

Brief Biographical Sketch: David L. Felten, M.D., Ph.D.

Education

B.S. – Massachusetts Institute of Technology, 1969

M.D. – University of Pennsylvania School of Medicine, 1973

Ph.D. – University of Pennsylvania, Anatomy- Neurosciences, 1974

Present Position

Vice President, Research
Medical Director, Beaumont Research Institute
William Beaumont Hospitals
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Previous Positions

Dean, School of Graduate Medical Education
Seton Hall University
South Orange, NJ 07079-2689
August, 2003 – September, 2005

Executive Director
Susan Samueli Center for Integrative Medicine
Professor of Anatomy & Neurobiology
University of California, Irvine, College of Medicine
Irvine, CA 92612
July, 2001 – August, 2003.

Director, Center for Neuroimmunology
Professor of Pathology and Professor of Neurology
Loma Linda University School of Medicine
Loma Linda, CA 92350
January, 1998 – July, 2001

Kilian J. and Caroline F. Schmitt Professor and Chair (June, 1995 – Jan, 1998)
Professor of Neurobiology & Anatomy, and Psychiatry (June 1983 – July, 1995)
Director, Markey Charitable Trust Neurobiology Institute for Neurodegenerative
Diseases and Aging (July, 1992 – Dec 1997)
Department of Neurobiology & Anatomy
University of Rochester School of Medicine & Dentistry
Rochester, NY 14642
June, 1983 – January, 1998

Professor of Anatomy and Neurobiology (Asst., Assoc., Professor)
Professor of Psychiatry
Indiana University School of Medicine
Indianapolis, IN 46223
January, 1974 – June, 1983

Honors and 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
National Institutes of Health MERIT Award (10 year research award),
National Institute on Aging, Aug, 1986 – July, 1996)
National Institutes of Mental Health, MERIT Award (10 year research award),
April, 1989 – March 1999
Norman Cousins Award in Mind-Body Medicine, John E. Fetzer Institute, 1995
Robert Wood Johnson Dean's Senior Teaching Scholar, University of Rochester,
1993 – 1995
Building Bridges of Integration Award, Traditional Chinese Medicine World
Foundation, 2007
11 Basic Sciences Teaching Awards – University of Rochester and Indiana
University Schools of Medicine

Research Activities

Nervous system – immune system signaling and interactions
Neurotransmitters and neurohormones: Role in onset, progression, and
treatment of cancer, infectious diseases, autoimmune diseases,
and age-related changes in immune responses; role in Hematopoiesis.
Complementary and integrative medicine: Physiological changes and clinical
use of complementary approaches, including life style approaches
(exercise, nutrition, supplements and antioxidants), mind/body inter-
ventions (humor and laughter, music therapy, guided imagery, meditation),
and traditional Chinese medicine (Qi Gong/Tai Chi, herbal use, acu-
puncture), related to molecular evaluation of mediators.
Use of molecular and cellular assessment tools in the evaluation of complemen-
tary and integrative interventions in medicine
Neurodegenerative Diseases and neuronal protection from oxidative damage

Professional Activities

Co-Editor of Psychoneuroimmunology, 3rd Edition, Academic Press, 2001 – The
definitive text in brain-immune interactions, clinical and basic sciences
Associate Editor and Founding Co-Editor, Brain, Behavior and Immunity, 1987 –
2001.
Editorial Board Member – 4 international journals, Journal Reviewer for 15
international journals in past 7 years
Professional Society Membership: Society for Neuroscience, Federation of

American Societies for Experimental Biology, American Association for Advancement of Science, American Association of Anatomists, New York Academy of Science, Psychoneuroimmunology Research Society (founding organizer), International Symposium on Neuronal Control of Bodily Function: Basic and Clinical Advisory Committee, Traditional Chinese Medicine World Foundation International Symposium Planning Committee.

National Advisory Research Review Committees (or Study Sections) for National Institutes of Health, National Science Foundation, Canadian Research Council, National Academy of Sciences Institute of Medicine Advisory Committees, several national and international research foundations, National Institute on Arthritis and Infectious Diseases Task Force author of Section on Neuroimmunology for the NIAID 10-year extramural research strategic plan, National Center for Complementary and Alternative Medicine Task Force and Study Section, and the NCI Task Force on Integrative Medicine and Cancer.

National Board of Medical Examiners: 15+ years of service, including preparation of material for the U.S. Medical Licensure Examination. Chairman of Neurosciences Committee (1995 – 2002), Member of Interdisciplinary Committees, 1998 – present).

Past Consulting and Advisory Activity: Eli Lilly and Company; Somerset Pharmaceutical Co.; Volkswagen Foundation; National Institutes of Health Intramural Program in the Clinical Neuroendocrinology Branch; Rejuvon Corp.; Constellation Brands, Inc.; F.F. Thompson Medical Center, Canandaigua, NY (consultation for comprehensive complementary integrative medicine program); Glendale Adventist Medical Center, Pasadena, CA (consultation for integrative medical program); Meadville Mind/Body Wellness Center, Meadville, PA (consultation for comprehensive integrative cancer program); Australian Cancer Technology (Avantogen) (scientific and medical advisory board); Integrative Oncology Foundation Greenwich, CN (head, scientific and medical advisory board); Mich Bio, Board of Directors.

Collaborative Research Ties with research laboratories at more than 10 Universities in the U.S., Canada, Germany, and China

Publications: more than 210 published peer-reviewed original journal articles and reviews. Lead author of Netter's Atlas of Human Neuroscience, 2003, The Netter Presenter: Human Neuroscience Collection (electronic), 2004. and sole author of Netter's Neuroscience Flash Cards, 2005 (Icon Learning Systems).

Symposium Presentations and Other Invited Lectures: more than 200 in the past 15 years, in the U.S. and 15+ countries in Europe and Asia

News Media Features: Bill Moyer's Healing and the Mind (TV series and book Of interviews), 20/20, BBC's Worried Sick, NOVA, Canadian Broadcast's "Mind-Body Medicine", Australian TV TLC feature on "Pleasure" and its effects on the immune system, 4 interviews on German Public Television, 2 National Public Radio "Science Friday" features, and numerous other

radio interviews, magazine article features, and television interviews.

Business Activities

Co-founder and owner of Sumavera Medical Innovations, LLC, an IP holding company with novel drug delivery devices, integrative medical products, rehabilitative products, and nanotechnology; Chief Science and Medical Advisor, Head of Scientific and Medical Advisory Board.

ACT (USA), INC (Australian Cancer Technology subsidiary), Chair, Scientific and Medical Advisory Board, Co-Chair of Scientific and Medical Advisory Board for Avantogen (formerly Australian Cancer Technology), San Diego and Sydney, AU.

The Medingen Group, LLC: Chair of the Scientific and Medical Advisory Board

Medigen Services: Chair of the Scientific and Medical Advisory Board, oversee scientific and medical due diligence on biosciences and medical products

Clerisy Corporation: Chair of the Scientific and Medical Advisory Board

Relevant Intellectual Property: (1) A comprehensive behavioral, psychosocial, and life-style assessment tool based on evidence of molecular changes in neuroendocrine hormones, cytokines, inflammatory mediators, and other relevant disease-predicting molecules; (2) A cardiovascular risk-assessment genomics/proteomics tool for evaluating chronic disease progression and efficacy of interventions- similar tool in process for cancer risk assessments; (3) pharmaceutical-grade nutritional supplement product line, particularly for recovery from cancer and other chronic diseases; (4) nasal drug-delivery device (shared IP).

Relevant Writing Experience: Business plans, SBIR grants, NIH and NSF grants

David L. Felten, M.D., Ph.D., Brief Biosketch Narrative Summary

David L. Felten, M.D., Ph.D. is a well known and respected researcher whose contributions helped to establish the field of psychoneuroimmunology and lay the foundations for the physiological understanding of complementary and integrative medicine. Dr. Felten first demonstrated a direct connection between nerve fibers of the sympathetic nervous system and cells of the immune system in several organs, including the spleen, lymph nodes, thymus, and bone marrow. These nerves are major participants in stress responses and their health consequences. Dr. Felten has shown that these nerve connections can influence the onset and course of cancer, infectious diseases including retroviral infections, autoimmune diseases (such as rheumatoid arthritis), and age-related decline in immune responses. He currently is Vice President for Research, and Medical Director of the Beaumont Research Institute at the William Beaumont Hospitals in Royal Oak, MI.

Dr. Felten previously served as Dean of the School of Graduate Medical Education at Seton Hall University in South Orange, NJ from August of 2003 to Sept of 2005, and Executive Director of the Susan Samueli Center for Integrative Medicine, and Professor of Anatomy & Neurobiology at the University of California, Irvine, College of Medicine in Irvine, CA, from July of 2001 to Sept of 2003. Prior to that appointment, he served for 3 ½ years as the founding Director of the Center for Neuroimmunology at Loma Linda University School of Medicine in Loma Linda, CA. From 1983 to 1997, he was at the University of Rochester, first as Professor, and then as the Kilian J. and Caroline F. Schmitt Professor and Chair of the Department of Neurobiology & Anatomy, and as Director of the Markey Charitable Trust Institute for Neurobiology of Neurodegenerative Diseases and Aging.

In the past 10 years, Dr. Felten and colleagues have expanded the scope of their studies to encompass many disease models in cancer, aging, and infectious disease, and to identify the physiological changes in stress hormones, inflammatory mediators, and immune responses that are induced by complementary and integrative interventions such as humor and laughter, music therapy, guided imagery, aerobic exercise, use of antioxidants and other nutritional supplements, and other approaches. His research incorporates sophisticated quantitative molecular, cellular, and tissue engineering approaches to assessment of the mechanistic foundations of complementary and integrative medicine.

David Felten has received numerous honors and awards. For his pioneering findings in neural-immune interactions, he received the prestigious John D. and Catherine T. MacArthur Foundation Prize Fellowship, sometimes called the "genius award" by the press. He was twice nominated for a Lasker Prize. Dr. Felten is one of only a handful of researchers ever to receive two 10-year peer review-based MERIT awards from two separate Institutes (Aging, and Mental Health) at the National Institutes of Health, research support given for an extended period to proven investigators whose work has had extraordinary importance or impact. The John E. Fetzer Institute has honored Dr. Felten's pioneering contributions with the Norman Cousins Award in Mind-Body Medicine in 1995.

Dr. David Felten is co-author of the definitive scholarly text in the field, Psychoneuroimmunology (Academic Press, 3rd edition, 2001), and was the founding co-

editor of the major journal in the field, Brain, Behavior and Immunity, with Drs. Robert Ader and Nicholas Cohen of the University of Rochester. Dr. Felten is the author of over 210 peer-reviewed journals and reviews, most on links between the nervous system and immune system, and has given more than 100 major addresses and presentations at national and international symposia and scientific meetings, including many prestigious named lectureships. He is the lead author of the major revision to the highly acclaimed Frank Netter Medical Illustrations of the Nervous System, published by Icon Learning Systems as Netter's Atlas of Human Neuroscience, 2003, The Netter Presenter: Human Neuroscience Collection, the electronic version, 2004 and Netter's Neuroscience Flash Cards, 2005.

The news media also have recognized his important contributions to integrative and complementary medicine. Dr. Felten was featured in Bill Moyer's PBS series and book, Healing and the Mind, a feature on 20/20, BBC's "Worried Sick", and many other programs on U.S., Canadian, Australian, and German National Public Television. He has been a guest on several National Public Radio programs, such as "Science Friday" and "Mind-Body Matters", and his contributions to science and medicine have been featured in many magazine articles around the world. Dr. Felten's continuing goal is to carefully investigate the scientific foundations for the physiological and molecular benefits of many life style, mind/body, and complementary interventions, helping to fully integrate these approaches into conventional medicine for an evidence-based integrative "whole person care."

Dr. Felten also has an active role in business activities related to medical science. He is a co-founder of Sumavera Medical Innovations, LLC, a company that developed innovative intellectual property related to medical and scientific needs. He served as the Chairman of the Scientific and Medical Advisory Board of this company for 5 years. He also serves as the Chairman of the Scientific and Medical Advisory Board of ACT (USA), a wholly owned subsidiary of Avantogen, Ltd (formerly Australian Cancer Technology, Ltd); this company is developing unique, high-quality supplements for patients with extraordinary needs (e.g. cancer patients). Dr. Felten also served as Director, and now Co-Director of the Scientific Advisory Board of Australian Cancer Technology (now Avantogen, Ltd), and has helped this biotech drug-development company assemble a strong portfolio of vaccine, adjuvant, and chemotherapeutic agents. Dr. Felten currently serves as Chairman of the Scientific and Medical Advisory Boards of The Medingen Group (identifies and develops biotech and biomedical IP), Medingen Services (carries out scientific and medical due diligence for investment groups, Universities, etc), and Clerisy Corporation (distributes and licenses over-the-counter biomedical and biotech products). He enjoys bringing new scientific innovations into the practical realm of product development.