Symposium on Central Nervous System and Immune System Interactions: Defining a New Field, San Juan, PUERTO RICO, 17-18 December 1988. Invited lecture: Direct contacts between autonomic nerves and lymphocytes. N.I.M.H. Division of Basic Science Panel: Opportunities and Initiatives for the NIMH. Participant on panel.
- University of Medicine and Dentistry of New Jersey, Department of Neurosciences Seminar, Newark, NJ, 4 January 1989. Invited Seminar: Evidence for direct interactions between sympathetic noradrenergic nerves and lymphocytes.

McMaster University Seminar Series on Molecular Mechanisms in Neurosciences, Hamilton, Ontario, CANADA, 24 February 1989. Invited Seminar: Neural-immune interactions: Working both ways.

University of Kansas Medical Center Biological Sciences Lecture, Kansas City, KS, 1 March 1989. Invited Lecture: Evidence for direct interaction between the nervous system and immune system. Department of Anatomy and Cell Biology Seminar, 2 March 1989. Invited Seminar: Evidence for neurotransmission in immune organs in development, maturation and aging.

American Society for Neurochemistry, Chicago, IL, 4-6 March 1989. Special Workshop on Neuroimmunomodulation. Invited Presentation: Innervation of lymphoid organs. Symposium on Neural-Immune Interactions: Organizer and Chairman. Presentation: Introduction to the field of neural-immune interactions.

NIMH Clinical Research Centers Directors' Conference, Bethesda, MD, 10-12 April 1989. Workshop Presentation: Evidence for direct neural-immune interactions.

Atlanta Chapter of the Society for Neuroscience and the Emory Neuroscience Group Fourth Annual Spring Symposium on Interactions Between the Immune System and the Brain, Atlanta, GA, 22 April 1989. Invited lecture: An overview of interactions between the immune system and the brain.

Eli Lilly Research Laboratories Seminar, Indianapolis, IN, 2 May 1989. Invited Seminar: Clinical applicability of research on neural-immune interactions.

Advanced Seminar on Stress and Aging Brain, Pavia, ITALY, 19-20 May 1989. Invited Lecture: Neural-immune interactions in aging.

Manitoba Institute of Cell Biology Research Seminar, Winnipeg, Manitoba, CANADA, 1 June 1989. Invited Seminar: Interactions between the brain and the immune system in both directions.

Academy of Behavioral Medicine Research Annual Meeting, Lake Mohonk, NY, 11-14 June 1989. Chairman of Session: Psychoneuroimmunology.

NIMH Conference on Mechanisms for Neuroimmune Interactions, Pittsburgh, PA, 25-28 Sept 1989. Chairman of Session: Receptors and transmitters.

World Health Research Foundation Symposium on Mind/Body Medicine, University of Victoria, Victoria, BC, CANADA, 29-30 Sept 1989. Invited Lecture: Evidence for direct interactions between the brain and the immune system.

New York Academy of Science Conference on Neuropeptides and Immuneopeptides: Messengers in a Neuroimmune Axis, New York, NY, 2-4 Oct 1989. Chairman of Session: Neuropeptide modulation of the immune response.

INSERM Philippe Laudat Conference on The Neuroendocrine-Immune Network: Molecular Aspects, Strasbourg, FRANCE, 15-19 Oct 1989. Invited Lecture in Session on Neurotransmitters and Immune Function: Catecholamines and innervation of the immune system.

6th International Symposium on Neuronal Control of Bodily Function: Basic and Clinical Aspects: Symposium on Peripheral Signaling of the Brain: Role in Neural-Immune Interactions and Learning and Memory, Irvine, CA, 23-27 Oct 1989. Symposium Organizer: Session I on Peripheral Signaling of the Brain in Neural-Immune Interactions. Invited Lecture: Neural-immune circuitry. Member: External Advisory Committee.

- Sigma Xi Lecture at University of Wisconsin at LaCrosse, LaCrosse, WI, 22 Jan 1990. Invited Lecture: Direct signaling between the nervous and immune systems.
- Masonic Medical Research Laboratory Meeting on Interleukin-2 in Hypertension and Arthritis, Utica, NY, 9 Feb 1990. Invited Presentation: Autoimmune disorders and neurotransmitters.
- University of Pennsylvania Immunology Graduate Group "Distinguished Speaker" Seminar Series, Philadelphia, PA, 27-28 Feb 1990. Invited Lecture: Evidence for direct signaling between the nervous and immune systems. Invited Lecture to M.D.-Ph.D. Students: Protective strategies and induced sprouting in the aging dopaminergic nigrostriatal system.
- NIMH Mental Disorders of the Aging Research Branch Workshop on the Mental Health of Family Caregivers in Alzheimer's Disease and Related Dementias, Washington, D.C., 12-14 Mar 1990. Invited Presentation and Discussion: The mental health/physical health interface in caregiving.
- University of Southern California Aging Center and Neurosciences Program, Los Angeles, CA, 25 April 1990. Invited Seminar: Evidence for neurotransmission with lymphocytes as targets.
- Third Carolina Conference on Molecular Biology (Univ. of North Carolina at Chapel Hill Program in Molecular Biology & Biotechnology), Neurodegenerative Disease: Convergence of Neurobiology, Virology, and Immunology, Wrightsville Beach, NC, 26-29 April 1990. Invited Lecture in Session on The Brain's Relationship to the Immune System: Selective age-related decline in peptidergic and noradrenergic innervation of lymphoid organs.
- American Psychiatric Association 143rd Annual Meeting, New York, NY, 12-17 May 1990. Invited Lecture in Symposium on Psychoneuroimmunology Update: Neurotransmitters- physiological immunomodulators.
- Oregon Health Sciences University R.S. Dow Neurological Sciences Institute of the Good Samaritan Hospital Lecture Series, Portland, OR, 25 May 1990. Invited Lecture: A brain-immune connection: Neurotransmitter signaling with lymphocytes as targets.
- Deutsche Krebshilfe Workshop on Psychoneuroimmunology in Relation to Cancer, Tutzing Academy, Tutzing, W. GERMANY, 3-7 June 1990. Discussant of Session I: Survey of current concepts of the field, Chairman of Session III: Interactions of Immune and CNS Processes. Invited Lecture: Neurotransmitter signaling of immunocytes.
- Basel Research Institute Department of Neurosciences, Basel, SWITZERLAND, 13 June 1990. Invited Lecture: Noradrenergic and peptidergic innervation of the immune system.
- German Society for Psychophysiology Annual Meeting, Geissen, W. GERMANY, 14 June 1990. Invited Lecture: Direct noradrenergic and peptidergic innervation of lymphoid organs: Evidence for an immunomodulatory role.
- Institute of Psychiatry, Maudsley Hospital, Denmark Hill, ENGLAND, 20 June 1990. Invited Seminar: Evidence for direct innervation of lymphoid organs.
- Stanford-Syntex Symposium on Peptides in Pain and Inflammation, Palo Alto, CA, 25 June 1990. Invited Lecture: Noradrenergic and peptidergic innervation of lymphoid organs: Implications for modulation of autoimmune disease.

- University of Rochester Conference on Research Perspectives in Psychoneuroimmunology, Rochester, NY, 13-15 Sept 1990. Invited Review: Neuroendocrine-immune signaling. Co-organizer of the conference (with R. Ader and N. Cohen).
- Colorado State University Cell and Molecular Biology Seminar Series, Ft. Collins, CO, 20 September 1990. Invited Seminar: Neural-Immune interactions: Evidence for neurotransmitter signaling with cells of the immune system as targets.
- Seventh International Symposium on Neuronal Control of Bodily Function: Endocrine and Nutritional Control of Basic Biological Functions, Mainz, W. GERMANY, 26-28 Sept 1990. Chairman of Session: Control of sleep behavior. Member: External Advisory Board.
- Soviet-American Conference on New Developments in Psychoneuroimmunology, Esalen Institute, Big Sur, CA, 14-19 Oct 1990. Invited Presentation: Neural regulation of immunity.
- 20th Annual Society for Neurosciences Meeting, St. Louis, MO, 28 Oct - 2 Nov 1990. Chairman of Special Interest Event: Psychoneuroimmunology: From a behavioral perspective, is there any such thing as a "normal" immune response?
- 43 Annual Scientific Meeting of The Gerontological Society of America, Boston, MA, 16-20 Nov 1990. Invited Presentation in Symposium on Immunological Aspects of Aging: Cellular Immunity: Age-related changes in interactions between the nervous system and immune system.
- Tompkins Community Hospital Outreach Program, Ithaca, NY, 14 Dec 1990. Invited Seminar: Neurotransmitter signaling of cells of the immune system.
- Pfizer Visiting Professor, Department of Psychiatry, University of California at San Diego, CA, 14-18 Jan 1991. Psychiatry Grand Rounds: Direct interaction between nerve fibers and cells of the immune system. Neuroscience Research Rounds: Diminished plasticity of dopaminergic nigrostriatal fibers in the aged brain.
- N.I.M.H. Neuroscience Findings in AIDS Research Meeting, Bethesda, MD, 21-22 Feb 1991. Chairman of Session: Brain-Immune Interactions in Both Directions. Invited Presentation: Noradrenergic and peptidergic neurotransmission with cells of the immune system as targets.
- Oregon Museum of Science and Industry, and Good Samaritan's Neurological Science Center, Portland, OR, 27-28 Feb 1991. OMSI 6th Annual Mysteries of the Mind Series Public Lecture: Mind-Body Interactions. Oregon Health Sciences University, Department of Neurology Seminar: Innervation of the immune system.
- Sloan-Kettering Cancer Center and Cornell University Department of Neurology, New York, NY, 12 March 1991. Invited Seminar: Direct neural-immune interactions: noradrenergic and peptidergic neurotransmission with cells of the immune system as targets.
- St. Louis University School of Medicine, Department of Internal Medicine, Division of Geriatric Medicine, St. Louis, MO, 13-14 March 1991. Invited Lecture: Age-related alterations in neural-immune interactions.
- Volkswagen Foundation Symposium on Neural-Immune Interactions, University of Trier, Trier, GERMANY, 20 March 1991. Invited Presentation: Recent progress in neurotransmitter signaling of cells of the immune system.
- Congress of the German Society for Behavioral Medicine and Behavioral Modification, Trier, GERMANY, 21-24 March 1991. Invited Plenary Lecture: Direct interactions between the brain and the immune system: Functional and behavioral implications.

- European Society of Clinical Investigation, Symposium on Neuroimmunology and Rheumatoid Arthritis, Pisa, ITALY, 3-7 April 1991. Invited Lecture: Noradrenergic and peptidergic innervation of secondary lymphoid organs: role in experimental rheumatoid arthritis.
- Canadian Schizophrenia Foundation 20th Annual International Conference, Immunology: The Mind/Body Connection, Toronto, Ontario, CANADA, 26-28 April 1991. Invited Lecture: Direct signaling between the brain and the immune system.
- Hennepin County Medical Center and University of Minnesota, Minneapolis, MN, 1-3 May 1991. Bakken Institute Annual Lecture: Diminished plasticity of dopaminergic nigrostriatal neurons in the aging brain. Department of Medicine Grand Rounds: Direct neural-immune interactions: Evidence for noradrenergic and peptidergic neurotransmission with cells of the immune system as targets.
- Proctor and Gamble Co., Miami Valley Laboratories (Bristol-Myers), Division of Exploratory Pharmacology, Cincinnati, OH, 8 May 1991. Invited Lecture: Noradrenergic and peptidergic signaling of the immune system: therapeutic implications.
- American Psychiatric Association 144th Annual Meeting, Symposium on Psychoneuroimmunology Update, New Orleans, LA, 13-15 May 1991. Invited Presentation: Neurotransmitter innervation and influences on the immune system.
- International Society for Immunopharmacology, 5th International Conference on Immunopharmacology, Symposium on Neuroendocrine-Cellular Immune System Interactions, Tampa, FL, 27 May 1991. Invited Lecture: Direct innervation of lymphoid organs: Evidence for neurotransmission with lymphocytes as targets.
- FASEB Summer Conference on Neuroimmunology, Saxons River, VT, 15-20 June 1991. Chair of Session: Neural Circuits and Transmitters in Immunity. Invited Lecture: Direct interaction between nerve fibers and cells of the immune system.
- Eli Lilly Research Laboratories, Indianapolis, IN, 26-27 June 1991. Research Presentation: A speculative hypothesis: Glucocorticoids, central catecholamines and IL-1 mediate stress-induced and immunologically induced exacerbation of hippocampal, striatal, and cortical damage in cerebral ischemia.
- Woods Hole Marine Biology Laboratories Course on Pathogenesis of Neuroimmunologic Disease, Woods Hole, MA, 18-20 Aug 1991. Invited Lecture: Interactions among nervous, immune, and endocrine systems.
- International Meeting on Research Perspectives in Psychoneuroimmunology III, Columbus, OH, 12-14 Sept 1991. Discussant: Session on Mechanisms of Neuroendocrine-Immune Interactions. Member: Planning Committee.
- National Institute on Aging Workshop on Neuroendocrinology and Aging: Perspectives and Prospectives, Airlie House, VA, 6-9 Oct 1991. Invited Lecture in Session on Growth Factors in Neuroendocrinology: Altered neuroimmune-neuroendocrine signaling in the aging brain: factors and functional implications. Chair: Session on Endocrine Pathways and Behavior.
- International Conference on Advances in Molecular Research: New Strategies for Immuno-, Tumour-, and Neuro-Therapy, Schloss Elmau, Garmish-Portenkirchen, GERMANY, 10-12 Oct 1991. Chair: Session on Neurology. Invited Lecture: Neural-immune interactions.
- Symposium on Iron and Oxidation Reactions in the Normal and Parkinsonian Brain, Sarasota, FL, 15-16 November 1991. Invited presentation: Age-related decline in the dopaminergic nigrostriatal system: The oxidative hypothesis and protective strategies.

- Centerlink Conference on a Psychoneuroimmunology Computer Database, Tiburon, CA, 10-11 January 1992.
Invited presentation: Brain to immune system signaling.
- University of Colorado, Department of Psychology, Boulder, CO, 3 March 1992. Invited Presentation:
Noradrenergic and peptidergic innervation of the immune system.
- University of Colorado Health Sciences Center, Denver, CO, 3 March 1992. Invited Presentation: Evidence for
neurotransmission with cells of the immune system as targets.
- American Psychosomatic Society 50th Annual Meeting, New York, NY, 4 April 1992. Symposium on
Psychoneuroimmunology: Neuroendocrine-Immune System Interactions, Invited Presentation: Innervation of
the immune system.
- Society for Experimental Biology, Symposium on Synaptic and Non-Synaptic Interactions Between Neurones and
Other Cells, Lancaster, ENGLAND, 5-10 April 1992. Symposium Chairperson, and Invited Lecture: Neuro-
immune interactions.
- University of Illinois College of Medicine, Urbana, IL, 20-21 April 1992. Lecture for 1st year medical students:
Nervous system-immune system interactions. Invited Neurosciences Program Lecture at the Beckman Institute:
Neural-immune signaling: Criteria for neurotransmission with cells of the immune system as targets.
- International Symposium on Stress and Adaptation: Biological and Clinical Aspects, Amsterdam,
NETHERLANDS, 19 June 1992. Invited Lecture: Catecholamines and immunity.
- 7th International Catecholamine Symposium, Amsterdam, NETHERLANDS, 22-27 June 1992. Invited Plenary
Lecture: Central and peripheral catecholamines as mediators of neural-immune communication.
- NIMH Workshop on "The Study of Suicide and Aging: Evolving Questions in a Life Course Perspective,"
Rockville, MD, 9-10 July 1992. Invited Comments: Psychobiology of suicide- neurobiology of aging.
- NIMH Workshop on "CNS, Immune, Endocrine and Viral Interactions," Rockville, MD, 27-29 July 1992. Invited
Introductory Lecture: Overview of neuro-endocrine-immunology.
- 3rd International Veterinary Immunology Society, Symposium on "Neuroendocrinological and Immunological
Interactions, Budapest, HUNGARY, 17-20 Aug 1992. Invited Lecture: Innervation of primary and secondary
lymphoid organs.
- 9th International Congress of Histochemistry and Cytochemistry, Maastricht, NETHERLANDS, 30 Aug - 5 Sept
1992. Invited Plenary Lecture: Nerve-immune system interactions.
- Conference on Alzheimer's Disease: Translating Caregiver Research into Policy and Practice, Portland, OR, 17-19
Sept 1992. Invited Lecture: Caregiving and the immune system: Implications of neural-immune
communication.
- 11th Annual Symposium on Geriatrics and Gerontology: Aging, Immunity, and Infection, St. Louis, MO, 21-23
Sept 1992. Invited Lecture, Session on Psychoneuroendocrine Modulation of Immunity: Implications for the
Aged: Sympathetic nervous system regulation of immune system.
- Sixth Workshop on Psychoneuroimmunomodulation, Fukuoka, JAPAN, 24 Sept 1992. Invited Plenary Lecture:
Direct innervation of cells of the immune system: Evidence for neurotransmitter modulation of immune
function.

- Department of Neurological Surgery, Okayama University Medical School, Okayama, JAPAN, 25 Sept 1992. Invited Lecture: Direct innervation of lymphoid organs: Evidence for neurotransmission with cells of the immune system as targets.
- National Center of Neurology and Psychiatry, Tokyo, JAPAN, 28 Sept 1992. Invited Lecture: Noradrenergic and peptidergic signaling of cells of the immune system: Basis for neural modulation of immune responses.
- University of Michigan Institute of Gerontology Biomedical Research Seminar, Ann Arbor, MI, 13 Oct 1992. Invited Lecture: Age-related alterations in neural-immune communication.
- First International Symposium on Psychobiology, The Castle of Rauischholzhausen, Giessen, GERMANY, 19-21 Nov 1992. Invited Lecture: Neurotransmitter interactions with cells of the immune system.
- St. Francis Medical Center, LaCrosse, WI, 28 Dec 1992. Invited Seminar: Recent progress in brain, behavior and immunity.
- Dartmouth College, Hanover, NH, 21-22 Jan 1993. 7th Annual Neuroscience Day Invited Lecture: Evidence for neurotransmission with cells of the immune system as targets.
- National Institute of Environmental Health Sciences, Research Triangle Park, NC, 17 Feb 1993. Invited Seminar: Innervation of lymphoid organs: Noradrenergic and peptidergic signalling of cells in the immune system.
- Keystone Symposium on The Molecular Biology of Aging, Lake Tahoe, CA, 19-25 Mar 1993. Invited Presentation: Neurotoxin-aging interactions: Age-related alterations in plasticity of central dopaminergic neuronal systems.
- FASEB (American Society for Pharmacology and Experimental Therapeutics), New Orleans, LA 28-30 Mar 1993. Symposium on The Thymus in Neuroendocrine Perspective, Invited Presentation: Noradrenergic and peptidergic innervation of lymphoid organs.
- Keuka College Workshop, Keuka Park, NY, 1-3 Apr 1993. Three-Day Workshop: Promoting Central Nervous System Function Through Therapeutic Activities.
- American Psychiatric Association, San Francisco, CA, 27 May 1993. Workshop on Suicide and Aging: Evolving Questions, Invited Presentation on psychobiology.
- Woods Hole Marine Biology Laboratory, Woods Hole, MA, 18 Aug 1993. Course on Pathogenesis of Neuroimmunologic Diseases, Invited Lectures: Section on Neuroimmunology and Neuropathologic Mechanisms: Psychoneuroimmunology and neuroendocrine immunology: Interactions among nervous, immune, and endocrine systems.
- 14th International Society for Neurochemistry Meeting, Montpellier, FRANCE, 22-27 Aug 1993. Workshop on Dopaminergic Neuroprotection: State of the Art, Invited Presentation: Neuroprotective actions of pergolide on age-related deterioration of rodent dopaminergic nigrostriatal neurons.
- Max Planck Institute for Experimental Medicine, Gottingen, GERMANY, 30 Aug 1993. Invited Seminar: Evidence for direct interactions between the nervous and immune system.
- 7th Conference of the European Health Psychology Society, Brussels, BELGIUM, 1-3 Sept 1993. Symposium on Psychoneuroimmunology, Invited Lecture: Sympathetic modulation of lymph node function: Role in lymphocyte proliferation, differentiation, and migration, and role in autoimmunity.

- Perinatal Research Society Meeting, Ville D'Estrel, Quebec, CANADA, 18-20 Sept 1993. Invited Lecture: Evidence for direct signaling between the nervous and immune systems in both directions.
- 23rd Annual Society for Neuroscience Meeting, Wash. D.C., 7-12 Nov 1993. Chairman of Scientific Session: Neural-Immune Interactions: Neuroendocrine Control of Immune Response.
- Lilly Deutschland Symposium on Parkotil (Pergolide), Berlin, GERMANY, 13-14 Nov 1993. Invited Lecture: Are dopamine agonists neuroprotective?
- 52nd Annual Meeting of the American Academy of Dermatology, Wash.DC, 4-9 Dec 1993. Symposium on The Skin and the Nervous System: Invited Presentations: How the brain influences the immune system: Viral infections reactivated by stress.
- 4th Annual Lecture of The Fund for Psychoneuroimmunology, U of California at San Francisco, San Francisco, CA, 10 Dec 1993. Invited Lecture: Evidence for direct functional connections between nerve cells and immune cells: Implications for health and disease.
- NIMH and NIA Meeting on The Psychoneuroimmunological Aspects of Health and Disease, Wash. D.C., 12-14 Jan 1994. Public Session on Mind/Body Interactions and Disease, Invited Lecture: Biological Mechanisms. Scientific Session Presentations: Host factors affecting PNI modulation, aging. Chairman: Working Group on Future Directions, PNI Relationships.
- Gordon Conference on the Biology of Aging, Oxnard, CA, 27 Feb- 4 March 1994. Invited Presentation: Age-related changes in sympathetic innervation of lymphoid tissue.
- NIMH and W.T. Grant Foundation Depression Consortium Workshop on Risk and Developmental Processes in the Emergence of Sex Differences in Depression in Adolescence, Rockville, MD, 24-26 Mar 1994. Invited presentation: Affective and behavioral influences on bidirectional signaling between the nervous and immune system.
- Peter H. Knapp Visiting Research Psychiatry Professor at Boston University, Boston, MA, 14-15 April 1994. Invited Keynote Address at the 52nd Annual Scientific Meeting of the American Psychosomatic Society: Health consequences of neurally driven immune signaling. Lecture to residents: What should we measure in psychoneuroimmunology research? Lecture to medical students: Psychoneuroimmunology: Popular fad or solid science?
- Iowa Hospital Association 65th Annual Meeting, Des Moines, IA, 19-20 April 1994. Invited Keynote Address- Communication between the brain and the immune system: A scientific basis for mind-body interactions. Lecture to Physician's Group- Mechanisms underlying brain-immune communication.
- Grass Foundation Traveling Scientist Lecture, Philadelphia Chapter of the Society for Neuroscience, Philadelphia, PA, 22 April 1994. Grass Foundation Lecture: Direct signaling between the nervous system and the immune system: Molecular and cellular foundations of psychoneuroimmunology.
- 1994 International Medical Conference on Pergolide, Pre-Conference Symposium for the American Academy of Neurology, Indianapolis, IN, 27-30 April 1994. Invited Lecture: Neuroprotection and pergolide.
- American Academy of Neurology Annual Meeting, Wash D.C., 30 April 1994. Neural science course workshop: How to effectively integrate the basic neural sciences with clinical neurology.

- Albany Medical College Department of Pharmacology & Toxicology, Albany, NY 4 May 1994. Invited Seminar: Evidence for direct signaling between the nervous system and the immune system.
- Medical College of Pennsylvania, Department of Pharmacology, Philadelphia, PA, 14 July 1994. Invited Seminar: Evidence for direct signaling between the nervous system and the immune system.
- 8th Annual Retreat, Center for Neurosciences University of Pittsburgh, Pittsburgh, PA, 9-11 Sept 1994. Invited Lecture: Direct autonomic innervation of lymphoid organs and its immunologic role.
- Niigata Symposium on Neuroprotection and Pergolide, Niigata, JAPAN, 16 Sept 1994. Invited Lecture: Pergolide and neuroprotection of central dopamine neurons.
- Kasamatsu Symposium on Neuroprotection and Pergolide, Kasamatsu, JAPAN, 17 Sept 1994. Invited Lecture: Pergolide and neuroprotection of central dopamine neurons.
- The Lovelace Institute Symposium on Neuroimmunomodulation: Stress and Immune Function, Albuquerque, NM, 7-9 October 1994. Invited Presentation: A summary of neural-immune and immune-neural signaling.
- Fifth Annual Student Research Forum, The University of Michigan, Ann Arbor, MI, 14 Oct 1994. Invited Seminar: A functional role for direct neural-immune contacts.
- Fourth International Congress of Neuroimmunology, Amsterdam, NETHERLANDS, 23-27 Oct 1994. Chairman: Workshop on Immunological functions of microglial cells and macrophages.
- University of Maryland Department of Medicine, Division of Endocrinology, Seminar, Baltimore, MD, 4 Nov 1994. Invited Seminar: Functional consequences of direct neural-immune connections.
- Research perspectives in Psychoneuroimmunology (4th Meeting of the PNI Research Society), Key Biscayne, FL, 16-20 Nov 1994. Chairman: Session on Neuroendocrine-Immune System Interactions.
- 47th Annual Scientific Meeting of The Gerontological Society of America, Atlanta, GA, 21 Nov 1994. Chairman: Symposium on Cost/Benefit Analysis of a Hormone-Laden Lifespan. Invited Presentation: Sympathetic burnout and immunosenescence.
- Naito Conference on Neuro-Immuno-Endocrine Networks, Gifu, JAPAN, 25-28 Nov 1994. Invited Presentation: Sympathetic noradrenergic influence on T cell immunity, autoimmunity, and immunosenescence.
- The Holland Laboratory, American Red Cross, Rockville, MD, 9 Dec 1994. Invited Seminar: Sympathetic neural interactions with the immune system.
- The University of Texas Health Science Center at San Antonio, Department of Physiology, San Antonio, TX, 9-10 Jan 1995. Invited Seminar: Functional consequences of sympathetic innervation of lymphoid organs. Presentation to Aging Research Discussion Group: Immunosenescence and loss of sympathetic innervation of secondary lymphoid organs.
- John D. and Catherine T. MacArthur Foundation Research Network on Mind-Body Interactions: Immunity, Behavior and Health Meeting, Ft. Lauderdale, FL, 13-14 Jan 1995. Discussion Leader: Immune system measures applicable to humans.
- National Institute of Dental Research, Working Group on PNI Research, Bethesda, MD, 25 Jan 1995. Invited Presentation: Neural and hormonal mediators underlying neural-immune signaling.

Loma Linda University, 63rd Annual Postgraduate Convention of the Schools of Medicine and Public Health, Loma Linda, CA, 7 March 1995. Invited Lecture in Preventive Medicine Symposium: Direct connections between the nervous and immune systems: Cellular and molecular basis for mind-body interactions.

University of Kentucky College of Medicine, Department of Anatomy and Neurobiology Seminar Series, Lexington, KY, 4 April 1995. Invited Seminar: Sympathetic neural influences on cell-mediated immunity, autoimmunity, and immunosenescence.

Karolinska Institute Department of Dermatology, Neurodermatology Symposium, Stockholm, SWEDEN, 21 April 1995. Invited Lecture: Neural and endocrine influences on the immune system.

9th Symposium on Molecular Biology of Hematopoiesis, Genoa, ITALY, 21-26 June 1995. Invited Lecture (with Dr. David Wu) in Symposium on Neuroendocrine Cytokines in Hematopoiesis: Innervation of lymphoid organs: Role in hematopoiesis.

NASA/NIEHS Workshop to Identify Mutual Areas of Research Interest, Rochester, NY, 28-29 June 1995. Chaired session and gave introduction to: Issues regarding immunotoxicology and stress.

Johns Hopkins Asthma & Allergy Center Sixth Annual Symposium- Nerves in Inflammatory Disease, Baltimore, MD, 13 Oct 1995. Invited lecture: Neuroregulation of lymphocyte function and immune response.

Imperial Point Medical Center Continuing Medical Education Program, Ft. Lauderdale, FL., 18 Oct 1995. Invited seminar: Direct connections between the nervous system and the immune system: Neural modulation of T cell immunity, autoimmunity, and immunosenescence.

Gerontological Society of America 48th Annual Meeting, Los Angeles, CA, 17 Nov 1995. Invited lecture in the Symposium on Degeneration and Oxidative Damage in Aging: L-deprenyl induces recovery of splenic sympathetic nerves and enhances some immune functions in aged rats.

MacArthur Foundation Mind-Body Network Workshop, Jupiter Beach, FL, 7-8 Jan 1996. Invited participant: Workshop on immune function, behavior, and health.

National Association for Music Therapy, Inc, Rochester, NY, 28 Mar 1996. Invited lecture: A scientific basis for mind-body medicine.

Mount Sinai School of Medicine Neurobiology Seminar Series, New York, NY, 24 May 1996. Invited lecture: Sympathetic neural influence on cell-mediated immunity, autoimmunity, and immunosenescence.

Office of Behavioral and Social Science Research, N.I.H., Working Group Meeting on Psychoneuroimmunology, Bethesda, MD, 29 May 1996. Invited workshop participant.

First International Conference on Immunology and Aging, Bethesda, MD, 16-19 June 1996. Symposium organizer: Neuro-endocrine-immune system interactions. Invited lecture: Influence of neuroendocrine and neurotransmitter modulation of immune responses.

8th Naito Conference on Neuro-Immuno-Endocrine Networks, Gifu, JAPAN, 14-19 Oct 1996. Chairman: Symposium on Neuro Modulation of Immunity. Invited lecture: Autonomic neural control of immunity: Sympathetic modulation of cell-mediated immunity, autoimmunity, and immunosenescence.

Wellcome Visiting Professorship at Loyola University, Chicago, IL, 4-6 Nov 1996. Wellcome lecture: Direct neural connections with organs of the immune system: A functional and structural basis for mind-body

interactions. Wellcome seminar: Sympathetic neural control of cell-mediated immunity, autoimmunity, and immunosenescence: possible neurotherapeutic approaches to immune-mediated diseases and processes.

3rd International Congress of the International Society for Neuroimmunomodulation, Bethesda, MD, 13-15 Nov 1996. Invited plenary presentation: Sympathetic modulation of cellular and humoral immunity, autoimmunity, and immunosenescence. Co-chair (with Semour Reichlin): Session on Nervous System Inputs to Inflammation.

Gerontological Society of America 49th Annual Meeting, Symposium on Neuroendocrine Contributions to Immunosenescence, Wash. D.C., 18 Nov 1996. Invited lecture: Sympathetic noradrenergic nerves and immunosenescence.

Loma Linda University School of Medicine, Loma Linda, CA, 12 Mar 1997. Neurology Grand Rounds: Neural modulation of acquired immunity, autoimmunity, and immunosenescence.

Sun Health Research Institute, Sun City, AZ, 10 Apr 1997. Invited Seminar: Sympathetic neural modulation of acquired immunity, autoimmunity, and immunosenescence.

Dartmouth Medical School, Lebanon, NH, 13 May 1997. Psychiatry Grand Rounds: Evidence for direct interactions between the nervous system and the immune system.

Department of the Army Symposium on Toxicology in Risk Assessment, Bethesda, MD, 14-16 May 1997. Invited Lecture: Neural-immune interactions in risk assessment.

UCLA-Harbor Research and Education Institute, Torrance, CA, 20 May 1997. Invited Seminar: Sympathetic neural regulation of immune responses, autoimmunity, and immunosenescence.

National Research Council Committee on Space Biology and Medicine, Systems Physiology Workshop, Wash DC, 28-31 May 1997. Invited Presentation: Neural influences on immune responses.

Medical University of South Carolina College of Medicine, Charleston, SC, 2 June 1997. Invited Seminar: Direct neural-immune signaling: Sympathetic modulation of immune responses and immunosenescence.

5th Annual Symposium on Drugs of Abuse, Immunomodulation, and AIDS, Nashville, TN, 12-14 June 1997. Invited Lecture: Sympathetic neural modulation of acquired immunity, autoimmunity, and immunosenescence.

Schmitt Symposium on Stress and the Pituitary-Adrenal Axis, Trier, GERMANY, 19-22 June 1997. Co-Chair (with Dr. Dirk Hellhammer) and Sponsor. Invited Lecture in Session on Pituitary Axis and the Immune System: The role of glucocorticoids in sympathetic modulation of immune responses.

Neurocrine Biosciences, Inc., La Jolla, CA, 27 June 1997. Invited Seminar: Neural modulation of immune responses.

Trudeau Institute, Inc., Saranac Lake, NY, 14 July 1997. Invited Seminar: Evidence for direct interactions between the nervous system and the immune system.

Woods Hole Marine Biology Laboratory Course on Pathogenesis of Neuroimmunologic Diseases (17-29 Aug 1997), Woods Hole, MA, 28 Aug 1997. Invited Lecture: Sympathetic modulation of immune responses.

University of Delaware, Newark, DE, 10 Sept 1997. Biological Sciences Seminar: Direct neural regulation of lymphocyte function and immune responses.

- Emory University School of Medicine, Department of Anesthesiology, Atlanta, GA, 18 Sept 1997. Invited Seminar: Sympathetic neural modulation of acquired immunity, autoimmunity, and immunosenescence.
- Rochester, New York Chamber of Commerce, Rochester, NY, 7 Oct 1997. One-Day Course Presentation: Scientific basis for mind-body medicine.
- Sixth Annual Cancer Care Symposium of the Mercy Hospital Regional Cancer Center, Port Huron, MI, 15 Nov 1997. Invited Keynote Address: The mind-body connection. Invited Lecture: The influence of the immune system and the central nervous system on metastases.
- Center for Advancement of Health and the Fetzer Institute Advisory Committee for the Children's Social Competence and Health Outcomes Project, Wash DC, 28-29 Jan 1998. Invited Workshop Discussant: Determination of health outcomes.
- 9th Annual Spring Brain Conference, Sedona, AZ, 11-15 Mar 1998. Plenary Session VIII: The Brain-Immune Axis, Invited Lecture: Sympathetic neural modulation of acquired immunity, autoimmunity, and immunosenescence.
- An Interdisciplinary Workshop on The Science and Practice of Mind/Body Interactions, Sedona, AZ, 15-18 Mar 1998. Session VI: The Influence of Brain and Mind on the Body, Invited Lecture: Autonomic control of the immune system.
- Elizabeth Blackwell Health Institute Forum 98: Women's Agenda for the New Century, Long Beach, CA, 30-31 Mar 1998. Invited Lecture: The psychoneuroimmunologic interconnection between stress and illness.
- Rochester Academy of Medicine Seminar on Integrative Medicine: The Functional Interaction of Mind, Body, and Spirit, Rochester, NY, 3 May 1998. Invited Keynote Lecture: Interactive signaling between the nervous system and the immune system: An autonomic and neuroendocrine foundation for the incorporation of body, mind, and spirit in health and illness.
- NIAID Task Force on Immunology Meeting, Washington, DC, 26-27 May 1998. Invited Presentation of Task Force Report, Future directions in neuroimmunology.
- Interdisciplinary Workshop in Psychoneuroimmunology, NIDR and University of Missouri-Kansas City, Kansas City, MO, 26-31 May 1998. Four hour workshop presentation: Innervation of lymphoid tissue: Neural-immune signaling and innate immunity, acquired immunity, autoimmunity, immunosenescence, and response to cancer.
- University of California at Riverside Neurosciences Seminar, Riverside, CA, 2 June 1998. Invited seminar: Neural-immune signaling: Implications for acquired immunity, autoimmunity, and immunosenescence.
- Vanguard Academy, Lake Wales, FL, 11 June 1998. Commencement Address: Lessons from neurosciences.
- Penn State University 17th Summer Symposium in Molecular Biology on Immune-Neuro-Endocrine Interactions: Molecular and Cellular Mechanisms, University Park, PA, 29-31 July 1998. Invited Keynote Address: Interactive signaling between the nervous system and the immune system: An autonomic and neuroendocrine foundation for the incorporation of body, mind, and spirit in health and illness.
- Meadville Medical Center, Mind-Body Wellness Center, Meadville, PA, 18 Sept 1998. Invited Seminar: Evidence for bidirectional communication between the brain and the immune system: Scientific foundations for integrative medicine.

- Kansas State University School of Veterinary Medicine, Manhattan, KS, 28 September 1998. Invited Lecture: Interactions between the nervous and immune system.
- Loma Linda University School of Public Health and Cancer Institute Program on Advances in Cancer Prevention, Loma Linda, CA, 11-12 Oct 1998. Invited Lecture: The neuroimmune system and cancer.
- 17th Biennial Southern Union Medical-Dental Congress, Gatlinburg, TN, 15-17 Oct 1998. Invited Lectures in Continuing Education Program: Psychoneuroimmunology- science of whole person care (Interactions between the nervous and immune systems); Neuroimmunology- The medicine of whole person care (Brain, behavior and immunity); Panel Discussion and Short Synopsis of Whole Person Health Care.
- Center for Advancement of Health, Workshop on Children's Social Competence and Health Outcomes, Washington DC, 25-26 Oct 1998. Presentation and Discussion: Childhood experiences and stress hormones and the sympathetic nervous system.
- National Multiple Sclerosis Society, Southern California Chapter Annual Meeting, Los Angeles, CA, 8 Nov 1998. Scientific Program on Alternative and Complementary Therapies in Multiple Sclerosis, Keynote Lecture: Psychoneuroimmunology and the Power of the Mind.
- Loma Linda University Medical Center, Internal Medicine Grand Rounds, Loma Linda, CA, 17 Feb 1999. Grand Rounds: Neural regulation of immune responses and immune-related diseases.
- Loma Linda University Medical Center Annual Pathology Reunion, Loma Linda, CA, 4-5 March 1998. Invited Swatek Lecture: Direct connections between the nervous system and immune system: Evidence for a functional role in innate immunity, acquired immunity, autoimmunity, immune senescence and cancer.
- Annual Postgraduate Convention of Loma Linda University, Healthy People '99, Loma Linda, CA, 10 March 1999. Invited Lecture: The mind-body connection.
- University of Alabama at Birmingham School of Medicine 17 Annual Review of Modern Therapeutics 1999, Huntsville, AL, 23 April 1999. Invited Lecture: Neuroimmunologic foundations for whole person care.
- Loma Linda University Cancer Institute, Loma Linda, CA, 2 June 1999. Oncology Lecture Series: Laughter is serious medicine.
- Loma Linda University Perinatal Biology Seminary, Loma Linda, CA, 21 June 1999. Invited Lecture: Sympathetic noradrenergic innervation of lymphoid tissue and mechanisms of neurotransmitter interaction with immunocytes.
- California Society of Radiation Therapists Annual Meeting, Loma Linda, CA, 22 August 1999. Invited Lecture: Scientific basis for mind-body interactions.
- National Heart, Lung, and Blood Institute Workshop on Sleep and Host Defense Mechanisms, Bethesda, MD, 24-26 August 1999. Invited Lecture in Session III. Host Defense Mechanisms Influenced by Sleep and Circadian Rhythms- Stress Mechanisms: Sympathetic innervation of lymphoid tissue.
- Woods Hole Marine Biology Laboratory Course on Pathogenesis of Neuroimmunologic Diseases, Woods Hole, MA, 27 August 1999. Invited Lecture: Sympathetic modulation of immune responsiveness.
- Los-Angeles/Orange County Chapter of the Association of Rehabilitation Nurses, and UCLA Fall Educational Event, UCLA, Los Angeles, CA, 22 Sept 1999. Invited Lecture: Immunology and stress: Effects of chronic illness on the immune system.

- Performing Arts Medicine of Central New York, and CNY Finger Lakes Chapter of the National Association of Teachers of Singing Annual Lecture, Syracuse, NY, 25 Sept 1999. Invited Lecture: The mind/body connection.
- UC San Diego, The Sam and Rose Stein Institute for Research on Aging, The Roehr Memorial Lecture, San Diego, CA, 7 Feb 2000. Invited Lecture: Humor and its effects upon the immune system.
- Loma Linda University School of Medicine, Internal Medicine Grand Rounds, Loma Linda, CA, 16 Feb 2000. Invited Lecture: Neural-immune signaling: Application to cancer and infectious diseases.
- Loma Linda University School of Medicine, Integration of Spirituality and Psychiatry Seminar Series, Loma Linda, CA, 18 Feb 2000. Invited Lecture: Psychoneuroimmunology and spirituality.
- Ideas: Rethinking Medicine, Canadian Broadcasting Corporation, Toronto, CANADA. Invited participation in CBC radio series on the new integration of complementary and alternative approaches with conventional care.
- F.F. Thompson Hospital, Sands Cancer Center, Canandaigua, NY, 25 April 2000. Invited Lecture: The scientific foundations of integrative medicine: Application to the Sands Cancer Center Program in Integrative Complementary Medicine.
- St. Helena Hospital, President's Forum Lecture Series, Napa Valley, CA, 29 April 2000. Invited Lecture: Scientific foundations of integrative medicine.
- Fuller Theological Seminary, Travis Research Institute, Pasadena, CA, 2 May 2000. Invited Lecture: Psychological and spiritual issues in psychoneuroimmunology.
- Loma Linda University School of Medicine, Neuroscience Grand Rounds, Loma Linda, CA, 3 May 2000. Invited Lecture: Neural-immune signaling and integrative medicine.
- 11th International Conference on Advances in Prostaglandins and Leukotrienes, Post-Conference Workshop on "Inflammatory Cytokines, Neurodegeneration, and Cancer", Florence, ITALY, 7-11 June 2000. Invited Lecture and Discussion: Cytokine influences on stress axes of the brain.
- Presentation to Administration and Medical Board, Glendale Adventist Medical Center, Glendale, CA, 28 August 2000. Invited presentation: The scientific foundations of integrative medicine: A proposed integrative medicine program for a large urban hospital.
- Grand Rounds, F.F. Thompson Medical Center, Canandaigua, NY, 11 September 2000. Invited presentation: Integrative and complementary medical approaches in cancer and cardiovascular care.
- Spirituality and Medicine Seminar, Loma Linda University School of Medicine, Loma Linda, CA, 12 Oct 2000. Invited Presentation: The role of psychosocial interventions and spirituality in integrative medicine: physiological correlates.
- EcaP (Exceptional Cancer Patients) Professional Training Program, Sawmill Creek, OH, 20-22 Oct 2000. Invited Lectures: Psychoneuroimmunology- the scientific basis for complementary and integrative medicine; Interventions in cancer care – altered physiological parameters in complementary cancer care.
- 5th International Symposium on Predictive Oncology and Therapy, Geneva, SWITZERLAND, 26-30 Oct 2000. Invited lecture – Neural-Immune treatment of breast cancer; Invited poster – Deprenyl: a modulator of neuroendocrine-immune interactions in breast cancer.

9th Annual Meeting of the Psychoneuroimmunology (PNI) Research Society in Utrecht, THE NETHERLANDS, 15-19 May 2001. Chair: Symposium on Sympathetic Nervous System Modulation of Immune Function: Role in Immune Function Abnormalities in the Elderly, in Cancer, and in Autoimmune Disease. Poster Presentation: The anticipation of a humor eustress event modulates mood states prior to the actual experience.

2001 Western Conference of Dental Examiners and Dental School Deans, Coeur d'Alene, ID, 26-29 July 2001. Invited lecture: The immune system- physiological changes from volunteerism and mind/body interventions.

University of Marburg International Symposium on Mechanisms of Neuro-Immuno-Endocrine Interactions, Marburg, GERMANY, 11-12 October 2001. Invited Plenary Lecture: Sympathetic nerves modulate immune responses and influence host reaction to infectious diseases, cancer, autoimmune diseases, and immune senescence.

World President's Organization Symposium, Irvine, CA, 8 November 2001. Invited Symposium: Integrative Medicine: The changing face of health care in America; Lecture: Introduction to complementary and integrative medicine.

31st Annual Meeting of the Society for Neurosciences, San Diego, CA, 12-15 November 2001. Invited Presentation: The anticipation of a laughter eustress event modulates mood states prior to the actual humor experience.

Pacific Rim Cultural Foundation Conference 2001: Marriage of Eastern and Western Medicine, Beverly Hills, CA, 29 November 2001. Co-sponsor of the symposium. Invited Presentation: Relationship between mind/brain and immunity: An important link in Eastern and Western medicine.

California State University, Fullerton, Ruby Gerontology Center Education Series on Advances in Medicine, Fullerton, CA, 12 Feb 2002. Invited Lecture: Successful aging: The role of complementary and integrative medicine.

National Cancer Institute Meeting on Biological Mechanisms of Psychosocial Effects on Disease, Bethesda, MD, 28 Feb- 1 Mar 2002. Invited Presentation: Complementary interventions of humor and music: Modulation of neuroendocrine and immune parameters.

University of California, Irvine, Center for Immunology Faculty Retreat, Irvine, CA, 14 Mar 2002. Invited Presentation: Neural strategies for modulating innate and acquired immune responses- from pharmacology to behavior.

Crown Cove Community Lecture Series, Corona del Mar, CA, 18 April 2002. Invited Lecture: Aging and integrative medicine.

FASEB Annual Meeting, New Orleans, LA, 21 April 2002. American Society for Pharmacology and Experimental Therapeutics (ASPET) Workshop: Incorporating Complementary, Alternative, and Integrative Medicine (CAM) Into Basic Sciences Teaching. Invited Lecture: Incorporating mechanisms of CAM into basic medical neurosciences and immunology courses.

Harbor Ridge Women's Club, Newport Beach, CA, 24 April 2002. Invited Talk: Humor and laughter in complementary medicine- the biology of its healing effect.

University of California, Irvine Mini Medical School, Irvine, CA, 6 May 2002. Invited Lecture: Science and the mind-body connection.

Orange Colunty Psychological Association Meeting, Orange, CA, 8 May 2002. Invited Talk: Complementary mind/body interventions and health.

Traditional Chinese Medicine World Foundation Conference on Building Bridges of Integration for Traditional Chinese Medicine, East Rutherford, NJ, 3-6 Oct 2002. Invited Plenary Lecture: Neural-immune communication, biological mediators, and molecular signaling: Mechanistic foundations for the integration of TCM and Western medicine; Workshop Organizer and Presenter: How can we identify the mechanistic scientific foundations for the seamless integration of TCM, integrative medicine, and conventional Western medicine?

Metanexus Institute Symposium on Spiritual Transformation and Biology, Philadelphia, PA, 5-6 Oct 2003. Invited Presentation: Neuroendocrine and immunological changes in spiritual interventions and other complementary interventions. Chair of Working Group: Biological mediator approaches.

Regent's Point Men's Forum, Irvine, CA, 17 Oct 2002. Invited Talk: Successful aging.

Continuing Education Program for Southern California Acupuncturists, Irvine, CA, 19 Oct 2002. Four-Hour Course: Neuroendocrine and immunological foundations of integrative medicine.

University of California, Irvine, Institute for Brain Aging and Dementia, Irvine, CA, 28 Oct 2002. Invited Lecture: Age-related deterioration in central and peripheral catecholamine neuronal systems: The hypothesis of oxidative auto-destruction.

Orange County Administrators of Special Education Meeting, Orange, CA, 4 Nov 2002. Invited Talk: Lessons from complementary medicine for stress management and health promotion.

University of Vermont, Burlington, VT, 18 Nov 2002. Family Practice Grand Rounds: Humor and laughter alter neuroendocrine and immune mediators: Molecular foundations for complementary interventions in integrative medicine; Invited Seminar in Anatomy & Neurobiology: Neural-immune signaling in both directions: Implications for animal models of cancer, autoimmune disease, and aging.

The Inside Edge Foundation for Education, Irvine, CA, 20 Nov 2002. Invited Lecture: The health benefits of humor and laughter, and other complementary interventions.

4th Annual Tamkin Symposium: Complementary and Integrative Medicine- The Science and Art of Healing Relationships, Irvine, CA, 21 Nov 2002. Invited Plenary Lecture: Neuroimmunological mechanisms underlying stress and modalities that improve stress.

King-Drew Medical Center, Martin Luther King Hospital, Los Angeles, 25 Mar 2003. Medical Grand Round: Neuroendocrine and immunological foundations of integrative medicine.

American Cancer Society, Colon Awareness Sympsiom, Irvine, CA, 12 April 2003. Invited Lecture: Cancer, integrative medicine, and biological mediators.

Shady Canyon Women's Symposium, Newport Beach, CA, 29 May 2003. Invited Dinner Seminar: Women's health, successful aging, and complementary medicine.

Lanterman Hospital and Eli Lilly & Co. All Day Continuing Education Workshop, Via Verde, CA, 5 June 2003. Seminar on Successful aging, chronic diseases, and integrative medicine.

First International Conference on Acupuncture, Herbal Therapy, and Immune Modulation, Newport Beach, CA, 13-14 September 2003. Invited Keynote Lecture: Complementary interventions in integrative medicine:

Neuroendocrine and immune effects of human interventions. Chair of scientific session: Scientific Mechanisms of acupuncture.

Traditional Chinese Medicine World Foundation Symposium on Building Bridges of Integration for Traditional Chinese Medicine, Meadowlands, NJ, 10-12 October 2003. Invited Keynote Lecture: Investigating the scientific foundations for the physiological benefits of life style, mind/body, and complementary interventions. Workshop (3 hr): Neural-immune communication, biological mediators, and molecular signaling: Mechanistic foundations for the integration of TCM and conventional western medicine. Panel Discussion Presenter: Can the West measure the East: Opportunities and challenges in developing TCM research.

Grief and Trauma Workshop, Orange, CA, 24 October 2003. Invited Keynote Lecture: Neurological responses of trauma compared with those of chronic stress.

NIA Longevity Consortium Symposium, Santa Monica, CA, 6-7 November 2003. Invited lecture: Stress, psychoneuroimmunology, and aging.

Tenth Anniversary Symposium of the Society for Acupuncture Research, Harvard University, Cambridge, MA, 15-16 November 2003. Invited Keynote Address: Neuroimmunology: From molecular signaling to complementary and integrative medicine.

St. Joseph's Hospital Medical Grand Rounds, Paterson, NJ, 17 December 2003. Invited Presentation: Scientific foundations for integrative medicine.

St. George's University School of Medicine CME Conference, "An Overview of Integrative Medicine", Grenada, West Indies, 2-4 February 2004. Invited Lectures: Scientific foundations of integrative medicine; Humor and laughter as complementary medicine, Experimental approaches to integrative medicine.

New Jersey Neuroscience Institute, Neurology Grand Rounds, Edison, NJ, 11 February 2004. Invited presentation: Scientific foundations for neural-immune signaling and integrative medicine.

St. Michael's Hospital, Medical Grand Rounds, Newark, NJ, 19 February 2004. Invited presentation: Scientific foundation for integrative medicine.

Seton Hall University Faculty Research Symposium, S. Orange, NJ, 5 April 2004. Invited luncheon presentation: Research and relevance: From observations to hypothesis testing to integration and synthesis.

Rutgers: The State University of New Jersey, Department of Biomedical Engineering, Busch Campus, Piscataway, NJ, 20 September 2004. Invited Seminar: Scientific foundations for integrative medicine.

St. Joseph's Regional Medical Center, Annual Research Symposium, Paterson, NJ, 6 October 2004. Invited keynote address: Scientific foundations for integrative medicine: Stress hormones, cytokines, inflammatory mediators, and insulin resistance in relation to risk for chronic disease.

Traditional Chinese Medicine World Foundation Symposium: Building Bridges of Integration for Traditional Chinese Medicine- Beyond Technique: The Heart of Healing, East Rutherford, NJ, Oct 8-10, 2004. Invited keynote lecture: Re-orienting wellness: The scientific foundations for integrative medicine. Chairman of scientific panel: The art of herbs and acupuncture for cancer.

California Learning Disabilities Society Conference, Ontario, CA, Oct 13-15, 2004. Invited keynote lecture: Bidirectional neural-immune signaling: A possible role in learning disabilities. Invited workshop: The complex neurobiology of learning disabilities.

- 7th World Congress on Qigong, San Francisco, CA, Nov. 11-13, 2004. Invited keynote presentation: How mental and psychological states and mind/body practices can affect the immune system and influence the risk of chronic diseases. Invited symposium lecture: The immunobiology of humor and laughter, and anticipation.
- 18th Conference on Counseling and Treating People of Colour: An International Perspective, Bermuda, Dec. 1-4, 2004. Invited keynote lecture: Community focused integrative medicine and medical education: Addressing health disparities in people of colour. Satellite Conference on Quality of Life Issues Among the Elderly, Nov. 31, 2004. Invited lecture: Aging, chronic diseases, and risk factors in people of colour.
- Symposium on Integrative Medicine, Saddlebrook, NY, Jan 29, 2004. All day presentation: Scientific foundations for integrative medicine.
- Seton Hall University Continuing Education Program in Dental Medicine, Sanibel Island, FL, Mar 3, 2005. Invited keynote lecture: The emerging neurobiology of healing.
- Loma Linda University Symposium on Healthy People 2005: Lifestyle Science- Integrating Prevention and Intervention, Loma Linda, CA, Mar 8-10, 2005. Invited keynote lecture: Mind/Body interactions, lifestyle, and health: The importance of bi-directional brain-immune communication. Student session: Historic and scientific foundations for psychoneuroimmunology.
- University of New England College of Osteopathic Medicine, Biddeford, ME, Mar 29, 2005. Invited lecture for medical students: Scientific foundations for integrative medicine.
- National Institute on Aging Advisory Panel on Endocrine-Immune Interactions and Aging, Potomac, MD, April 12-13. Invited presentation: Neural-immune interactions and the scientific foundations for integrative medicine.
- Traditional Chinese Medicine World Foundation Building Bridges of Integration 4th Annual Meeting, True Healing True Health, East Rutherford, NJ, Oct 6-9, 2005. Invited Opening Keynote Address: Incorporating Eastern and Western approaches in pursuit of wellness, chronic disease prevention, and healing. Panel Discussion Leader: The future of collaborative integrative medicine.
- Karolinska Institute, Technology Transfer Program, Stockholm, Sweden, Aug 24, 2006. Invited Presentation: Collaborative business opportunities with William Beaumont Hospital, the Oakland County, MI, Emerging Sectors Program, and the Karolinska Institute.
- Karolinska Institute, Department of Neurobiology, Stockholm, Sweden, Aug 25, 2006. Invited Lecture: Scientific foundations of integrative medicine.
- Traditional Chinese Medicine World Foundation, Building Bridges of Integration 5th Annual Meeting, Transformation, East Rutherford, NJ, Oct 7-8, 2006. Invited Presentation: Metabolic syndrome and integrative medicine. Invited 3 hr Workshop: New directions for integrative medicine.
- Mich Bio Expo 2006, Grand Rapids, MI, Oct 12, 2006. Invited Lecture: Clinical Trials: New directions for translational research, new cautions for regulatory and safety issues.
- Sigma Xi Seminar, Oakland University, Rochester, MI, Oct 8, 2007. Invited Presentation: Neural-Immune signaling: From psychoneuroimmunology to the scientific foundations of integrative medicine.
- Mich Bio Expo 2007, Lansing, MI, Oct 16-17, 2007. Invited Panelist: Governor's Roundtable on Commercialization and Innovation in the Biosciences. Chair of Scientific Session: Optimizing and adaptive clinical drug trial designs.

Traditional Chinese Medicine World Foundation, Building Bridges of Integration 6th Annual Meeting, Transformation- Individuals in Balance, Families in Harmony, Oct 18-21, 2007. Chair of Scientific Session: Medical Qigong. Invited Workshop Presentation: Integrative medicine as the platform for prevention and treatment of cardiovascular disease and cancer.

Manuscripts

1. Felten, D.L., A.M. Laties, and M.B. Carpenter 1974 Monoamine-containing cell bodies in the squirrel monkey brain. *Am. J. Anat.* 139:153-166.
2. Felten, D.L. 1976 Catecholamine neurons in the squirrel monkey hypothalamus. *J. Neural Transm.* 39:269-280.
3. Felten, D.L. , P.V. Hall, R.L. Campbell, and J.E. Kalsbeck 1976 A histochemical investigation of catecholamines in spinal cord injury. *J. Neural Transm.* 39:209-221.
4. Felten, D.L., J.R. Sladek, Jr., and J.G. Wood 1976 Recent advances in the light and electron microscopic localization of central monoamines. *Proc. Vth Internatl. Cong. Histochem. Cytochem.* viii-x.
5. Hall, P.V., J. Smith, R.L. Campbell, D.L. Felten, and M.H. Aprison 1976 Neurochemical correlates of spasticity. *Life Sci.* 18:1467-1471.
6. Hoffman, G.E., D.L. Felten, and J.R. Sladek, Jr. 1976 Monoamine distribution in primate brain. III. Catecholamine-containing varicosities in the hypothalamus of *Macaca mulatta*. *Am. J. Anat.* 147:501-514.
7. Felten, D.L. 1977 Dendritic monoamines in the squirrel monkey brain. *Brain Res.* 120:553-558.
8. Melman, A., D.P. Henry, and D.L. Felten 1978 Catecholamine content of the penile corpora in patients with diabetes associated impotence. *Surg. Forum* 29:634-636.
9. Cummings, J.P. and D.L. Felten 1979 A raphe dendrite bundle in the rabbit medulla. *J. Comp. Neurol.* 183:1-24.
10. Felten, D.L. and K.A. Cashner 1979 Cytoarchitecture of the supraoptic nucleus: A Golgi study. *Neuroendocrinology* 29:221-230.
11. Felten, D.L. and K.A. Crutcher 1979 Neuronal-vascular relationships in the raphe nuclei, locus coeruleus, and substantia nigra in primates. *Am. J. Anat.* 155:467-482.
12. Felten, D.L. and J.P. Cummings 1979 The raphe nuclei of the rabbit brain stem. *J. Comp. Neurol.* 187:199-244.
13. Louillis, C.C., D.L. Felten, and P.A. Shea 1979 HPLC determination of biogenic amines in discrete brain areas in food deprived rats. *Pharm. Biochem. Behav.* 11:89-93.
14. Felten, D.L. and P. Harrigan 1980 Dendrite bundles in nuclei raphe dorsalis and centralis superior of the rabbit: A possible substrate for local control of serotonergic neurons. *Neurosci. Lett.* 16:275-280.
15. McBride, W.J., M.A. Rea, D.L. Felten, N. Sinisi, and B.H. Rohde 1980 Levels of several amino acids in the cerebellar peduncles and four medullary nuclei of control and 3-acetyl-pyridine treated rats. *Neurochem. Res.* 5:337-344.
16. Melman, A., D.P. Henry, D.L. Felten, and B.L. O'Connor 1980 Effect of diabetes upon penile sympathetic nerves in impotent patients. *South. Med. J.* 73:307-310.

17. Melman, A., D.P. Henry, D.L. Felten, and B.L. O'Connor 1980 Alterations of the penile corpora in patients with erectile impotence. *Invest. Urol.* 17:474-477.
18. Moore, S.A., R.G. Peterson, D.L. Felten, and B.L. O'Connor 1980 A quantitative comparison of motor and sensory conduction velocities in short and long term streptozotocin and alloxan diabetic rats. *J. Neurol. Sci.* 48:133-152.
19. Moore, S.A., R.G. Peterson, D.L. Felten, T.R. Cartwright, and B.L. O'Connor 1980 Reduced sensory and motor conduction velocity in 25-week-old (C57BL/Ks (db/db)) mice. *Exp. Neurol.* 70:548-555.
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22. Williams, J.M., R.G. Peterson, P.A. Shea, J.F. Schmedtje, D.C. Bauer, and D.L. Felten 1981 Sympathetic innervation of murine thymus and spleen: Evidence for a functional link between the nervous and immune systems. *Brain Res. Bulletin* 6:83-94.
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24. Dennison, S.J., B.L. O'Connor, M.H. Aprison, V.E. Merritt, and D.L. Felten 1981 Viscerotopic localization of preganglionic parasympathetic cell bodies of origin of the anterior and posterior subdiaphragmatic vagus nerves. *J. Comp. Neurol.* 197:259-269.
25. Simon, J.R., B. Oderfeld-Nowak, D.L. Felten, and M.H. Aprison 1981 Distribution of choline acetyltransferase (CAT), acetylcholinesterase (AChE), muscarinic receptor binding, and choline uptake in the rat medulla. *Neurochem. Res.* 6:497-505.
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29. Burnett, B.T. and D.L. Felten 1981 Aqueductal tanycytes in the rabbit brain: A Golgi study. *Anat. Rec.* 200:337-347.
30. Fuller, R.W., S.Y. Felten, K.W. Perry, H.D. Snoddy, and D.L. Felten 1981 Sympathetic noradrenergic innervation of guinea pig liver: Histofluorescence and pharmacologic studies. *J. Pharmacol. Exp. Ther.* 218:282-288.
31. Felten, D.L. and S.Y. Felten 1981 A functional overview of regional and systemic neuroanatomy. In: S.D. Farber (ed.), Neurorehabilitation: A Multisensory Approach. W.B. Saunders, Philadelphia, pp. 1-107.

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33. Moore, S.A., R.G. Peterson, D.L. Felten, and B.L. O'Connor 1981 Glycogen accumulation in tibial nerves of experimentally diabetic and aging control rats. *J. Neurol. Sci.* 52:289-303.
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35. Rhodes, G., M.L. Holland, D. Wiesler, M. Novotny, S.A. Moore, R.G. Peterson, and D.L. Felten 1982 Structural relationship between the endogenous volatile urinary metabolites of experimentally diabetic rats and certain neurotoxins. *Experientia* 38:75-77.
36. Mueller, S.M., P.J. Ertel, D.L. Felten, and J.M. Overhage 1982 Sympathetic nerves protect against blood-brain barrier disruption in the spontaneously hypertensive rat. *Stroke* 13:83-88.
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