

CURRICULUM VITAE

Esther M. Sternberg, MD

Chronology of Education

McGill University, Montreal, Quebec, Canada B.Sc., with Great Distinction	05/1972
McGill University, Montreal, Canada M.D.C.M.	05/1974

Licensure

Licentiate, Medical Council of Canada (LMCC)	1975
Permit to Practice Medicine, Province of Quebec, Canada	1975
Missouri Medical License (renewable annually)	12/1981 - present

Board Certifications

Diploma, National Board of Medical Examiners, USA	1977
Royal College of Physicians and Surgeons of Canada examinations in Internal Medicine (written section)	1978
Royal College of Physicians and Surgeons of Canada examinations in Rheumatology (written section)	1980
Specialist Certification in Rheumatology Quebec Corporation of Physicians and Surgeons	12/1980

Chronology of Employment

Intern, Medicine McGill University, Royal Victoria Hospital, Montreal, Canada	07/1974-06/1975
General Practice Town of Mount Royal, Quebec, Canada	1975-06/1977
Resident II, Medicine McGill University, Royal Victoria Hospital, Montreal, Canada	07/1977-06/1978
Clinical Fellow, Rheumatology McGill University, Royal Victoria Hospital, Montreal, Canada	07/1978-06/1979
Clinical and Research Fellow, Rheumatology McGill University, Royal Victoria Hospital, Montreal, Canada	07/1979-10/1980
Research Associate Division of Allergy and Clinical Immunology, Department of Medicine Washington University School of Medicine, St. Louis, MO	04/1981-1983

Research Associate Division of Allergy and Clinical Immunology, Department of Internal Medicine Howard Hughes Medical Institute Washington University School of Medicine, St. Louis, MO	1983-1984
Associate Howard Hughes Medical Institute Washington University, School of Medicine, St. Louis, MO	1984-12/1986
Instructor Division of Rheumatology, Department of Medicine Washington University School of Medicine, St. Louis, MO	1984-12/1986
Attending Physician Barnes Hospital, St. Louis, MO	1984-12/1986
Visiting Scientist National Institute of Arthritis, Musculoskeletal and Skin Diseases (NIAMS) NIH, Bethesda, MD	12/1986-1990
Guest Researcher Clinical Neurosciences Branch National Institute of Mental Health (NIMH) Alcohol, Drug Abuse & Mental Health Agency (ADAMHA), Bethesda, MD	12/1986-1990
Visiting Scientist NIAMS, NIH Head, Inter-Institute Unit on Neuroendocrine Immunology and Behavior, NIMH and National Institute of Arthritis, Musculoskeletal and Skin Diseases (NIAMS) NIH and ADAMHA, Bethesda, MD	1989-1990
Tenured senior scientist NIMH, NIH, Bethesda, MD	1991- 2012
Medical Officer and Chief Unit on Neuroendocrine Immunology and Behavior, Clinical Neuroendocrinology Branch NIMH, NIH, Bethesda, MD	1991-1995
Associate Branch Chief Clinical Neuroendocrinology Branch NIMH, NIH, Bethesda, MD	1994-1999
Medical Officer and Chief Section on Neuroendocrine Immunology and Behavior NIMH, NIH, Bethesda, MD	1995-2012
Research Full Professor Dept. Psychology, School Arts & Sciences American University, Washington, DC	1995-2012
Director NIMH Intramural Integrative Molecular, Cellular and Behavioral Neuroscience Program	1999-2000

NIMH, NIH, Bethesda, MD

Director NIMH Intramural Integrative Neural Immune Program NIMH, NIH, Bethesda, MD	2000-2012
Co-Chair Intramural Program on Research on Women's Health, (IPRWH), Office of Intramural Research and ORWH, Office of Director (OD) NIH, Bethesda, MD	2002-2012
Senior Tenured Scientist, NIH (retired)	2012-present
Special Volunteer, NIMH/NIH	2012-2013
University of Arizona Tucson, AZ Research Director Center for Integrative Medicine Director Institute on Place and Wellbeing Professor of Medicine College of Medicine	2012-present

Honors and Awards

1967-1968	McGill University Entrance Scholarship
1968-1971	McGill University Scholarships
1970	McGill University Delegate, Voyage d'Observation et d'Information en France, May-June
1979-1980	Royal Victoria Hospital (McGill University) Research and Development Fund Award
1979-1983	Fellow of the Canadian Arthritis Society
1982	American Academy of Allergy/Schering Travel Grant Award, March
1987-1990	Visiting Scientist, National Institute of Arthritis, Musculoskeletal and Skin Diseases (NIAMS), NIH, Bethesda, MD
1987-1990	Guest Researcher Clinical, Neurosciences Branch National Institute of Mental Health (NIMH) ADAMHA, Bethesda, MD
1989-1990	Visiting Scientist, NIAMS, NIH Head, Inter-Institute Unit on Neuroendocrine Immunology and Behavior, NIMH and National Institute of Arthritis, Musculoskeletal and Skin Diseases (NIAMS), NIH and ADAMHA, Bethesda, MD
1991	Arthritis Foundation, Metropolitan Washington Chapter, William R. Felts Award for excellence in Rheumatology Research Publications
1991	Food and Drug Administration Commissioner's Special Citation for Outstanding Contributions in the Study of the Etiology of Eosinophilia -Myalgia Syndrome.

- 1994 Public Health Service Superior Service Award for identifying the pathogenesis of the L-Tryptophan Eosinophilia Myalgia Syndrome and elucidating a critical role for the central nervous system in conferring susceptibility to inflammatory disease
- 1995 Member, John D. and Catherine T. MacArthur Foundation, Network on Mind-Body Interactions
- 1995-present American Society for Clinical Investigation, elected member
- 1995 National Library of Medicine representative to National Academy of Sciences' and Institute of Medicine's Presidents' Circle Tour of the National Library of Medicine and Emotions and Disease Exhibition
- 1996-97 Co-Director, National Library of Medicine Exhibition on Emotions and Disease, National Library of Medicine, Bethesda, MD
- 1998 J.F.L. Woodbury Lectureship in Rheumatology, Dalhousie University, Halifax, Canada
- 1998-2006 Member, Committee on Military Nutrition Research, Institute of Medicine, National Academy of Sciences
- 1999 United States Department of Health and Human Services Public Health Service Staff Recognition Award, in Recognition and Appreciation of Special Achievement
- 2000 Elected member, Cosmos Club of Washington DC
- 2000 Publisher Nominated for Pulitzer Prize for "The Balance Within. The Science Connecting Health and Emotions." W.H. Freeman & Co, 2000
- 2000 United States Department of Health and Human Services Public Health Staff Recognition Award
- 2001 United States Department of Health and Human Services Public Health Special Act or Service Award, in Recognition and Appreciation of Special Achievement
- 2002 United States Department of Health and Human Services Public Health, National Institutes of Health, NIMH Director's Merit Award for Leadership in Developing Interdisciplinary Programs
- 2003-2005 One of 300 women physicians honored in National Library of Medicine Exhibition celebrating 150 years of women in medicine: "*Changing the Face of Medicine: Celebrating America's Women Physicians*"
- 2003 Distinguished Visiting Professor, Singapore A*STAR/BMRC
- 2003 Lecturer, Nobel Forum on Gender Medicine, Karolinska Institute, Stockholm
- 2003 Trans NIH NIAID Intramural Biodefense Program Award 2003-2005
- 2004 Honorary Host, opening Sister-to-Sister Women's Heart Health Event, Madison Square Garden, NY, NY
- 2005 Keynote Lecture, Royal Society of Medicine, London, UK
- 2005 Moderator & Panelist, with XIVth Dalai Lama. Stress & Health Panels, Mind and Life Institute, Society for Neuroscience Satellite
- 2006 Trans NIH/FDA Intramural Biodefense Program Award 2006-2008
- 2006 George O'Brien Lecture, Harvard Children's Hospital, Boston MA
- 2006 Personal Health Panel Co-Chair, Fortune Most Powerful Women Summit
- 2006 Society for Neuroscience, President's Panel, Frank Gehry Science & Society lecture, Architecture & the Brain
- 2006 "Leader in Neuroscience", Frank Gehry Science & Society lecture, Architecture & the Brain
- 2007 Keynote Lecture. Harvard/Dana Alliance Conference on Learning and the Brain Conference. Boston, MA
- 2007 John J. Conley Lecturer. American Association for Facial Plastic & Reconstructive Surgery. Washington, DC

- 2007 Moderator, Press Conference “The New Neuroimmunology”, Society for Neuroscience, San Diego, CA
- 2007 Health Panel, Governor of Pennsylvania's Conference on Women, Philadelphia, PA
- 2007 Keynote Address. Brain Immune Interactions: Science of the Mind Body Connection. Johns Hopkins/Healthways Health Outcomes Summit, Austin, TX
- 2007 Honored at University of Maryland (Baltimore), Opening of National Library of Medicine’s “*Changing the Face of Medicine: Celebrating America’s Women Physicians*” Traveling Exhibition
- 2008 Panelist, United Nations September 11 Symposium “Beyond the Mind Body Problem.” Sept. 11, 2008
- 2009 Institute of Medicine Summit on Integrative Medicine, Organizing Committee & Panelist, Washington, DC, Feb. 2009
- 2009 Host and creator, PBS Television Special “*The Science of Healing with Dr. Esther Sternberg*”
- 2009 Sunday Forum Special Guest, Washington National Cathedral, Washington, D.C., Nov. 2009
- 2009-2012 Dept. of Defense/USUHS Center for Neuroscience & Regenerative Medicine (CNRM) Award
- 2009-2010 NIH Director’s Challenge Award 2009-2010
- 2010 October 2010 Community Ambassador Award, Donna Karan Urban Zen Foundation, New York, NY
- 2010 Australian Arts and Health Foundation Keynote Speaker & Distinguished Visiting Professor, Brisbane, Newcastle, Melbourne, Adelaide & Sydney, Australia, Oct. 2010
- 2010 Keynote Address, Center for Health Design National Conference, Las Vegas, NV Nov. 2010
- 2010 *Science of Healing* Screening and Panel Discussion with Dr. Andrew Weil, Center for Integrative Medicine Graduation Program, Tucson AZ, Dec. 2010
- 2011 Australian Green Cities Conference Keynote Speaker, Melbourne Australia, Feb. 2011
- 2011 National Museum of Women and the Arts, Washington, DC: *Science of Healing* Screening and Panel Discussion
- 2011 National Center for Complementary and Alternative Medicine Project Award 2011-2012
- 2011 Bjørn Christenson Memorial Lecturer: Dept. Psychology, University of Bergen, Bergen, Norway, Oct. 2011
- 2011 Honorary Degree of Doctor in Medicine (Doctorate Honoris Causa), Trinity College Dublin, Ireland. Awarded on Tercentenary of Trinity College Dublin School of Medicine for “leading Neuroimmunology Research for over 25 years.” Other 2011 Awardees: Charles Dinarello, University of Colorado; Sir Michael Marmot, University College London; Harriet Wallberg-Henriksson, President, Karolinska Institute, Stockholm Sweden; Parveen Kumar, President, Royal Society of Medicine, UK; Lord Ara Warkes Darzi of Denham, UK Under-Secretary for Health, London, England
- 2012 21st Annual Ruth Stricker Mind Body Lecture, University of Minnesota
- 2012 Keynote Lecture: First Lourdes International Scientific Seminar, Lourdes, France
- 2012 Anita B. Roberts "Distinguished Women Scientists at NIH" Lecture: highlighting outstanding research achievements of women scientists at the National Institutes of Health

2012 Distinguished Speaker: XXVII International Conference of the Pontifical Council for Health Care Workers. The Vatican. Vatican City, Nov. 2012

Service/Outreach

NIH Committees Chaired/Co-Chaired

2001- 2012 Chair, Steering Committee, Integrative Neural Immune Program
 2002- 2012 Co-Chair, Steering Committee, Intramural Program on Research on Women's Health, (IPRWH) Office of Intramural Research (OIR) and Office of Research on Women's Health, Office of the Director, NIH
 2002- 2012 Chair, Behavioral Investigators Review Panel, Sub-Committee of NIH Central Tenure Committee, Office of Intramural Research, Office of the Director, NIH

National/International Outreach

Advisory Boards and Panels: Government, Institute of Medicine, Foundations and World Health Organization

1991 Temporary Adviser, World Health Organization. Pathogenesis of the L-tryptophan Eosinophilia Myalgia Syndrome and Toxic Oil Syndrome: Implications for Contamination of the World Food Supply. PAHO, Washington, D.C.
 1990-1991 Ad hoc Member, NIH/NIMH/Library of Congress Human Genome Project Liaison Committee
 1989-1993 Invited Expert, CDC, Atlanta, GA: Exchange of Laboratory Information on L-tryptophan related syndromes
 1989-1990 Arthritis and Musculoskeletal Diseases Interagency Coordinating Committee: NIMH representative
 1992-1994 Special Consultant to Institute of Health (Hygienic) Sciences, Ministry of Health, Japan
 1993-1995 Scleroderma Federation Medical Advisory Board
 1994-2001 Consultant, John D. and Catherine T. MacArthur Foundation Network on Mind-Body Interactions
 1995 Participant, World Health Organization/Pan American Health Organization Collaborating Center for Health of the Elderly "Improving Performance of Influenza and Pneumococcal Vaccines in Adults"
 1997 External reviewer for Institute of Medicine of the National Academy of Sciences
 1997-2005 Reviewer, Wellcome Trust Expert Advisory Panel, London, England
 1997-1999 Advisor, National Library of Medicine Planning Committee, Breath of Life: an Exhibition on Asthma
 1998 Reviewer for Food and Drug Administration's Office of Women's Health.

- 1998 Advisor to NIMH/NIH Center for Scientific Review, Neuroscience Integration Committee
- 1998-2002 National Institutes of Health, National Institute of General Medical Sciences Pharmacology Research Associate (PRAT) Program Advisory Committee
- 1998-2004 Advisor to the National Library of Medicine Exhibition Program
- 1998 Temporary Adviser, World Health Organization: Topic area: Stress and Autoimmunity; WHO meeting on Stress in Neurological Disorders, Athens, Greece
- 1998 Consultant to Institute of Medicine, National Academy of Sciences. "Strategies to Protect Health of Deployed U.S. Forces"
- 1998-2006 Member, Committee on Military Nutrition Research, Institute of Medicine, National Academy of Sciences
- 2000-2002 Invited Board Member, William Wendt Center for Loss and Healing
- 2001 Research Advisor for Texas School system, Coalition for Emotional Literacy, Gonzalo Garza Independent High School, Austin Independent School District, Partners in Education (Austin Chamber of Commerce), Texas Hospital Association
- 2001-2006 Research Advisor, Institute for Research on Unlimited Love, Altruism, Case Western Reserve University, Cleveland, OH
- 2001-2003 Member, National Center on Sleep Disorders Research Plan Task Force
- 2002 Advisor, CDC's National Immunization Program (NIP), Anthrax Vaccine Safety Activity (May, 2002)
- 2002-2010 Member, Board of Directors, Sister to Sister-Everyone Has a Heart Foundation. Chair, Stress Risk Factors Committee, 2003-2010; member International Advisory Committee 2004-2010
- 2003 Observer, Government of Singapore International Advisory Committee for Biomedical Research, Agency for Science and Technology (A*STAR)
- 2003-2004 Guest Member, Government of Singapore International Advisory Committee for Biomedical Research, Agency for Science and Technology (A*STAR)
- 2003-2009 Member, Advisory Board, Academy of Neuroscience for Architecture, American Institute of Architects
- 2006 Advisor, CDC Workshop on Emerging Clostridial Infections (May 2006)
- 2007-2008 Member, Advisory Committee, "Green Community" Exhibition National Building Museum, Washington, DC (opening Oct. 2008)
- 2008-2009 Member, Planning Committee Institute of Medicine Summit on Integrative Medicine
- 2009-present Advisor to Epidaurus II Project, Bethesda National Naval Medical Center and National Intrepid Center of Excellence, Bethesda MD

- 2010 Reviewer, NIH Director's New Innovator Award Program
- 2010 Advisor, John Templeton Foundation
- 2010 TKF Foundation Advisory Committee
- 2010-2013 Judge, The Templeton Prize, John Templeton Foundation
- 2011-present Member, *Arthritis Today* Medical Advisory Board
- 2011 Advisor to Embassy of Greece Health Lecture Series, Washington, DC
- 2011-present American Institute of Architects, Design & Health Initiative Advisory Committee
- 2011-present US Green Building Council Advisory Committee on Green Design and Health
- 2013-present US General Services Administration Healthy Buildings Advisory Committee
- 2012-present Program Committee International Research Congress on Integrative Medicine
- 2013 Expert Advisor, Institute of Medicine Committee on Birthing Environments

Professional Associations

- Member, Society of Neuroimmunomodulation
- Member, International Advisory Committee,
International Society of Neuroimmunology 1995-2002
- President, International Society of Neuroimmunomodulation 1999-2002
- Secretary, International Society of Neuroimmunomodulation 1997-1999
- Member, Society for Neuroscience
- Reviewer, Society for Neuroscience Abstracts for media highlighting 2007-2009
- Member, Endocrine Society
- Member, American Association of Immunologists
- Member, American Society for Clinical Investigation
- Member, American Association for Advancement of Science
- Member, New York Academy of Sciences
- Invited Member, Academy of Behavioral Medicine Research 1998-2000
- Invited founding member, Serotonin Club, FASEB
- Past Member & Fellow, American College of Rheumatology
- Past Member, Psychoneuroimmunology Research Society
- Councillor, Psychoneuroimmunology Research Society 1997-1999
- Member, US General Services Administration, Green Building Advisory Committee 2012-present
- Member, Program Committee International Research Congress on Integrative Medicine 2012-present

Publications/Creative Activity (Published or Accepted)

Scholarly Books and Monographs Authored

1. **Esther M Sternberg** The Balance Within: The Science Connecting Health and Emotions. W.H. Freeman Publishers, New York. Hard cover 2000. Paperback (Holt) 2001; Dutch translation, 2001; Chinese translation 2002; Japanese translation 2006.
2. **Esther M Sternberg** Healing Spaces: The Science of Place and Well-being. Harvard University Press, Cambridge, MA (May 2009; paperback 2010; German translation 2011; Chinese translation expected in 2013).

Scholarly Books and Monographs Edited

1. Stress: Mechanisms and Clinical Implications. Eds: Chrousos, G.P., McCarty, R., Pacak, K., Cizza, G., **Sternberg, E.M.**, Gold, P.W., Kvetnansky, R. *Annals, N.Y. Acad. Sci.*, vol. 771. New York, N.Y., 1995.
2. Neuroimmunomodulation: Molecular Aspects, Integrative Systems and Clinical Advances. Eds, S.M. McCann, **E.M. Sternberg**, J.M. Lipton, G.P. Chrousos, P.W. Gold and C.C. Smith. *Annals N.Y. Acad. Sci.*, New York, N.Y., 1998.
3. Emotions and Disease. An Exhibition at the National Library of Medicine. Exhibition catalogue by Theodore M. Brown. eds. Fee E & **Sternberg EM.** 1997, Friends of the National Library of Medicine. Bethesda, MD.
4. NeuroImmunoModulation: Perspectives at the New Millennium. Ario Conti Georges J.M. Maestroni, Samuel M. McCann, **Esther M. Sternberg**, James M. Lipton, Craig C. Smith. *Annals N.Y. Acad. Sci.*, vol. 917 New York, N.Y., 2000.
5. Neuroendocrine and Neural Regulation of Autoimmune and Inflammatory Disease. Molecular, Systems, and Clinical Insights. Eds. **EM Sternberg**, FC Haour, CC Smith. *Annals N.Y. Acad. Sci.*, Vol. 992 New York, N.Y., 2003.
6. Handbook of Psychophysiology, 3rd Edition. Eds. J Cacioppo, L Tassinary and G Berntson; **EM Sternberg**: Section Editor, Cellular and Humoral Systems. MIT Press. 2006.
7. Neural and neuroendocrine mechanisms in host defense and autoimmunity. Eds. J Welsh, M Meagher and **EM Sternberg.** Kluwer Press, 2006.
8. Glucocorticoids and Mood. Eds. L Judd and **EM Sternberg.** *Annals N.Y. Acad. Sci.*, New York, N.Y., 2009.

Chapters and Reviews

1. **Sternberg, E.M.** Pathogenesis of scleroderma. The interrelationship of the immune and vascular hypotheses. *in:* "The Year in Immunology", Vol. 4, *ed.* Cruse, J.M. S. Karger, Basel, 1985, pp. 69-80.
2. **Sternberg, E.M.** Modulation of IFN gamma induction of Ia expression: implications for mechanisms of signal transduction. *in:* "The Year in Immunology Today", Vol. 2, *eds.* Cruse, J.M. and Lewis, R.E., Jr. S. Karger, Basel, 1986, pp. 152-163.

3. **Sternberg, E.M.** and Parker, C.W. Immunopharmacologic aspects of lymphocyte regulation. *in: "Lymphocyte Structure and Function," ed. Marchalonis, J.J. Marcel Dekker, Inc., New York, 1988, pp. 1-53.*
4. **Sternberg, E.M.** Monokines, Lymphokines and the brain. *in: "The Year in Immunology" Vol. IV, eds. Cruse, J.M. and Wedner, H.J. S. Karger, Basel, Vol. 5, 205-217, 1988.*
5. **Sternberg, E.M.** Pathogenetic approach to treatment of progressive systemic sclerosis. *in: "Concepts in Immunopathology", Vol. 7, ed: Cruse, J.M. S. Karger, Basel, Vol. 7, 1989.*
6. **Sternberg, E.M.,** Wilder, R.L., Chrousos, G.P., Gold, P.W., Young III, W. Bernardini, S. R., Calogero, A. E., Hill, J.M., Kamilaris, T., and Listwak, S.J. The role of the hypothalamic-pituitary-adrenal axis in susceptibility to arthritis. *in: "The IIIrd International Congress on Challenges of Hypersecretion: ACTH, Cushing's Syndrome and Other Hypercortisolemic States." eds. Ludecke, D.K. Chrousos, G.P. and Tolis, G.; Raven Press, NY, 1990, pp. 183-188.*
7. **Sternberg, E.M.,** Wilder, R.L., Gold, P.W., Chrousos, G.P. A defect in the Central component of the immune system-hypothalamic-pituitary-adrenal axis loop is associated with susceptibility to experimental arthritis and other inflammatory diseases. *Annals of the N.Y. Acad. Sci.: Symposium on Neuropeptides and Immuno peptides: Messengers in a Neuroimmune Axis.* Eds. O'Dorisio, M.S. and Panerai, A.E. 594, 289-292, 1990.
8. Wilder, R.L. and **Sternberg, E.M.** Neuroendocrine hormonal factors in rheuma-toid arthritis and related conditions. *Current Opinion in Rheumatology, 2(3) 1990.*
9. **Sternberg, E.M.,** Wilder, R.L., Chrousos, G.P., and Gold., P.W. The Stress response and the pathogenesis of arthritis. *in: "Role of Neuropeptides in Stress Pathogenesis in Systemic Disease." eds. Kaufmann, P.G., McCubbin, J.A. and Nemeroff, C.B. San Diego, Academic Press, 1991.*
10. Wilder, R.L., Crofford, L.J., and **Sternberg, E.M.** Neuroendocrine aspects of autoimmunity. *in: "Autoimmunity and Molecular Biology", eds. Brahn, E. 1991.*
11. **Sternberg, E.M.,** and Wilder, R.L. Corticosteroids. *in: "Arthritis and Allied Conditions." eds. McCarty, D.J., Koopman, W.J., Philadelphia: Lea & Febiger 1992;665-682.*
12. **Sternberg E.M.** Interdisciplinary lines of investigation and implications for the pathogenesis of the L-tryptophan eosinophilia myalgia syndrome. *in: "Toxic Oil Syndrome and Eosinophilia-Myalgia Syndrome: Pursuing Parallels in Pathogenesis", Report on a WHO Meeting, Washington, D.C., 8-10 May, 1991.*
13. **Sternberg E.M.** Discussant: (1) Characterization and regulation of CRF receptors in the central nervous, endocrine and immune systems. (2) Expression of CRF mRNA in response to stress. (3) Peripheral anti-inflammatory actions of CRF. *in: "Corticotropin-*

- Releasing Factor", Eds. Chadwick, D.J., Marsh, J., Ackrill, K.; CIBA Foundation Symposium 172; John Wiley and Sons; Chichester; pp.105-106; 192-193; 270-276, 1993.
14. DeRijk R and **Sternberg E.M.** Corticosteroid action and neuro-immune interactions. *in: Brain corticosteroid receptors: Studies on the mechanism, function and neurotoxicity of corticosteroid action.* ed. de Kloet, R. *N.Y. Acad. Sci.* pp. 33-41, 1994.
 15. **Sternberg E.M.**, Licinio J. Overview of Neuroimmune Stress Interactions. Implications for Susceptibility to Inflammatory Disease. *in: "Stress: Mechanisms and Clinical Implications," eds.* Chrousos, G.P., McCarty, R., Pacak, K., Cizza, V., Sternberg, E.M., Gold, P.W., Kvetnansky, R. *N.Y. Acad. Sci.* , New York, NY, pp. 364-371, 1995.
 16. Michelson D, Gold PW, **Sternberg EM.** The stress response in severe illness: neuroendocrine and immune interactions. *in: "New horizons: The science and practice of acute medicine. Organ interactions in critical illness."* Williams and Wilkins, 1994, 2:426-431.
 17. **Sternberg EM.** Neuroendocrine factors in susceptibility to inflammatory disease: Focus on the hypothalamic-pituitary-adrenal axis. *Horm Res* 1995; 43:159-61.
 18. **Sternberg EM.** Environmental scleroderma.*in: Systemic Sclerosis.* eds. P. Clements, D. Furst. Williams & Wilkins, Baltimore, 1995.
 19. **Sternberg EM.** Pathogenesis of the eosinophilia myalgia syndrome. *in: Proceedings of the 8th International Society for Tryptophan Research Conference.* Plenum Press. 1995.
 20. **Sternberg EM.** Inflammatory disease and rheumatoid arthritis *in: "Mind-Body Interactions and Disease. Proceedings of a conference on stress, immunity and health sponsored by the National Institutes of health."* Ed. Hall NRS, Altman F, Blumenthall SJ. Health Dateline Press. 1995 pp.105-115.
 21. Gold PW, **Sternberg EM**, Chrousos GP. Depression as a Dysregulation of the Stress Response: Evidence From Clinical Studies And Studies of the Mechanism of Action of Antidepressant Agents. *In: Catecholamines and other Neurotransmitters in Stress*, Kvetnansky, Rand, McCarty, eds., Oxford University Press, Oxford, 1995.
 22. **Sternberg EM** and Smith CC. Overview of the 3rd International Congress of the Society for Neuroimmunomodulation. *Neuroimmunomodulation* 1996;3:323-324.
 23. **Sternberg EM.** Neuroendocrine immune interactions: Principles and relevance to systemic lupus erythematosus *in: Dubois' Lupus Erythematosus, Fifth Edition*, eds. J.J. Wallace, B.H. Hahn, Williams & Wilkins, Baltimore 1997; 323-338.
 24. Licinio J, **Sternberg EM:** Neuroendocrine-Immune Interactions: The Role of HPA/IL-1 Function in Disease Susceptibility. *In: Handbook of Endocrinology*, Kaplan H, Gass GH, eds. CRC Press: Boca Raton, 1996, pp 261-269.

25. **Sternberg EM.** Pathogenesis of L-Tryptophan eosinophilia myalgia syndrome. *Adv Exp Med Biol.* 1996;398:325-330.
26. DeRijk RH, **Sternberg EM.** Corticosteroid resistance and disease. *Annals of Medicine.* 1997;29:79-82.
27. **Sternberg EM** Emotions and disease: from balance of humors to balance of molecules. 1997 *Nature Medicine* 3(3):264-267.
28. **Sternberg EM** and Gold PW. The mind-body interaction in disease. 1997 *Scientific American*, Special issue (May), 7(1):8-15.
29. Smith, C. and **Sternberg, E.M.** Neuroimmune Interactions: An overview of the conference and the field. in "Neuroimmunomodulation. Molecular Aspects, Integrative Systems and Clinical Advances." eds. S.M. McCann, E.M. Sternberg, J.M. Lipton, G.P. Chrousos, P.W. Gold and C.C. Smith. *Annals N.Y. Acad. Sci.* , New York, N.Y., 1998.
30. **Sternberg EM** Cytokines and the Brain. Neural-Immune Interactions in Health and Disease. Perspectives Series: Sternberg EM (Series Editor). 1997. *J. Clin. Invest.* 100(11):1-7.
31. DeRijk RH, **Sternberg EM** and de Kloet ER. Glucocorticoid receptor function in health and disease. ed. P.O. Kohler *Current Opinion in Endocrinology & Diabetes.* 4(3) 1997.
32. **Sternberg EM.** Invited Book review of "The Powerful Placebo: From Ancient Priest to Modern Physician." by Arthur K. and Elaine Shapiro; Johns Hopkins University Press. 1998 *Science* 280:1901-1902.
33. **Sternberg EM.** Stress and Autoimmune Disease in "Stress in Neurological Disorders." World Health Organization, Geneva, 1998.
34. **Sternberg EM.** Interaction between the Immune and Neuroendocrine Systems. *Progress in Brain Research.*, 1999. 122:35-42.
35. Ligier, S., **Sternberg, EM** Neuroendocrine host factors and inflammatory disease susceptibility. *Environmental Health Perspectives* 1999. 107 (suppl. 5): 701-707.
36. Wong, M-L, **Sternberg, EM.** Assays for Understanding Neuroimmune Interactions. *Archives of Neurology.* 2000, 57:948-952.
37. Ligier S. and **Sternberg E.M.** The Immune Response. In Fink, G. The Encyclopedia of Stress. Academic Press 2000, 2:528-530.
38. Jafarian-Tehrani M. and **Sternberg, E.M.** Neuroendocrine-immune Modulation of Autoimmune/inflammatory Disease. *Frontiers in Hormone Research.* 2002: 29: 69-82.
39. Jafarian-Tehrani M and **Sternberg, EM.** Animal Models of Neuroimmune Interactions in Inflammatory Diseases. *J. Neuroimmunol.* 1999. 100: 13-20.

40. **Sternberg EM.** Beyond Folklore: Stress Can Make You Sick. *Cerebrum* 2000. 2(1):133-153.
41. **Sternberg EM.** Overstressing their point? Book review of Mind, Immunity and Health: The Science of Psychoneuroimmunology by P. Evans, F. Hucklebridge, A. Clow Free Assoc. Books 2000 in *Trends in Immunology* 2001. 22 (2):112
42. Ligier, S., **Sternberg, EM.** The neuroendocrine system and rheumatoid arthritis: focus on the hypothalamic-pituitary-adrenal axis. in: Psychoneuroimmunology, 3rd edition. Eds: R. Ader, D.L. Felten, and N. Cohen. Academic Press, San Diego, 2001. vol. 2 pp.449-469.
43. **Sternberg EM.** Neuroendocrine regulation of autoimmune/inflammatory disease. *J. Endocrinology* 2001. 169, 429-435.
44. Tonelli L, Webster JI, Rapp KL, **Sternberg EM.** Neuroendocrine Responses Regulating Susceptibility and Resistance to Autoimmune/Inflammatory Disease in Inbred Rat Strains. *Immunobiology of the Rat. Immunological Reviews.* 2001. Vol. 184, pp: 203-211.
45. **Sternberg EM,** Piecing Together a Puzzling World. *Science.* 2001 Vol. 292: 1661-1662.
46. Vitkovic L, Maeda S, **Sternberg EM.** Anti-inflammatory Cytokines' Expression and Action in the Brain. *Neuroimmunomodulation.* 9:295-312. 2001.
47. Moghaddam M and **Sternberg EM.** Neuroendocrine stress and inflammatory disease: from animal model to human disease. In: *New Foundation of Biology.* Ed. I Berczi and Gorczyński, RM. Elsevier Science B.V. 2001. pp 115-120.
48. **Sternberg EM** and Komarow HD. Neuroendocrine immune interactions: Principles and relevance to systemic lupus erythematosus in: Dubois' Lupus Erythematosus, Sixth Edition, eds. J.J. Wallace, B.H. Hahn, Lippincott Williams & Wilkins, Philadelphia, 2002. pp. 319-337.
49. Eskandari F and **Sternberg, EM.** Neuroendocrine mediators of placebo effects on immunity. in The Science of the Placebo. Ed. Guess HA, Kleinman A, Kusek JW, Engel LW. *BMJ Books.* 169-182, 2002.
50. Benedetti F, Czajkowski, SM, Kitt, CA, Stefanek M, and **Sternberg, EM.** Recommendations for Research to Further Elucidate the Nature of the Placebo Effect. The Science of the Placebo. Ed. HA Guess, A Kleinman, JW Kusek, LWEngel. *BMJ Books.* 286-293 2002.
51. Eskandari F and **Sternberg EM.** Neural-immune interactions in health and disease. *Ann NY Acad Sci.* 2002. 966:20-27.
52. Webster JI, Tonelli L, **Sternberg EM.** Neuroendocrine Regulation of Immunity. *Annual Review of Immunology.* 2002. 20:125-163

53. **Sternberg, EM** and Gold, PW. The Mind-Body Interaction in Disease. *Scientific American*. in Special Edition: The Hidden Mind, 2002 v. 12 (1), pp: 82-29.
54. **Sternberg EM**. Invited Commentary: Voodoo Death, Walter B. Cannon, 1942: a perspective from the vantage point of 60 years. *Am. J Pub Health*. 92 (10); 1564-1565, 2002.
55. **Sternberg EM**, Webster, J. Neural Immune Interactions in Health and Disease. pp.1021-1042 in *Fundamental Immunology, Fifth Edition* Ed. Paul, WE. Lippincott Williams & Wilkins, Philadelphia. 2003.
56. Eskandari F, Webster JI and **Sternberg EM**. Neural immune pathways and their connection to inflammatory diseases. *Arthritis Res Ther* 5:251-265, 2003.
57. **Sternberg EM**. Dissecting neural and neuroendocrine pathways that transducer signals from the outside world to a balance within. In: *Essays in Social Neuroscience*. Social Neuroscience Series Ed. John Cacioppo and Gary G. Berntson. MIT Press, Cambridge MA, pp 29-39, 2004.
58. Butts C and **Sternberg EM**. Different approaches to understanding autoimmune rheumatic diseases: the neuroimmunoendocrine system. In: *Best Practice & Research - Clinical Rheumatology*. *Balliere's Rheumatology Reviews*, Volume 18(2): 125-139, 2004.
59. Webster JI and **Sternberg EM**. Role of the hypothalamic-pituitary-adrenal axis, glucocorticoids and glucocorticoid receptors in toxic sequelae of exposure to bacterial and viral products. *J Endocrinology*, 181(2), 207-211, 2004.
60. Webster JI, Moayeri M and **Sternberg EM**. Novel Repression of the glucocorticoid receptor by anthrax lethal toxin. *Ann NY Acad Sci*, 1024:9-23, 2004.
61. Webster, JI, Tonelli, L and **Sternberg, EM**. Neural Immune Interactions in Inflammatory/Autoimmune Disease. In "*Clinical Neuroimmunology 2nd Edition*" (Eds. J Antel, G Birnbaum, H-P Hartung & A Vincent) Oxford University Press. p. 65-76, 2005.
62. Webster, JI and **Sternberg, EM**. Neuroendocrine host factors in susceptibility and resistance to autoimmune/inflammatory disease. In "*Neuroimmunoendocrinology*" (eds. G. Chrousos and V. Geenen). 2004 Marcel Dekker Inc, ISBN: 0-8247-5060-8, chapter 20 pp. 393-416.
63. Tonelli, LH, Postolache, TT and **Sternberg, EM**. Inflammatory genes and neural activity: involvement of immune genes in synaptic function and behavior. *Frontiers in Bioscience* 10, 675-680, 2005.
64. **Sternberg EM**. Lobster Tales. (Invited book review) *Science*, 305:1914, 2004.
65. Marques-Deak A, Cizza G and **Sternberg EM**. Brain-immune interactions and disease susceptibility. *Mol. Psychiatry* 1-12, 2005.

66. **Sternberg, EM.** It's a Wrap. (Invited movie review, "Mummy: The Inside Story" *Science*, 308(5727):1415, 2005.
67. Gold SM, Mohr DC, Huitinga I, Flachenecker P, **Sternberg EM**, Heesen C. The role of stress-response systems for the pathogenesis and progression of multiple sclerosis. *Trends in Immunology*, 26(12):644-52, 2005.
68. **Sternberg EM.** Neural regulation of innate immunity: a coordinated non-specific host response to pathogens. *Nature Rev. Immunol.*, (invited review) 6(4):318-28, 2006.
69. Marques-Deak A and **Sternberg EM.** The Biology of Positive Emotions, in The Science of Altruism and Health: Is it Good to be Good? Ed. Stephen G. Post, Oxford University Press, p.458, 2007.
70. Gorby HE, Butts C and **Sternberg EM.** Neuroendocrine immune interactions: Principles and relevance to systemic lupus erythematosus in: Dubois' Lupus Erythematosus, Seventh Edition, eds. J.J. Wallace, B.H. Hahn, Lippincott Williams & Wilkins, Philadelphia, 2007, pp. 286-298.
71. Gorby HE and **Sternberg EM.** The neuroendocrine system and rheumatoid arthritis: focus on the hypothalamic-pituitary-adrenal axis. in: Psychoneuroimmunology, 4th edition. Eds: R. Ader, and N. Cohen. Academic Press, San Diego, 2007, Vol. 1, pp. 193-216.
72. **Sternberg, EM.** A Compassionate Universe? (Invited book review of "The Universe in a Single Atom: The convergence of science and spirituality" by the XIV Dalai Lama, Tenzin Gyatso). *Science*, 311(5761):611-612, 2006.
73. Thayer, JF and **Sternberg, EM.** Beyond Heart Rate Variability: Vagal Regulation of Allostatic Systems. *Annals N.Y. Acad. Sci.* 1088:361-72, 2006.
74. **Sternberg EM** and Wilson, M. Neuroscience and architecture: Seeking Common Ground. (invited Leading Edge Commentary), *Cell* 127:239-242, 2006.
75. Marques A, Cizza G, **Sternberg E.** Brain-Immune Interactions and Implications for Psychiatric Disorders. *Brazilian J. Psychiatry* 29 (Suppl I S27):32, 2007.
76. **Sternberg EM**, Silverman MN and Cizza G. The Neuroendocrine System and Rheumatoid Arthritis: Insights from Anti-TNF Therapy. *J. Rheumatol.*34:1443-1445 (invited Editorial) 2007.
77. Silverman M and **Sternberg EM.** Neuroendocrine-immune interactions in rheumatoid arthritis: Mechanisms of glucocorticoid resistance. *Neuroimmunomodulation*. Invited review 15(1):19-28, 2008.
78. Tait AS, Butts C, **Sternberg EM.** The role of glucocorticoids and progestins in inflammatory, autoimmune, and infectious disease. *J Leukoc Biol.* 2008 84(4):924-31.

79. Butts CL, **Sternberg EM** Neuroendocrine factors alter host defense by modulating immune function. *Cellular Immunology* 252:7-15, 2008.
80. Webster Marketon, JI & Sternberg, EM (2008) Neuroendocrinology of Inflammatory Disorders. In The Hypothalamus-Pituitary-Adrenal Axis, Neuroimmune Biology. (ed. A. del Rey, G. Chrousos and H.O. Besedovsky) Elsevier. ISBN: 978-0-444-53040-0, Volume 7, Chapter 17 pp. 321-350.
81. Marques, AH, Silverman, MN, **Sternberg, EM**. (2009) Glucocorticoid Dysregulations and their Clinical Correlates: From Receptors to Therapeutics. *Annals of New York Academy of Sciences*. Oct;1179:1-18.
82. Thayer, JF & **Sternberg EM**. (2009) In Search of the Immunological Homunculus: Neural Concomitants of Inflammation-- Focus on the Vagus Nerve. *NeuroImage Sep;47(3):908-10*.
83. Marques, AH & **Sternberg, EM**. (2010) El Efecto de las Emociones Sobre la Salud. *National Geographic Espana*. Edicion Especial 105-111 (Effect of Emotions on Health. *National Geographic, Spain*).
84. Marques, AH, Silverman, MN, **Sternberg, EM**: (2010) Evaluation of the Stress-related system applying non-invasive methodologies: Salivary cortisol, Heart Rate Variability and Measurements of Neuroimmune Biomarkers in Sweat. *Neuroimmunomodulation* 17(3):205-8. Epub 2010 Feb 4.
85. Silverman, MN, Heim, CM, Nater, U, Marques, A and **Sternberg, EM**. (2010) Endocrine, Neural and Immune Correlates of Fatigue. *Physical Medicine and Rehabilitation*. May;2(5):338-46.
86. Silverman MN and **Sternberg EM**. (2010) Matching therapy to body rhythms: an endocrine approach to treating rheumatoid arthritis. *J Rheumatol*. Oct;37(10):1981-2). (Editorial)
87. Thayer JF, **Sternberg EM** (2010) Neural aspects of immunomodulation: Focus on the vagus nerve. *Brain Behav Immun*, Nov;24(8):1223-8. Epub 2010 Jul 30.
88. Webster Marketon, JI and **Sternberg, EM**. (2010) The Glucocorticoid Receptor - A Revisited Target for Toxins? *Toxins*, 2 1357-1380.
89. Marketon JI, **Sternberg EM** (2010) The glucocorticoid receptor an under-appreciated target for toxins. *J Nat Toxins* 2(6):1357-80. Epub 2010 Jun 9.
90. Butts C and **Sternberg EM**. (2011) Neuroendocrine immune interactions: Principles and relevance to systemic lupus erythematosus in: Dubois' Lupus Erythematosus, Eighth Edition, eds. J.J. Wallace, B.H. Hahn, Lippincott Williams & Wilkins, Philadelphia.

92. Thayer JF, Loerbroks A, **Sternberg EM**. Inflammation and cardiorespiratory control: The role of the vagus nerve. 2011 *Respir Physiol Neurobiol*. Sep 30;178(3):387-94 Epub 2011 May 27.
93. **Sternberg EM** A self-fulfilling prophecy: linking belief to behavior. 2011 *Ann NY Acad Sci* in: Perspectives on the Self, Ed D. Braaten, RE Cooney, vol. 1234:98-99.
94. **Sternberg EM**. 2011 Low Cost and Considerable Gains. Design with the Other 90%: Cities. "Books et al." Section *Science Magazine*. 334:906-907.
95. Bevans M and **Sternberg EM**. 2012 Caregiver Burden, Stress, and Health Effects Among Family Caregivers of Adult Cancer Patients. Grand Rounds at the National Institutes of Health. *JAMA* 307(4):398-403.
96. Silverman MN and **Sternberg EM**. 2012 Glucocorticoid regulation of inflammation and its behavioral and metabolic correlates: from HPA axis to glucocorticoid receptor dysfunction. *Ann N Y Acad Sci* (Proceedings of the 8th International Society for NeuroImmunoModulation Congress) 1261:55-63.
98. Silverman MN, Prado EBA, Thayer JF, **Sternberg EM**, Muniz RK and Marques AH. Psychoneuroimmunology. In: CLÍNICA PSIQUIÁTRICA (Textbook of Clinical Psychiatry). Ed: Euripedes Constantino Miguel, Wagner Farid Gattaz e Valentim Gentil Filho, Ed Malone, Sao Paulo, Brazil. (2012)
99. Silverman MN and **Sternberg EM**. Neuroendocrine Regulation of the Immune Response. Invited Review Article for *Ann NY Acad Sci* 2013 "Year in Immunology" (in preparation).

Peer Reviewed Original Research Publications

1. **Sternberg, E.M.**, Van Woert, M., Young, S., Magnussen, I., Baker, H., Gauthier, S., Osterland, C. K. Development of a scleroderma-like illness during therapy with L-5-hydroxytryptophan and carbidopa. *N. Engl. J. Med.*, 303, 782-787, 1980.
2. **Sternberg, E.M.** and Parker, C.W. Fever of unknown origin in a 71 year-old woman. Clinicopathologic Conference. *Am. J. Med.*, 79, 373-384, 1985.
3. **Sternberg, E.M.**, Trial, J., Parker, C.W. Effect of serotonin on murine macrophages: suppression of Ia expression by serotonin and its reversal by 5-HT₂ serotonergic receptor antagonists. *J. Immunol.*, 137, 276-282, 1986.
4. **Sternberg, E.M.**, Wedner, H.J., Leung, M.K. and Parker, C.W. Effect of serotonin (5-HT) and other monoamines on murine macrophages: modulation of Interferon-gamma induced phagocytosis. *J. Immunol.*, 138, 4360-4365, 1987.
5. **Sternberg, E.M.** and Parker, C.W. Sudden death in a 22 year-old woman with SLE. Clinicopathological Conference. *Am. J. Med.*, 82, 65-72, 1987.

6. Smith, C.C., Hallberg, P.L., **Sternberg, E.M.**, Martin, B.M., Pert, C.B., and Ruff, M.R. Tritiated D-ala peptide T binding: A pharmacologic basis for the design of drugs which inhibit HIV receptor binding. *Drug Development Research*, 15:371-379, 1988.
7. **Sternberg, E.M.**, Hill, J.M., Chrousos, G.P., Kamilaris, T., Listwak, S.J., Gold, P.W., and Wilder, R. L. Inflammatory mediator-induced hypothalamic-pituitary-adrenal axis activation is defective in streptococcal cell wall arthritis susceptible Lewis rats. *Proc. Natl. Acad. Sci. (USA)*, 86, 2374-2378, 1989.
8. **Sternberg, E.M.**, Young III, W.S. Bernardini, R., Calogero, A. E., Chrousos, G.P., Gold, P.W. and Wilder, R. L. A central nervous system defect in biosynthesis of corticotropin-releasing hormone is associated with susceptibility to streptococcal cell wall arthritis in Lewis rats. *Proc. Natl. Acad. Sci., (USA)*, 86, 4771-4775, 1989.
9. **Sternberg, E.M.** and Wilder, R.L. The central nervous system - immune system feedback loop and arthritis susceptibility. *Progress NeuroEndocrinImmunology*, 2, 102-108, 1989.
10. Silver, R.M., Heyes, M.P., Maize, J.C., Quearry, B., Vionnet-Fuasset, M. and **Sternberg, E.M.** Scleroderma, fasciitis and eosinophilia associated with ingestion of L-tryptophan. *N. Engl. J. Med.* 322:874-881, 1990.
11. Crofford, L.J., Rader, J.I., Dalakas, M.C., Hill, R.H., Jr., Brady, L.S., Page, S.W., Needham, L.L., Heyes, M.P., Wilder, R.L., Gold, P.W., Illa, I., Smith, C., and **Sternberg, E.M.** L-tryptophan implicated in human eosinophilia-myalgia syndrome causes fasciitis and perimyositis in the Lewis rat. *J. Clin. Invest.* 86:1757-1763, 1990.
12. Analysis of L-tryptophan for the etiology of Eosinophilia Myalgia Syndrome. *MMWR*, 39 (34): 589-591, 1990.
13. Calogero, A.E., **Sternberg, E.M.**, Bagdy, G., Smith, C., Bernardini, R., Aksentijevich, S., Wilder, R.L., Gold, P.W., and Chrousos, G.P. Neurotransmitter-induced hypothalamic-pituitary-adrenal axis responsiveness is defective in inflammatory disease-susceptible Lewis rats: In vivo and in vitro studies suggesting globally defective hypothalamic secretion of corticotropin-releasing hormone. *Neuroendocrinology*, 55:600-608, 1992.
14. Silver, R.M., Maize, J.C., Heyes, M.P., and **Sternberg, E.M.** Treatment of the eosinophilia-myalgia syndrome, *N. Engl. J. Med.* Letter, 323(6):418, 1991.
15. Wilder, R.M., Case, J.P., Crofford, L.J., Kumkumian, G.K., Lafyatis, R., Remmers, E.F., Sano, H., **Sternberg, E.M.**, and Yocum, D. E. Endothelial cells and the pathogenesis of rheumatoid arthritis in humans and streptococcal cell wall arthritis in Lewis rats. *J. Cell. Biochem.* 45, 1-5, 1991.
16. DeSchryver-Kecskemeti, K., Gramlich, T.L., Crofford, L.J., Rader, J.I., Page, S.W., Needham, L.L., Hill, Jr., R.H., and **Sternberg, E.M.** Mast cell and eosinophil infiltration in intestinal mucosa of Lewis rats treated with L-tryptophan. *Mod. Pathol.* 4 (3): 354-357, 1991.

17. Cash, J. J., Crofford, L.J., Gallucci, W.T., **Sternberg, E.M.**, Gold, P.W., Chrousos, G.P., and Wilder, R.L. Pituitary-adrenal axis responsiveness to ovine CRH in patients with rheumatoid arthritis treated with low-dose prednisone. *J. Rheumatol.* 1692-95, 1991.
18. **Sternberg, E.M.**, Glowa, J., Smith, M., Calogero, A.E., Listwak, S.J., Aksentijevich, S., Chrousos, G. P., Wilder, R. L. and Gold, P.W. Corticotropin releasing hormone related behavioral and neuroendocrine responses to stress in Lewis and Fischer rats. *Brain Res.*, 570 (1):54-60, 1992.
19. Smith, C.C., Hauser, E., Renaud, N.K., Leff, A., Aksentijevich, S., Chrousos, G.P., Wilder, R.L., Gold, P.W., and **Sternberg, E.M.** Increased hypothalamic [3H] flunitrazepam binding in hypothalamic-pituitary-adrenal axis hyporesponsive Lewis rats. *Brain Res.*, 569 (2):295-299, 1992.
20. Burnet, P., Mefford, I.N., Smith, C.C., Chrousos, G.P., Gold, P.W. and **Sternberg, E.M.** Hippocampal [³H]-8-hydroxy-2, 3-(diphenylalanine)-tetralin binding site densities, serotonin receptor (5-HT_{1A}) messenger ribonucleic acid abundance and serotonin levels parallel the activity of the hypothalamopituitary-adrenal axis in rat, *J. Neurochemistry*, 59:1062-1070, 1992.
21. Zelazowski, P., Smith, M., Gold, P.W., Chrousos, G.P., Wilder, R.L., and **Sternberg, E.M.** In vitro regulation of pituitary ACTH secretion in inflammatory Disease susceptible Lewis (LEW/N) and inflammatory disease resistant Fischer (F344/N) rats, *Neuroendocrinology* 56:474-82, 1992.
22. Glowa, J.R., **Sternberg, E.M.**, and Gold, P.W. Differential behavioral Response in LEW/N and F344/N Rats: Effects of corticotropin releasing hormone, *Progress in Neuropsychopharmacology and Biological Psychiatry*, in 16:549-560, 1992.
23. Hertzman, P.A., Maddoux, G.L., **Sternberg, E.M.**, Heyes, M.P., Mefford, I.N., Kephart, G.M., Gleich, G.J. Repeated coronary artery spasm in a patient with the eosinophilia myalgia syndrome: deposition of eosinophil granule major basic protein in the heart. *J. Am. Med. Assoc.* 267 (21): 2932-2934, 1992.
24. Glowa, J.R., Geyer, M.A., Gold, P.W., and **Sternberg, E.M.** Differential startle amplitude and corticosterone response in LEW/N and F344/N rats, *Neuroendocrinology*, 56:719-723, 1992.
25. **Sternberg, E.M.**, Chrousos, G.P., Wilder, R.L., and Gold, P.W. The stress response and regulation of inflammatory disease, *Annals Int. Med.* 117:854-866, 1992.
26. Aksentijevich S., Whitfield, H.J., Young, W.S., 3rd, Wilder, R.L., Chrousos G.P., Gold, P.W. and **Sternberg, E.M.** Arthritis-susceptible Lewis rats fall to emerge from the stress-hyporesponsive period. *Dev. Brain Res.*, 65:115-118, 1992.

27. Silver, K., McKinley, E.A., Smith, B., Quearry, Y., Harati, **Sternberg, E.M.**, and Heyes, M.P. Tryptophan metabolism via the kynurenine pathway in patients with the eosinophilia myalgia syndrome. *Arth. Rheum.* 35:1097-1105, 1992.
28. Love, L. A., Rader, J. L. Crofford, L.J. Raybourne, R. B., Principato, M.A. Page, S.W., Trucksess, M.W., Smith, M.J., Dugan, E.M., Turner, M.L., Zelazowski, E., Zelazowski, P., and **Sternberg, E.M.** Pathological and immunological effects of ingesting L-tryptophan, and 1,1'-ethylidene bis[tryptophan] in Lewis rats. *J. Clin. Invest.* 91:804-811, 1993.
29. **Sternberg, E.M.** Editorial: Hyperimmune fatigue syndromes: Diseases of the stress response? *J. Rheumatology*, 20:418-421, 1993.
30. Brenneman, D.E., Page, S.W., Schultzberg, M., Thomas, F.S., Zelazowski, P., Burnet, P., Avidor, R., and **Sternberg, E.M.** A decomposition product of a contaminant implicated in L-tryptophan eosinophilia myalgia syndrome affects spinal cord neuronal cell death and survival through stereospecific, maturation, and partly interleukin-1-dependent mechanisms. *J. Pharm. Exp. Therapeutics*, 266(2);1029-1035, 1993.
31. Goldstein, D.S., Garty, M. Bagdy, G., Szemerédi, K., **Sternberg, E.M.**, Listwak, S., Pacak, K., Deka-Starosta, A., Hoffman, A. Chang, P.C., Stull, R., Gold, P.W. and Kopin, I. Role of CRH in glucopenia-induced adrenomedullary activation in rats. *J. Neuroendocrinol.* 5:475-486, 1993.
32. Zelazowski, P., Patchev, V. K., Zelazowski, E.B., Chrousos, G.P., Gold, P.W. and **E.M. Sternberg.** Release of hypothalamic corticotropin-releasing hormone (CRH) and arginine vasopressin (AVP) by interleukin 1 α and α MSH: studies in rats with different susceptibilities to inflammatory disease. *Brain Research*, 58:106-110, 1993.
33. Brady, L.S., Page, S.W., Thomas, F.S., Rader, J.L., Lynn, A.B., Polterak, B., Zelazowski, E., Crofford, L.J., Zelazowski, P., Smith, C., Raybourne, R.B., Love, L.A., Gold, P.W., and **Sternberg, E.M.** 1,1'-ethylidenebis[L-tryptophan] (EBT), a contaminant implicated in L-tryptophan eosinophilia myalgia syndrome, suppresses mRNA expression of hypothalamic corticotropin-releasing hormone in Lewis (LEW/N) rat brain. *Neuroimmunomodulation*, 1:59-65, 1994.
34. **Sternberg, E.M.**, Smith, C.C., Omeljaniuk, R.J., Whitfield, Jr., H.J., Aksentijevich, S., Fellows, M., Zelazowski, E., and Gold, P.W. Differential type 1 (mineralocorticoid) and type 2 (glucocorticoid) receptor expression in Lewis and Fischer rats. *Neuroimmunomodulation*, 1:66-73, 1994.
35. Burnet, P.W. J., Michelson, D., Smith, M.A., Gold, P.W. and **Sternberg, E.M.** The effect of chronic imipramine administration on the densities of 5-HT_{1A} and 5-HT₂ receptors and the abundancies of 5-HT receptor and transporter mRNA in the cortex, hippocampus and dorsal raphe of three strains of rat. *Brain Research*, 638:311-324, 1994.
36. Michelson, D., Page, S.W., Casey, R., Trucksess, M., Love, L., Milstein, S., Wilson, C., Massaquoi, S., Crofford, L., Hallett, M., Gold, P.W., **Sternberg, E.M.** Eosinophilia myalgia

- syndrome and related disorders associated with exposure to L-5-hydroxytryptophan. *J. Rheumatol.* 21:2261-5, 1994.
37. Michelson, D., Stone, L., Galliven, E., Magiakou, M.A., Chrousos, G.P., **Sternberg, E.M.**, Gold, P.W. Multiple sclerosis is associated with alterations in hypothalamic pituitary adrenal axis function. *J. Clin. Endocrinol. Metabol.*, 79(3):848-853, 1994.
 38. Smith, C.C., Cizza, G., Gomez, M., Greibler, C., Gold, P.W., **Sternberg, E.M.** The estrous cycle and pituitary-ovarian function in the Lewis and Fischer rat. *Neuroimmunomodulation* 1(4):231-235, 1994.
 39. Michelson, D., Misiewicz-Poltorak, B., Raybourne, R.B., Gold, P.W., **Sternberg, E.M.** Imipramine reduces the local inflammatory response to carrageenan. *Agents and Actions.* 42:25-28, 1994.
 40. Cizza, G., **Sternberg, E.M.** The role of the hypothalamic pituitary adrenal axis in susceptibility to autoimmune/inflammatory disease. *ImmunoMethods* 5:73-78, 1994.
 41. Crofford, L.J., Pillemer, S.R., Kalogeras, K.T., Cash, J.M., Michelson, D., Kling, M.A., **Sternberg, E.M.**, Gold, P.W., Chrousos, G.P., Wilder, R.L. Hypothalamic pituitary adrenal axis perturbations in patients with fibromyalgia. *Arthritis Rheum.* 37(11):1583-1592, 1994.
 42. Adachi, J., Gomez, M., Smith, C.C., **Sternberg, E.M.** Accumulation of 3-(phenylamino) alanine, a constituent in L-tryptophan products implicated in eosinophilia-myalgia syndrome, in blood and organs of Lewis rats. *Archives Toxicol.* 69(4):266-270, 1995.
 43. DeRijk RH, Petrides JP, Deuster P, Gold PW, **Sternberg EM.** Changes in corticosteroid sensitivity of peripheral blood lymphocytes following strenuous exercise in humans. *J Clin Endocrinol Metab* 81:231-238, 1996.
 44. Misiewicz, B., Greibler, C., Gomez, M., Raybourne, R.B., Zelazowska, E., Gold, P.W., **Sternberg, E.M.** The estrogen antagonist tamoxifen inhibits carrageenan-induced inflammation in LEW/N rats. *Life Sciences* 58:281-86, 1996.
 45. Misiewicz, B., Zelazowska, E., Raybourne R.B., Cizza, G., **Sternberg, E.M.** Inflammatory responses to carrageenan injection in LEW/N and F344/N rats: LEW/N rats show sex and age-dependent changes in inflammatory reactions. *Neuro ImmunoModulation*, 1996;3:93-101.
 46. Burnet PW, Mefford IN, Smith CC, Gold PW, **Sternberg EM.** Hippocampal 5-HT1A receptor binding site densities, 5-HT1A receptor messenger ribonucleic acid abundance and serotonin levels parallel the activity of the hypothalamo-pituitary-adrenal axis in rats. *Behav Brain Res.* 1996;73(1-2):365-368.
 47. Misiewicz, B., Poltorak, M., Gomez, M., Glowa, J.R., Gold, P.W., **Sternberg, E.M.** Intracerebroventricularly transplanted embryonic neuronal tissue from inflammation-

- resistant F344/N rats decreases acoustic startle responses in inflammatory-susceptible LEW/N rats. *Cell Transplantation*, 1996, 5(2): 287-291.
48. Wong ML, Al-Shekhlee A, Bongiorno PB, Esposito A, Khatri P, **Sternberg ES**, Gold PW, Licinio J: Localization of urocortin messenger RNA in rat brain and pituitary. *Molecular Psychiatry* 1996; 1: 307-312.
 49. Singh A, Zelazowska EB, Petrides JS, Raybourne RB, **Sternberg EM**, Gold PW, Deuster PA. Lymphocyte subset responses to exercise and glucocorticoid suppression in healthy men. *Med Sci Sports Exerc.* 1996 Jul;28(7):822-828.
 50. Bernardini R, Iurato MP, Chiarenza A, Lempereur L, Calogero AE, **Sternberg EM**. Adenylate-cyclase-dependent pituitary adrenocorticotropin secretion is defective in the inflammatory-disease-susceptible Lewis rat. *Neuroendocrinology.* 1996 May;63(5):468-474.
 51. Adachi J, Ueno Y, Tatsuno Y, Gomez M, Smith CC, **Sternberg EM**. A comparative study of tissue distribution and excretion among three substances implicated in eosinophilia-myalgia syndrome. *Adv Exp Med Biol* . 1996;398:365-370.
 52. DeRijk RH, Michelson D, Karp B, Petrides JP, Galliven E, Deuster P, Paciotti G, Gold PW and **Sternberg EM**. Exercise and circadian rhythm induced variations in plasma cortisol differentially regulate IL-1 beta, IL-6 and TNF alpha production in humans: high sensitivity of TNF alpha and resistance of IL-6. *J Clin Endocrinol Metab* . 1997 Jul;82(7):2182-2191.
 53. Misiewicz, B, Poltorak, M, Raybourne RB, Gomez M, Listwak S, **Sternberg EM** Intracerebroventricular transplantation of embryonic neuronal tissue from inflammatory resistant into inflammatory susceptible rats suppresses specific components of inflammation. *Experimental Neurology*, 1997; 146:305-314.
 54. Schmidt LA, Fox NA, Rubin KH, **Sternberg EM**, Gold PW, Smith CC, Schulkin J. Behavioral and neuroendocrine responses in shy children. *Dev Psychobiol* 1997 Mar; 30(2):127-140.
 55. Zelazowska EB, Singh A, Raybourne RB, **Sternberg EM**, Gold PW, Deuster PA. Lymphocyte subpopulation expression in women: effect of exercise and circadian rhythm. *Med Sci Sports Exerc* 1997 Apr;29(4):467-473.
 56. Becker KJ, McCarron RM, Ruetzler C, Laban O, **Sternberg E**, Flanders KC, and Hallenbeck JM. Immunologic tolerance to myelin basic protein decreases stroke size after transient focal cerebral ischemia. *Proc Natl Acad Sci USA.* 1997; Sep 30;94(20):10873-8
 57. **Sternberg, EM**. The L-tryptophan eosinophilia myalgia syndrome epidemic: a case study of industry pressures on science. *New Engl J Med* 1997; letter, 337:1316-1317.

58. Paulus MP, Geyer MA and **Sternberg EM**. Differential movement patterns but not amount of activity in unconditioned motor behavior of Fischer, Lewis and Sprague Dawley rats. *Physiol Behav* 1998 Dec 1;65(3):601-6
59. Listwak S, Barrientos R, Koike G, Ghosh S, Gomez M, Misiewicz B and **Sternberg EM**. Identification of a novel inflammation-protective locus in the Fischer rat. *Mammalian Genome* 1999 10(4):362-365.
60. Deuster PA, Zelazowska EB, Singh A, Petrides JS, and **Sternberg EM**. Expression of lymphocyte subsets after exercise and dexamethasone in high and low stress responders. *Med Sci Sports Exerc* 1999; 31(12) 1799-1806.
61. Schmidt LA, Fox NA, **Sternberg EM**, Gold PW, Smith CC and Schulkin J Adrenocortical reactivity and social competence in seven year-olds. *Personality and Individual Differences*, 2000, 26: 977-985.
62. Jafarian-Tehrani M, Listwak S, Barrientos RM, Michaud A, Corvol P, **Sternberg EM**. Characterization of a missense mutation in the angiotensin I-converting enzyme cDNA in exudative-inflammation resistant F344/N rats. *Mol. Med.* 2000, 6(4):319-331.
63. Gomez-Serrano M, Tonelli L, Listwak S, **Sternberg EM** and Riley AL. Effects of Cross-Fostering on open field behavior, acoustic startle, lipopolysaccharide-induced corticosterone release and body weight in Lewis and Fischer Rats. *Behavior Genetics*, 31(5): 427-436, 2001
64. DeRijk RH, Marcel JM, Schaaf GT, Datson NA, Vreugdenhil E, Cidlowski J, De Kloet ER, Emery P, **Sternberg EM** and Detera-Wadleigh, SD. A human glucocorticoid receptor gene variant that increases the stability of the glucocorticoid receptor beta-isoform mRNA is associated with rheumatoid arthritis. *J. Rheumatol* Vol. 28(11) 23-83-2388, Nov 2001.
65. Frost P, Barrientos RM, Makino S, Wong ML, **Sternberg EM**. IL-1 Receptor Type I Gene Expression in the Amygdala of Inflammatory Susceptible Lewis and Inflammatory Resistant Fischer Rats. *J Neuroimmunology*. 2001 Dec 3;121(1-2):32-9.
66. Lutgendorf SK, Kreder K, Rothrock N, Hoffman A, Kirschbaum C, **Sternberg EM**, Zimmerman, B., & Ratliff, T. Diurnal cortisol levels and symptoms in interstitial cystitis patients. *J Urology*. 167:1338-1343, 2002.
67. Gomez-Serrano MA, **Sternberg EM** and Riley AL. Maternal behavior in F344/N and LEW/N rats - Effects on carrageenan-induced inflammation and body weight. *Physiology and Behavior*, 75 (4): 493-505, 2002.
68. Webster EL, Barrientos RM, Contoreggi C, Isaac MG, Ligier S, Habib K, Chrousos GP, McCarthy EF, Rice KC, Gold PW and **Sternberg EM**. Corticotropin-Releasing Hormone Antagonist Attenuates Adjuvant-Induced Arthritis: Evidence Supporting Major Role for CRH in Peripheral Inflammation. *J Rheumatology*, 2002; 29:6.

69. Gabry KE, Chrousos GP, Rice KC, Mostafa RM, **Sternberg EM**, Negrao AB Webster EL, McCann SM, Gold PW. Marked Suppression of Gastric Ulcerogenesis and Intestinal Responses to Stress by a Novel Class of Drugs. *Molecular Psychiatry*. 7:474-483, 2002.
70. Wei R, Phillips TM, **Sternberg EM**. Specific up-regulation of CRH and AVP secretion by acetylcholine or lipopolysaccharide in inflammatory susceptible Lewis rat fetal hypothalamic cells. *J. Neuroimmunology*. 131:31-40, 2002.
71. Tonelli L, Kramer P, Wray S, Listwak S and **Sternberg EM**. Lipopolysaccharide-induced estrogen receptor regulation in the paraventricular hypothalamic nucleus of Lewis and Fischer rats. *J. Neuroendocrinology*, 14:847-852, 2002.
72. Puchowicz M, Tonelli L, **Sternberg EM**. Differential expression of class I MHC mRNA in the hypothalamus of Lewis and Fischer rats. *J. Neuroimmunology*, 134; 35-43, 2002.
73. Wei R and **Sternberg EM**. Lewis hypothalamic cells constitutively and upon stimulation express higher levels of mRNA for pro-inflammatory cytokines and related molecules: comparison with inflammatory resistant Fischer rat hypothalamic cells. *J. Neuroendocrinology*, 135:10-28, 2003.
74. Webster, JI, Tonelli, LH, Moayeri M, Simons SS, Leppla SH, **Sternberg EM**. Anthrax lethal factor represses glucocorticoid and progesterone receptor activity. *Proc. Natl. Acad. Sci. U.S.A.*,100(10): 5706-5711, 2003.
75. Tonelli LH, Maeda S, Rapp KL, **Sternberg EM**. Differential induction of interleukin-I beta mRNA in the brain parenchyma of Lewis and Fischer rats after peripheral injection of lipopolysaccharides. *J. Neuroimmunology*, 140:126-136, 2003.
76. Wei R and **Sternberg EM**. IL-1 α -mediated neuropeptide and immediate early gene mRNA induction is defective in Lewis rat hypothalamic cell cultures. *J. Neuroimmunology*, 146(1-2):114-25, 2004.
77. DeRijk RH, Maloni H, McElroy B, McFarland H, Eskandari F and **Sternberg EM**. Corticosteroid-resistance in a subpopulation of multiple sclerosis patients as measured by ex vivo dexamethasone inhibition of LPS induced IL-6 production. *J. Neuroimmunology*, 151 (1-2):180-8, 2004.
78. Tonelli LH, Gunsolly CA, Belyavskaya EI, Atwood AR and **Sternberg EM**. Increased pro thyrotropin-releasing hormone transcription in hypophysiotropic neurons of Lewis rats. *J. Neuroimmunology*, Aug;153(1-2):143-9, 2004.
79. Moayeri M, Webster JI, Wiggins JF, Leppla SH and **Sternberg EM**. Endocrine perturbation increases susceptibility to anthrax lethal toxin. *Infection and Immunity*, 73 (7) 4238-4244, 2005.
80. Webster JI and **Sternberg EM**. Anthrax lethal toxin represses glucocorticoid receptor (GR) transactivation by inhibiting GR-DNA binding *in vivo*. *Molecular and Cellular Endocrinology* Sept. 28; 241(1-2):21-31, 2005.

81. Marques-Deak A, Cizza G, Eskandari F, Torvik S, Christie IC, **Sternberg EM** and Phillips T. Measurement of cytokines in sweat patches and plasma in healthy women: validation in a controlled study. *J. Immunol. Methods*, 315:99-109, 2006.
82. Butts CL, Shukair SA, Duncan KM, Horn CJ and **Sternberg EM**. Progesterone inhibits TH1-promoting responses by dendritic cells. *International Immunology*. 19(3):287-96, 2007.
83. Butts CL, Shukair SA, Duncan KM, Harris CW, Belyavskaya E and **Sternberg EM**. Effects of dexamethasone on rat dendritic cell function. *Hormone and Metabolic Research* 39:404-412, 2007.
84. Eskandari F, Martinez P, Torvik S, Phillips TM, Sternberg EM, Mistry S, Ronsaville D, Wesley R, Toomey C, Sebring NG, Reynolds JC, Blackman MR, Calis KA, Gold PW, and Cizza G. For the P.O.W.E.R. (Premenopausal, Osteoporosis Women, Alendronate, Depression) Study Group. Low Bone Mass in Premenopausal Women with Depression. *Arch Internal Med* 167(21):2329-2336, 2007.
85. Tait AS, Dalton M, Geny B, D'Agnillo F, Popoff M and **Sternberg EM**. The large clostridial toxins from *C. sordellii* and *C. difficile* repress glucocorticoid receptor activity. *Infection and Immunity* 75(8): 3935-3940, 2007.
86. Butts CL, Duncan KM, Shukair SA, Harris CW, Belyavskaya E, **Sternberg EM** (2007) Evaluation of steroid hormone receptor protein expression in intact cells using flow cytometry. *Nuclear Receptor Signaling* 5: e007-013.
87. Cizza G, Marques AH, Eskandari F, Christie IC, Torvik S, Silverman MN, Phillips TM and **Sternberg EM**. (2008) Elevated neuroimmune biomarkers in sweat patches and plasma of premenopausal women with major depressive disorder in remission: The POWER study. *Biol Psychiatry*. 64(10):907-911.
88. Butts CL, Shukair SA, Bowers E, Horn JC, Belyavskaya E, Tonelli L, **Sternberg EM** (2008) Inhibitory effects of progesterone differ in dendritic cells from male and female rodents. *Gender Medicine* 5 (4): 434-447.
89. Butts CL and **Sternberg EM** (2009) Flow cytometry as a measurement of steroid hormone receptor protein expression in leukocytes, in *Methods in Mol Biol: The Nuclear Receptor Superfamily* (J. Walker, Editor). 505: 35-50.
90. Kang Z, Webster Marketon JI, Johnson A, and **Sternberg EM** (2009) *B. anthracis* Lethal Toxin represses MMTV promoter activity through multiple transcription factors. *J. Mol. Biol.* 389, 595–605.
91. Thayer JF, Verkuil B, Brosschot JF, Christie I, West A, Sterling C, Abernethy D, Cizza G, Marques AH, Phillips T, Heerwagen J, Kampschroer K, Sollers, JJ & **Sternberg EM** (2010) The Effects of the Physical Work Environment on Circadian Variations in Heart

- Rate Variability and the Morning Rise in Cortisol. *Eur J Cardiovasc Prev Rehabil.* Aug;17(4):431-9).
92. Butts CL, Candando K, Belyavskaya E, Warfel J, D'Agnillo F, **Sternberg EM** (2010) Progesterone effects on regulating uterine dendritic cell function vary depending on stage of rodent estrus cycle *Mucosal Immunology* (Nature Publishing Group journal) Sep;3(5):496-505. Epub 2010 May 26.
 93. Cizza G, Nguyen VT, Eskandari F, Duan Z, Wright EC, Reynolds JC, Ahima RS, Blackman MR, **POWER Study Group** (2010) Low 24-hour adiponectin and high nocturnal leptin concentrations in a case-control study of community-dwelling premenopausal women with major depressive disorder: the Premenopausal, Osteopenia/Osteoporosis, Women, Alendronate, Depression (POWER) Study. *J Clin Psychiatry.* 71(8):1079-87.
 94. Marques AH, Silverman MN, **Sternberg EM** (2010) Evaluation of stress systems by applying noninvasive methodologies: measurements of neuroimmune biomarkers in the sweat, heart rate variability and salivary cortisol. *Neuroimmunomodulation* 17(3):205-8.
 95. Butts CL, Jones YL, Lim JK, Salter CE, Belyavskaya E, **Sternberg EM** (2011) Tissue expression of steroid hormone receptors is associated with differential immune responses. *Brain Beh Immun.* Jul;25(5):1000-7.
 96. Francois B, **Sternberg EM**, Fee E (2012) The Lourdes Cures Revisited. *J Hist Med Allied Sci.* July 2012.
 97. Silverman MN, Mukhopadhyay P, Belyavskaya E, Tonelli LH, Revenis BD, Doran JH, Ballard BE, Tam J, Pacher P and **Sternberg EM** (2012) Glucocorticoid receptor dimerization is required for proper recovery of LPS-induced inflammation, sickness behavior and metabolism in mice. *Mol Psychiatry.* 2013 Sep; 18(9):1006-17.
 98. Jia M, Belyavskaya E, Deuster P and **Sternberg EM** (2012) Development of a Sensitive Microarray Immunoassay for the Quantitative Analysis of Neuropeptide Y. *Anal Chem.* 2012 Aug;7;84(15):6508-14.
 99. Cizza G, Mistry S, Nguyen VT, Eskandari F, Martinez P, Torvik S, Reynolds JC, Gold PW, Sinai N, Csako G, **POWER Study Group** (2012) Do premenopausal women with major depression have low bone mineral density? A 36-month prospective study. Epub, PMC 2012;7(7):e40894.
 100. Skeath P, Norris S, Katheria V, White J, Baker K, Handel D, **Sternberg EM**, Pollack J, Groninger H, Phillips J, and Berger A. The Nature Of Life-Transforming Positive Subjective Changes Among Cancer Patients And Survivors. *Qual Health Res.* 2013 Sep; 23(9):1155-67.
 101. Bender B, Brown E, Bullock K, Cidlowski J, Fardet L, Joels M, Judd L, Kolet E, Leung D, McEwen B, Roozendaal B, **Sternberg EM**, Van Rossum E, Wolkowitz O (2013). Under-

Recognized Dangers of Glucocorticoid Medication: Adverse Psychological, Cognitive and Behavioral Effects. *Archives Psychiatry* (accepted).

Editorial Activities

Member Editorial Board: *Molecular Psychiatry*; *Neuroimmunomodulation*

Past Associate Editor: *Brain, Behavior and Immunity* (-2002); *Neuroimmunomodulation*

Past Editorial Board Member: *Brain, Behavior and Immunity* (-2006); *Journal of Neuroimmunology* (-2006); *Immunologic Research*

Invited Guest Editor (1997): *J. Clinical Investigation*, Perspectives Editorial Series “Cytokines and the Brain.”

Reviewer: *J. Exp. Med*; *Nature Reviews Immunology*; *Nature*; *Science Magazine*; *New Engl. J. Medicine*; *Molecular Psychiatry*; *J. Neuroscience*; *J. Clinical Investigation*; *J. Immunology*; *J. Rheumatology*; *Arthritis and Rheumatism*; *American J. Physiology*; *J. Endocrinology*; *J. Clinical Endocrinology & Metabolism*; *J. Neuroimmunology*

Magazine Columns

1. “The Balance Within”: Regular column (Jan 2011-present) in *Arthritis Today*, the bi-monthly magazine of the Arthritis Foundation (circulation 750,000, readership 4 million).
2. Regular Contributor to “Books et al” Section, *Science Magazine* (1998-present).

Work in Progress

1. Mukhopadhyay P*, Doran J*, Silverman MN, Batkai S, Belyavskaya E, Holovac E, **Sternberg EM**** and Pacher P**. (2012) PARP plays a key role in C. sordelli toxin-induced cardiovascular collapse. (manuscript in preparation). (*first authors; **senior authors).

Media

Television Shows

The Science of Healing, with Dr. Esther Sternberg: PBS Television Special. Producers: Emmy Award-winning Resolution Pictures. Dec. 2009 – to present. Prime time re-broadcast, spring-summer, 2012.

Scholarly Presentations

Selected Invited Lectures

1. L-5-HTP-carbidopa related scleroderma, 1979, American Rheumatology Association Meeting, Denver, CO.
2. High plasma kynurenine levels in idiopathic scleroderma: a marker for a clinical and biochemical subgroup of scleroderma, October 1981, Peoria, IL.
3. Pathogenesis of scleroderma, August 1984, University of Alberta, Edmonton, Alberta, Canada.

4. Serotonin, macrophages and the pathogenesis of scleroderma, May 1985, St. Louis University School of Medicine, St. Louis, MO.
5. The role of serotonin as a modulator of Interferon-gamma, September 1985, Departments of Psychiatry and Pharmacology, McGill University, Montreal, Canada.
6. Serotonin, macrophages and the pathogenesis of scleroderma, November 1985, Medical University of South Carolina, Charleston, SC.
7. Serotonin as a modulator of IFN gamma: a new biological role for serotonin? March 1986, Lilly Research Laboratories, Divisions of Inflammation Research and Cardiovascular Research. Indianapolis, IN.
8. Scleroderma: Is there hope for the future? May 1986, Defense Research Mapping Agency, St. Louis, MO.
9. Scleroderma; pathogenesis and new approaches to treatment, March 1987, Scleroderma Society of Greater Washington, D.C.
10. Scleroderma: Update on research and new approaches to treatment, March 1988, Scleroderma Society of Greater Washington, D.C.
11. The Immune System as an Endocrine System. F.A.E.S., post graduate course in Basic Endocrinology, Bethesda, Maryland, October, 1988.
12. De Witt Stetten NIH Intramural Seminar. The Role of the Central Nervous System in the Pathogenesis of Arthritis. NIH, Bethesda, MD, March 1989.
13. IIIrd International Symposium on Challenges of Hypersecretion: ACTH, Cushing's Syndrome and Other Hypercortisolemic States. The Role of the Hypothalamic-Pituitary-Adrenal Axis in Susceptibility to Arthritis. Heraklion, Crete, Greece. April 1989.
14. The Role of the Central Nervous System in the Pathogenesis of Inflammatory Arthritis. McGill University Dept. of Medicine, Montreal, Canada, Oct., 1989.
15. A Defect in the Central Component of the Immune System Hypothalamic-Pituitary-Adrenal Axis Loop is Associated with Susceptibility to Experimental Arthritis and other Inflammatory Diseases. N.Y. Academy of Sciences: Symposium on Neuropeptides and Immunopeptides: Messengers in a Neuroimmune Axis. Oct. 3, 1989.
16. The Role of the Central Nervous System in the Pathogenesis of Inflammatory Arthritis. World Psychiatric Association, Symposium on the Interface between Psychiatry and Medicine, Athens, Greece, Oct. 1989.
17. Rheumatoid Arthritis and Depression: Is there a neuroendocrine link? Plenary Session, World Psychiatric Association, Athens, Greece, Oct. 1989.
18. The Role of the Central Nervous System in the Pathogenesis of Inflammatory Arthritis. University of Chicago, Chicago IL. Nov. 1989.

19. The Role of the Hypothalamic-Pituitary-Adrenal Axis in Susceptibility to Experimental Inflammatory Arthritis. Hoffmann LaRoche, Inc., Nutley, NJ, Nov.1989.
20. A Working Hypothesis for the Pathogenesis of the Tryptophan Induced Eosinophilia Myalgia Syndrome - Center for Disease Control and FDA Exchange of Laboratory Information Meeting, Atlanta, GA, Feb. 22, 1990.
21. The Role of the Central Nervous System in the Pathogenesis of Inflammatory Arthritis. Rockefeller University, New York, NY , March 20, 1990.
22. The Role of the Central Nervous System in Susceptibility to Inflammatory and Viral Infectious Disease. Wistar Institute, Philadelphia, PA, March 7, 1990.
23. The Role of the Central Nervous System in Susceptibility to Inflammatory Disease. Invited guest speaker, Forum on Psychoneuroimmunology, Ancona, Italy, May 1990.
24. Chair, NIM and Autoimmunity Session, 1st International Congress on ISNIM, Florence, Italy, May 1990
25. Overview of current understanding of the Pathogenesis of the Tryptophan Induced Eosinophilia Myalgia Syndrome - NIH/CDC/FDA Conference on L-Tryptophan related EMS syndrome, Los Alamos, NM, June 1990.
26. Overview of current understanding of the Pathogenesis of the Tryptophan-Induced Eosinophilia Myalgia Syndrome; possible host factors. Toxicology Forum, Aspen CO, July 1990.
27. The Role of the Central Nervous System in Susceptibility to Inflammatory Disease. Invited Plenary Speaker, International Society for PsychoNeuro-Endocrinology, Buffalo, N.Y. August 1990.
28. Pathogenesis L-Tryptophan Induced Eosinophilia Myalgia Syndrome: a Medical Detective Story. McGill University/Royal Victoria Hospital Medical Grand Rounds, Montreal, Canada, September 1990.
29. The Role of the Central Nervous System in Susceptibility to Inflammatory Disease. Invited Plenary Speaker, Society for Neuroscience, Phoenix, AZ, Nov. 1990.
30. The Role of the Central Nervous System in Susceptibility to Inflammatory Disease. Invited Plenary Speaker, American College for NeuropsychopharmacologyPuerto Rico, Dec. 1990.
31. Pathogenesis of L-Tryptophan Eosinophilia Myalgia Syndrome. Toxicology Forum, Washington, D.C., February 1991.
32. Pathogenesis L-Tryptophan Induced Eosinophilia Myalgia Syndrome: a Medical Detective Story. Harbor-UCLA Medical Grand Rounds & UCLA Division of Rheumatology Seminar, Los Angeles CA, March 1991.

33. The Role of the Central Nervous System in Susceptibility to Inflammatory Disease. Wistar Institute, Philadelphia, PA April 1991.
34. The Stress Response and the Pathogenesis of Inflammatory Disease. Psychiatry Grand Rounds, New York University School of Medicine, New York, N.Y. April 1991.
35. The L-Tryptophan Induced Eosinophilia Myalgia Syndrome: a Microcosm of Issues in Science Today. Presented to Congressional Research Services Special Seminar, May 1991.
36. Moderator, NIH Combined Clinical Staff Conference, Eosinophilia Myalgia Syndrome, October 1991.
37. (1) The Role of the Central Nervous System in Susceptibility to Inflammatory Disease. (2) Pathogenesis of L-Tryptophan Eosinophilia Myalgia Syndrome. American College of Rheumatology Update Course, Snowmass, CO., Feb. 1992
38. Discussant, CIBA International Symposium on CRH, London, England, Mar. 1992.
39. The Role of the Central Nervous System in Susceptibility to Inflammatory Disease. NCI, Frederick, MD April 3, 1992.
40. Update on Etiology of L-TRP EMS and Toxicology of L-TRP Contaminants, Centers for Disease Control, Atlanta, GA. June 22-23, 1992.
41. (1) The Role of the Central Nervous System in Susceptibility to Inflammatory Disease. (2) Pathogenesis of L-Tryptophan Eosinophilia Myalgia Syndrome. Scripps Clinic, La Jolla, CA, July, 1992.
42. The Role of the Central Nervous System in Susceptibility to Inflammatory Disease. Salk Institute, La Jolla, CA, July, 1992.
43. Central Nervous System - Immune System Interactions. Lilly Pharmaceuticals, Indianapolis, IN July, 1992.
44. (1) The Role of the Central Nervous System in Susceptibility to Inflammatory Disease. (2) Pathogenesis of L-Tryptophan Eosinophilia Myalgia Syndrome. Toronto Hospital, University of Toronto, Toronto, Ont. Canada, Mar., 1993.
45. The Role of the Central Nervous System in Susceptibility to Inflammatory Disease. Columbia Hospital, Milwaukee, WI, 1993.
46. The Role of the Central Nervous System in Susceptibility to Inflammatory Disease. American Association of Immunology, Satellite Symposium on Neuroimmunomodulation, Denver CO, May, 1993.
47. Molecular Basis of the Mind-Body Connection: Stress and Susceptibility to Arthritis. UCLA, Oct. 1993.

48. Molecular Basis of the Mind-Body Connection: Stress and Susceptibility to Arthritis. Mind-Body Conference, NIMH, Bethesda, MD Jan. , 1994.
49. Corticosteroids, the Stress Response and Susceptibility to Inflammatory Disease. N.Y. Academy of Sciences Conference on Corticosteroid Receptors. Alexandria VA, Mar. 2-5, 1994.
50. The Role of the Hypothalamic-Pituitary-Adrenal Axis in Susceptibility to Inflammatory Disease. International Congress on Neuroimmunomodulation. April, 1994, Rio de Janeiro, Brazil.
51. The Role of the Hypothalamic-Pituitary-Adrenal Axis in Susceptibility to Inflammatory Disease. Centre Hospitalier Universitaire Vaudois, Lausanne, Switzerland. June, 1994.
52. The Role of the Hypothalamic-Pituitary-Adrenal Axis in Susceptibility to Inflammatory Disease. Universite de Bordeaux, INSERM, France. June, 1994.
53. The Role of the Hypothalamic-Pituitary-Adrenal Axis in Susceptibility to Inflammatory Disease. Pasteur Institute, Paris, France. June, 1994.
54. The Role of the Hypothalamic-Pituitary-Adrenal Axis in Susceptibility to Inflammatory Disease. 3rd International Congress of Neuroendocrinology. July, 1994.
55. Neuroimmune Interactions. University of Ottawa, Ottawa, Ontario, Canada. Aug.1994.
56. Interactions of the Stress response and the Immune System - An Overview. First World Congress on Stress. Bethesda, MD, Oct. 1994.
57. The Stress Response, Neuroimmune Interactions and Susceptibility to Inflammatory Disease. Fourth International Neuroimmunology Congress. Amsterdam. The Netherlands, Oct. 1994.
58. The Stress Response, Neuroimmune Interactions and Susceptibility to Inflammatory Disease. Eli Lilly Symposium, Rome, Italy, Oct. 1994
59. The Stress Response, Neuroimmune Interactions and Susceptibility to Inflammatory Disease. Columbia Presbyterian Hospital, New York, N.Y., Feb. 1995.
60. Experimental Biology '95. Symposium on Neuroimmunomodulation. Atlanta, GA April, 1995.
61. Boston City-Wide Allergy Conference, co-hosted by Harvard Medical School Massachusetts General Hospital Division of Allergy and Immunology, Boston, MA, May 1995.
62. AALAS Conference, Philadelphia, PA, June 6, 1995.
63. Center for Psychosomatic and Psychobiological Research, University of Trier, Trier, Germany. June, 1995.
64. Pathogenesis of EMS. ISTRY Conference, Padua, Italy, June 1995.

65. Brain-Gut Interactions Conference, Cambridge, England, July, 1995.
66. Neuroimmunomodulation Symposium, International Congress of Immunology, San Francisco, CA, July, 1995.
67. Symposium on Neuroimmunoendocrinology. Argentine Society for Clinical Investigation, Mar del Plata; and Consejo Nacional de Investigaciones Cientificas y Teonicas, Buenos Aires, Argentina, Nov. 1995.
68. NIMH directions in research conference: Where is the "Neuro" in PsychoNeuroimmunology? Santa Monica, April 1996.
69. University of Rochester, N.Y. Invited visiting professor. Molecular Basis of Mind-Body Interactions. April 1996.
70. McGill University, Invited visiting professor. Molecular Basis of Mind-Body Interactions. June 1996.
71. Laurentian Conference, La Sapiniere, Quebec, Canada. Neuroimmune interactions and Rheumatic Disease, May 1997.
72. Emotions and Disease: From Balance of Humors to Balance of Molecules. Smithsonian Institution, Washington, D.C. May, 1997.
73. The hypothalamic pituitary adrenal axis and susceptibility to inflammatory disease. Trier, Germany, June, 1997.
74. Neuroimmune interactions in health and disease. University of Athens, Athens, Greece. June 1997.
75. Neuroimmune interactions in health and disease. University of Heraklion, Crete, Greece. June 1997.
76. Neuroimmune interactions in health and disease. Woods Hole Marine Biology Course on Neuroimmunology, Woods Hole, MA, Aug. 1997.
77. Cytokines and the Brain: An overview of neuroimmune interactions. NIH-wide Cytokine Interest Group - Neuroimmune Interactions Interest Group, Bethesda, MD. Sept. 1997.
78. Cytokines and the Brain Invited Plenary Symposium and Overview lecture (Neural-immune Interactions in Health and Disease). Society for Neuroscience, Oct. 1997. New Orleans.
79. Introduction, moderator, co-organizer and co-chair: AAAS Plenary Symposium: "Manipulation of Science by Vested Interests: Money and Power versus the Public Health". AAAS National meeting, Feb. 14, 1998, Philadelphia, PA.
80. Interactions between the Immune and Neuroendocrine Systems; The Science and Practice of Mind-Body Interactions, Sedona, AZ, Mar. 1998.

81. WHO, Athens, Greece. Stress and Autoimmunity; WHO meeting on Stress in Neurological Disorders, Athens, Greece. May 1998.
82. Invited Chair and Organizer, and introductory overview of field: "Cytokines and the Brain" Symposium, American Association of Immunology Guest Society Symposium, co-sponsored by International Society for Neuroimmunology. San Francisco, CA, April, 1998.
83. Invited plenary lecture, Endocrine Society 98, New Orleans: HPA axis in inflammatory disease, June 1998.
84. Penn State University Summer Symposium in Molecular Biology, "Immune-Neuro-Endocrine Interactions; Cellular and Molecular Mechanisms." July 1998.
85. Karolinska Institute, Novum, Dept. Medical Nutrition, Stockholm, Sweden. Neural-Immune Interactions in Health and Disease. Oct. 1998.
86. Stockholm, Sweden. L-Tryptophan eosinophilia myalgia syndrome. Lessons for safety and regulation of food supplements. Oct. 1999.
87. Graz, Austria. Austrian Allergology and Immunology Society. Neural-Immune Interactions in Health and Disease. Oct. 1998.
88. University of Padua, Italy. Neural-Immune Interactions in Health and Disease. Oct. 1998.
89. Neural-Immune Interactions in Health and Disease and symposium chair, "Brain-Immune Connections: From Popular Myth to Hard Science", Science Innovation Track, AAAS National meeting, Jan. 24, 1999, Anaheim, CA.
90. Neural-Immune Interactions in Health and Disease. John Templeton Foundation Advisory Board meeting and Conference on Accelerating Creativity. Feb 15-17, 1999 Washington, D.C.
91. Neural-Immune Interactions in Health and Disease. Experimental Biology '99, Washington D.C., April, 1999.
92. Animal Models of Neural-Immune Interactions and Innate Inflammation. American Association of Immunology, Washington D.C., April 1999.
93. Woods Hole Marine Biology Laboratory Neuroimmunology Course. Neural-immune interactions in inflammatory disease. Woods Hole, MA. Aug. 1999.
94. Keynote lecture, International Society for Neuroimmunomodulation (ISNIM), Lugano, Switzerland, Oct. 1999.
95. Neural-Immune Interactions in Health and Disease. Stress et immunité, INSERM, Paris, France. Nov. 1999.
96. Does Stress Make You Sick and Believing Make You Well? Topical Lecture, AAAS National meeting, Feb. 19, 2000.

97. Neural-Immune Interactions in Injury and Disease: Pathways to Therapy. FASEB Summer Conference, Copper Mountain, CO. June 2000.
98. Does Stress Make You Sick and Believing Make You Well? Smithsonian Institution. May 2000.
99. Globalization, Spirituality and Health: the Biology of the Stress Response and the “Belief Response” State of the World Forum, satellite to U.N. Millennium Summit, New York, New York. Sept. 2000.
100. Neuroendocrine regulation of autoimmune/inflammatory disease. Conference on Nuclear Receptors and Eurosterone Conference. Karolinska Institute, Stockholm, Sweden. Sept. 2000.
101. Hormonal Stress response and Inflammatory Disease. NIH Women and Stress Conference. Bethesda MD. Sept. 2000.
102. Brain Immune Connections in Health and Disease. Autism and National Volunteers Conference. Orlando FL. Oct. 2000.
103. Brain Immune Connections in Health and Disease. Narcolepsy Network. St. Louis, MO. Oct. 2000.
104. Mind Body Connections. National Trustee Conference. Tucson, Arizona, Oct. 2000.
105. Breakout session Chair and Rapporteur. The Science of Placebo. NIH Placebo Conference. Bethesda MD, Nov. 2000.
106. Mind Body Connections. College of William and Mary, Williamsburg, VA, Nov. 2000.
107. Mind Body Connections. Smithsonian Associates Program, All day lecture series. Smithsonian Institution, Washington D.C. Dec. 2, 2000.
108. Stress Response and Rheumatic Diseases. Mexican Society of Rheumatology National Congress Symposium: The Stress Response and Rheumatic Diseases. Mazatlan, Sinaloa, Mexico. February 2001.
109. Neural-Immune Connections in Health and Disease. Instituto Nacional de Psiquiatria Ramon de la Fuente. Mexico City, Mexico. February 2001.
110. Sister to Sister Foundation and CVS Health Connection Women’s CVS Disease Symposium. Washington, DC. February 2001.
111. Disease of the Year Season. American Psychosomatic Society Annual Meeting. Monterey, CA. March 2001.
112. Science and Mind/Body Medicine. Harvard Medical School. Cambridge, MA. May 2001.

113. Plenary Address. International Society of Neuroimmunology. Edinburgh, Scotland. September 2001.
114. Grand Round Lecture. Stony Brook University Hospital. Stony Brook, NY. January 2002.
115. Neural Immune Interactions in Health and Disease. University of Connecticut Health Center. Storrs, CT, February 2002.
116. Sister to Sister Foundation and CVS Health Connection Women's Heart Day. Washington, DC. February 2002.
117. Grand Round Lecture. Long Island Jewish Medical Center. Glen Oak, NY. February 2002.
118. Roundtable Discussion and Lecture. Akron Roundtable. Akron, OH. March 2002.
119. National Hispanic Medical Association Annual Conference. Washington, DC. March 2002.
120. Science of Mind/Body Medicine. Harvard Medical School. Boston, MA. May 2002.
121. Endocrine Society Annual Conference. San Francisco, CA. June 2002.
122. Science of Mind-Body Interactions Lecture Series. Smithsonian Residents Associates' Program. Washington, DC. June-July 2002.
123. Mechanisms of Steroid Action and Resistance Inflammation and Disease. Eurosterone International Conference. Dublin, Ireland. September 2002.
124. Neural Immune Interactions in Health and Disease. Texas A&M University. Jan., 2003.
125. "How Stress Makes You Sick". Sister to Sister Foundation Women's Heart Day. Washington, DC. February 2003.
126. Hypothalamic-Pituitary-Adrenal Axis in Inflammatory Disease: Implications for Fatigue States and CFS. Banbury/CDC Conference, Cold Spring Harbor, NY. Feb. 2003.
127. The Brain's Stress Response and Autoimmune/Inflammatory Disease. Harvard/MIT Hippocratic Society. March, 2003.
128. Hypothalamic-Pituitary-Adrenal Axis in Inflammatory Disease. University of Virginia, Charlottesville, VA. April 2003.
129. Coping with Stress in Troubled Times. Meridian International Center. Washington, DC. April 2003.
130. Neural Immune Interactions in Health and Disease. Neurological Sciences Institute, Oregon Health Sciences Center, Portland, OR. May, 2003.
131. Neuroendocrine Host Response in Susceptibility and Resistance to Inflammatory and Infectious Disease. American Association of Immunology, Denver CO. May 2003.

132. The Brain's Stress Response in Health and Disease: Implications for Designing Spaces. American Institute of Architecture Annual Meeting, San Diego, CA. May 2003.
133. The Brain's Stress Response in Disease: A Template for Study of the Biological Basis of the Role of Love in Health. IRUL Conference on Biological, Cultural and Philosophical Aspects of Altruistic Love. Villanova University, Philadelphia, PA. May 2003.
134. Neuroendocrine Factors in Inflammatory and Autoimmune Disease. European Union Rheumatological Association, Lisbon, Portugal, June 2003.
135. Neural Immune Interactions in Health and Disease. XXVth Anniversary Instituto Nazionale di Psichiatria, Mexico City, Mexico. Sept. 2003.
136. Molecular and Physiological Aspects of Neuroendocrine Host Responses in Inflammatory and Infectious Disease Susceptibility. Nobel Symposium on Sex and Gender Factors in Health, Karolinska Institute, Stockholm, Sweden. Oct. 2003
137. Neuroendocrine Factors in Autoimmune, inflammatory and infectious disease. Singapore Institute for Molecular and Cellular Biology. Nov. 2003.
138. Neural Immune Interactions in Health and Disease. Singapore Public Lecture. Nov. 2003.
139. Does Stress Make You Sick? Singapore Raffles Girls' School. Nov. 2003.
140. Neuroendocrine Factors in Autoimmune, inflammatory and infectious disease. Tan Tock Seng Hospital, Singapore. Nov. 2003.
141. Public Education of Science - who should be doing the educating? in "Public Education: Is It Our Responsibility?" Satellite Symposium, Society for Neuroscience, New Orleans, Nov. 2003.
142. How Stress Makes You Sick. Washington National Cathedral Literacy Program. Washington D.C., Feb. 2004.
143. Honorary Host, Opening Sister-to-Sister Women's Heart Health Event. Madison Square Garden, New York, New York. Feb. 20, 2004.
144. Lecture: "How Stress Can make You Sick" Sister-to-Sister Women's Heart Health Event. Madison Square Garden, New York, New York. Feb. 20, 2004.
145. "Don't Let Stress Make You Sick". U.S. Dept. Health and Human Services, Health Resources and Service Administration (HRSA). Rockville, MD March 2004.
146. Singapore A-STAR Biomedical Research International Advisory Committee. Boston, MA. March 2004.
147. Brain Immune Connections in Health and Disease. Continuing Medical Education Course, June, 2004, Boulder Colorado.

148. Neural and Neuroendocrine Factors in Shock and Tissue Damage: Implications for Biodefense Treatment Strategies. July 2004, DARPA Workshop, Fairfax, VA.
149. Neuroscience and Architecture Academy for Neuroscience and Architecture Workshop – Designing Healthcare Facilities. Aug. 2004, Woods Hole, MA.
150. Neural Immune Connections in Health and Disease. Sept. 2004, Monterrey, Mexico.
151. Public Education of Science - who should be doing the educating? in “Public Education: Is It Our Responsibility?” Satellite Symposium, Society for Neuroscience, New Orleans, Oct. 2004.
152. Neural Immune Interactions in Health and Disease. Oct. 2004, Shizuoka Forum, Shizuoka, Japan.
153. Neural and Neuroendocrine Factors in Shock and Tissue Damage: Implications for Biodefense Treatment Strategies. Nov. 2004, National Defense University, Washington DC.
154. Chair, 2nd Annual NIH Workshop Neural and Neuroendocrine Factors in Shock and Tissue Damage: Implications for Biodefense Treatment Strategies. Jan. 2005, National Institutes of Health, Bethesda, MD.
155. Stress and Health Panel Chair and Moderator, Sister-to-Sister Women’s Heart Health Day, MCI Center, Washington DC, Feb, 2005.
156. Brain Immune Connections in Health and Disease. March 2005, Keynote Lecture, Royal Society of Medicine, London, UK.
157. Brain Immune Connections in Health and Disease. KUMC, Kansas City Kansas, April 2005.
158. Brain Immune Connections in Health and Disease: Implications for Women’s Health. University of Toronto, Toronto, Canada, May 2005.
159. Brain Immune Connections in Health and Disease. 12th International Symposium on Functional Medicine, Palm Springs, CA, May 2005.
160. The Brain’s Stress Response in Health and Disease. Metanexus Conference on Spirituality and Health, University of Pennsylvania, Philadelphia PA, June 2005.
161. The Biology of Love and Health. The Chautauqua Institution, Chautauqua, New York, Aug. 2005.
162. Neuroscience of Wayfinding. Academy of Architecture for Neuroscience Workshop, Woods Hole MA Aug. 2005.
163. Neural Immune Connections in Autoimmune Inflammatory Diseases and Arthritis. 25th Anniversary AGAR, Guatemala City, Guatemala, Sept. 2005.

164. Stress and the Heart. Sister-to-Sister Everyone has a Heart International Awareness Campaign, Lecture to International Washington Diplomatic Corps. MCI Center, Washington DC, Sept. 2005.
165. Moderator and Panelist, XIII Mind and Life Meeting. Investigating the Mind: the Science and Clinical Applications of Meditation, with His Holiness the Dalai Lama. Washington DC, Nov. 2005
166. Stress and the Heart. Sister-to-Sister Everyone has a Heart Foundation National Women's Heart Health Day, MCI Center, Washington DC, Feb. 2006.
167. Gender Differences in Brain-Immune Connections: First World Congress on Gender-Specific Medicine, Berlin, Germany, Feb. 2006.
168. Brain Immune Connections in Health and Disease. Fordham University Interdisciplinary Program, NY, NY April 2006.
169. Neural Immune Connections in Autoimmune/Inflammatory Diseases. U Mass Division of Rheumatology, Worcester MA April 2006.
170. Brain-Immune Connections & Gender Differences in Pain. Women & Pain through the Life Cycle UCSD/Diana Foundation Conference, San Diego, CA April 2006
171. Neural Immune Connections in Autoimmune Inflammatory and Infectious Diseases. George O'Brien Lecture, Harvard Children's Hospital, April 2006.
172. Bacterial Toxin Repression of Nuclear Hormone Receptors: Implications for host – bacterial interactions in shock. CDC Workshop on Emerging Clostridial Infections, Atlanta, GA, May 2006.
173. Neural Immune Connections: Relevance to Skin Disease. Keynote lecture, Stress and Skin Symposium, Weill Cornell Medical College, New York, NY, June 2006.
174. Brain-Immune Connections in Health and Disease: Implications for Spirituality and Health. Mayo Clinic Spirituality Grand Rounds, Rochester MN, July 2006.
175. Brain-Immune Connections in Health and Disease. Zurich Institute of Technology (ETH), Signs & Symbols Conference. Cortona, Italy, Sept. 2006.
176. Personal Health panel Co-Chair, Fortune Most Powerful Women Summit, Lake Las Vegas, Oct. 2006.
177. Society for Neuroscience President's Panel, Science & Society Lecture, Frank Gehry: Architecture & the Brain. Society for Neuroscience, Atlanta, GA Oct. 2006.
178. Finding Your Balance. Heinz Family Foundation, Women & Environment Conference, Boston MA Oct. 2006.

179. Integrative Medicine & NIH. Panelist, Bravewell Collaborative meeting. Philadelphia, PA, Nov. 2006.
180. Keynote Lecture, Harvard/Dana Alliance Conference on Learning and the Brain Conference. Boston, MA, Oct. 2006.
181. Invited Visiting Professor, Gustavus Adolphus College, St. Peter MN, Nov. 2006.
182. Neuroendocrine Immune Interactions in Inflammatory Diseases. Mexican College of Rheumatology, Chihuahua Mexico. Feb. 2007.
183. Science of the Mind Body Connection. Fountain Street Church. Grand Rapids, MI, March 2007.
184. Science of the Mind Body Connection: Implications for CAM Treatments & Gender Differences in Pain. Keynote Address, 2nd Annual Women & Pain through the Life Cycle UCSD/Diana Foundation Conference, San Diego, CA April 2007.
185. Science of the Mind Body Connection. Pacifica Graduate Institute, Imagination and Medicine Conference, Santa Barbara CA April 2007
186. Neuroendocrine Immune Interactions in Susceptibility to Inflammatory and Infectious Diseases. Hans Selye Centennial Symposium on Stress: Basic and Clinical Mechanisms, Montreal Canada. July 12-14, 2007.
187. Neuroendocrine Immune Interactions in Susceptibility to Inflammatory and Infectious Diseases. International Conference on Stress, Budapest, Hungary. August 23-26, 2007.
188. Visiting Professor, Neural Immune Interactions in Health and Disease. Minnesota Consortium for Complementary and Alternative Medicine (MNCAM) Sept. 17, 2007.
189. John J. Conley Lecturer: "The Science of the Mind Body Connection." American Association for Facial Plastic & Reconstructive Surgery. Washington, DC, Sept. 19, 2007.
190. Stress Panel: How Stress Can Make You Sick. Governor of Pennsylvania's Conference on Women, Philadelphia, PA, Nov. 8, 2007.
191. Keynote Address. Brain Immune Interactions: Science of the Mind Body Connection. Johns Hopkins/Healthways Health Outcomes Summit, Austin, TX, Nov. 9, 2007.
192. Welch Center Grand Rounds: Brain Immune Interactions: Science of the Mind Body Connection. Johns Hopkins University School of Medicine, Baltimore, MD, Jan. 8, 2008.
193. Keynote Address: University College Dublin International Symposium on Neuroimmunology. Dublin, Ireland, March 2008.
194. Keynote Address: Bowen Center for Study of the Family Spring Conference: "Schizophrenia is Not Destiny". Washington, DC, April 2008.

195. Keynote Address: Huffington Center on Aging, Baylor College of Medicine, Houston, TX, April 2008.
196. Keynote Address: International Society for Neuroimmunomodulation, Rio de Janeiro, Brazil, April 2008.
197. Co-Chair, UCSD Department of Psychiatry/Diana Padelford Binkley Foundation Glucocorticoids and Mood Conference, San Diego CA, June, 2008.
198. Keynote Address: Society of Atlantic Rheumatologists, Prince Edward Island, Canada, June 2008.
199. Keynote Address: International Society of PsychoNeuroEndocrinology, Dresden, Germany, July 2008.
200. Panelist, United Nations Nour Foundation September 11 Symposium “Beyond the Mind Body Connection”, New York, NY, September 11, 2008.
201. Panelist, College of William and Mary Department of Philosophy Colloquium, Williamsburg, VA, September 2008.
202. The Science of the Mind Body Connection: Psychiatry Grand Rounds, University of California, San Diego, January, 2009.
203. Panelist, Institute of Medicine Summit on Integrative Medicine, Washington, DC, Feb. 2009.
204. Healing Spaces: National Building Museum, Washington, DC, May 2009.
205. Healing Spaces: Lecture & book signing, Fourth Presbyterian Church, Chicago IL, May 2009.
206. Healing Spaces: Keynote, Thresholds Institute, Chicago, IL, May 2009.
207. Healing Spaces: Keynote, Institute for Functional Medicine, Hollywood FL, May 2009.
208. Healing Spaces: Lecture & book signing, Trinity Church, Boston, Nov. 2009.
209. Healing Spaces, Keynote lecture, Institute for Molecular Medicine, Trinity College, Dublin, Ireland, Nov. 2009.
210. Healing Spaces, Keynote lecture, Minnesota Pact4Families Brain Conference, Wilmar MN, Nov. 2009.
211. Exploring Healing Spaces: The Science of Place and Wellbeing. Sunday Forum, Washington National Cathedral, Washington, DC, Nov. 29, 2009
212. Healing Spaces: Keynote lecture, American Institute of Architecture Students Association, Minneapolis, MN Dec 2009

213. Healing Spaces: Scripps Green Hospital Grand Rounds: Neural Immune Interactions in Health and Disease, La Jolla CA, Feb 2010.
214. Healing Spaces: The Science of Place and Well-being. UCLA School of Communications. Los Angeles, CA, Feb 2010.
215. Science of the Mind Body Connection: Implications for Integrative Medicine, Arizona Integrative Mental Health Conference. Phoenix, AZ, March 2010.
216. Neural Immune Connections: Implications for Individual Variation. Bowen Spring Variations Conference. Washington DC, April 2010.
217. Healing Spaces: The Science of Place and Well-being. Chicago AIA: Chicago IL, April 2010.
218. Templeton Foundation Advisory Committee: Healing Spaces. New York, NY, May 2010.
219. Screening: The Science of Healing and Panel Discussion, Donna Karan Urban Zen New York, NY, May 2010.
220. Healing Spaces: The Science of Place and Well-being, EDRA Conference, Washington DC. June 2010.
221. Screening: The Science of Healing, Smith Farm Center for the Arts and Healing: Washington DC June 2010.
222. Screening: The Science of Healing, Avalon Theater, OASIS, Washington DC, July 2010.
223. Healing Spaces: The Science of Place and Well-being, July 2010. Assisi Conference, Procida, Italy.
224. Screening: The Science of Healing, Assisi Conference, Procida, Italy: July, 2010.
225. Healing Spaces: Sun Valley Idaho Writers' Conference, Sun Valley, Idaho, Aug. 2010
226. Healing Spaces: St. Luke's Wood River Hospital Foundation, Ketchum, Idaho, Aug. 2010.
227. Healing Spaces: Australia 5-City Book & Lecture tour, hosted by Arts and Health Foundation of Australia: Brisbane, Newcastle, Sydney and Melbourne, Australia. Oct. 2010.
228. Healing Spaces: Science, Engineering and Architecture Public Lecture, Griffith University, Gold Coast Campus, Brisbane Australia, Oct. 2010
229. Healing Spaces: Conservatorium of Music Public Lecture, University of Newcastle, Newcastle, Australia, Oct. 2010.
230. Healing Spaces: Arts & Health Symposium, Gallery of Art, University of Newcastle, Newcastle, Australia, Oct. 2010.

231. Healing Spaces: Art Gallery of South Australia, Adelaide, Australia, Oct. 2010.
232. Healing Spaces: School of Architecture Public Lecture, University of Melbourne, Melbourne, Australia, Oct. 2010.
233. Healing Spaces: Museum of Contemporary Art, Sydney Harbour, Sydney, Australia, Oct. 2010.
234. Healing Spaces: University of Sydney Brain & Mind Research Institute, Sydney, Australia, Oct. 2010.
235. The Balance Within: Univ of Sydney Public Lecture Series, Sydney Australia, Oct 2010.
236. Healing Spaces: Center for Health Design Annual Conference, Keynote Address, Las Vegas, Nevada, Nov. 2010.
237. Screening: The Science of Healing, Center for Health Design Annual Conference, Las Vegas, Nevada, Nov. 2010.
238. Healing Spaces: The Science of Place and Well-being: Grand Rounds Center for Integrative Medicine, Tucson AZ, Dec. 2010.
239. *Science of Healing* Screening and Panel Discussion with Dr. Andrew Weil, Center for Integrative Medicine Graduation Program, Fox Theater, Tucson AZ, Dec. 2010.
240. Keynote Address, Green Cities Conference, Melbourne, Australia. Feb. 2011.
241. Panelist, Aspen Environment Forum, Aspen Institute. Aspen, CO. June 2011.
241. *Science of Healing* Screening and Panel Discussion, National Museum of Women and the Arts. Washington DC, June 2011.
243. Healing Spaces: The Science of Place and Well-being. Guggenheim-BMW Lab, New York, NY, Oct. 2011.
244. Role of Glucocorticoid Receptor in sickness behavior and brain cytokine expression in a glucocorticoid resistant mouse model. International Conference on NeuroImmunoModulation, Dresden Germany. Oct. 2011
245. Neural Immune Interactions in Health and Disease: Dept. Psychology, Technical University of Dresden, Dresden, Germany. Oct. 2011
246. Bjørn Christenson Memorial Lecturer: Dept. Psychology, University of Bergen: Neural Immune Interactions in Health and Disease. Bergen, Norway, Oct. 2011.
247. Neural Immune Interactions in Health and Disease: Conference on Religion and Psychology, Biris, Norway, Nov. 2011.

248. Role of Glucocorticoid Receptor in sickness behavior and brain cytokine expression in a glucocorticoid resistant mouse model. Neuroscience Institute, Trinity College Dublin. Nov. 2011.
249. Keynote: Neural Immune Interactions in Health and Disease: Future of Medicine Tercentenary Symposium, Trinity College Dublin School of Medicine. Nov. 2011.
250. Discussant: Mind Brain Behavior and Health Network. Palm Beach, FL Nov. 2011.
251. Grand Rounds: Neural Immune Interactions in Health & Disease, National Children's Medical Center, Washington, DC, Feb. 2012.
252. NIH Clinical Center Grand Rounds, Pain & Palliative Care Group: Caregiver Burden, Stress, and Health Effects Among Family Caregivers. April, 2012.
253. Ruth Stricker Mind-Body Lecture, University of Minnesota, Center for Spirituality and Healing, April 2012.
254. Keynote Lecture: Healing Spaces: The Science of Place and Well-being. First Lourdes International Scientific Seminar, Lourdes, France. June, 2012.
255. Distinguished Speaker: Healing Spaces: The Science of Place, Spirituality and Wellbeing. Implications for the Hospital Environment and Health. XXVII International Conference of the Pontifical Council for Health Care Workers. The Vatican. Vatican City, Nov. 2012.
256. Keynote: Brain Immune Interactions: The Science of Health and Well-Being. 12th Annual Women's Mental Health Symposium, University of Arizona Department of Psychiatry, College of Medicine in collaboration with the Arizona Nurses Association, Arizona Psychological Association and the Center of Excellence in Women's Health. Tucson, AZ, April 2013.
257. Keynote Speaker: Environmental Health and Communicating Your Science. Carson Scholars. Biosphere 2, Sept. 2013
258. Distinguished Speaker: Healing Spaces: The Science of Place and Well-Being. Behind the Books. Oct. 2013
259. Speaker, UA College of Social and Behavioral Sciences, Downtown Lecture Series: Happiness, Oct. 2013

Grants and Contracts

(*Externally peer-reviewed)

- 1985 - 1988 NIH New Investigator Award (R23 AI22529-01) PI: Esther M. Sternberg MD
- 1985 -1986 United Scleroderma Foundation Grant PI: Esther M. Sternberg MD
- 1986 -1987 United Scleroderma Foundation Grant PI: Esther M. Sternberg MD
- 1987, 1988 Scleroderma Foundation of Greater Washington, DC Grants
PI: Esther M. Sternberg MD

Completed Research Support

2003-2006 General Services Administration (GSA) Inter-Agency Agreement (\$460,000)

PI: Esther M. Sternberg, MD, Chief, Section on Neuroendocrine Immunology and Behavior, NIMH, NIH

Project Title: GSA/NIMH Workplace Stress Study. Effects of the Physical Work Environment on Physiological Measures of Stress.

Funding Source: GSA

Total direct costs: \$460,000 Annual direct costs: \$153,333

Status: Funded; Project Completed

2003-2005 Trans-NIH NIAID Intramural Biodefense Program Award (\$430,000)*

PI: Esther M. Sternberg, MD, Section on Neuroendocrine Immunology and Behavior, NIMH, NIH

Project Title: *Bacillus anthracis* (anthrax) lethal toxin (LeTx) acts as a repressor of the glucocorticoid receptor (GR) and other nuclear hormone receptors: Role of LeTx-induced GR repression in toxicity of anthrax LeTx.

Funding Source: NIAID/NIH IRP

Total direct costs: \$430,000 Annual direct costs: \$143,333

Status: Funded; Project Completed

2006-2008 Trans-NIH/FDA Intramural Biodefense Program Award (\$480,382)*

PI: Esther M. Sternberg MD

Title: *Bacillus anthracis* (anthrax) lethal toxin (LeTx) repression of the glucocorticoid receptor (GR) and other nuclear hormone receptors: Molecular mechanism(s), role in toxicity of bacterial toxins and implications for biodefense treatment strategies.

Funding Source: NIAID/NIH IRP/FDA

Total direct costs: \$480,382 Annual direct costs: \$160,127

Status: Funded; Project Completed

2009-2010 Project Title: Non-invasive Sweat Patch Technology for Determination of Neural and Immune Biomarker Patterns in Health and Disease-Related Susceptibility, Progression and Treatment.

Co-PI: Esther M. Sternberg MD

Funding Source: NIH Office of Director One-time Funding Award (Director's Challenge Award)

Total direct costs: \$163,000 Annual direct costs: 163,000

Status: Funded; Project Completed

2009-2011 Center for Neuroscience & Regenerative Medicine (CNRM) Award (\$158,859)*

PI: Esther M. Sternberg MD

Title: Non-invasive Sweat Patch Technology for Determination of Neuroimmune Biomarkers

Funding Source: NIH IRP/Dept. of Defense (DoD)/USUHS

Total direct costs: \$158,859 Annual direct costs: \$79,430

Status: Funded

Project On-going; No-Cost Extension through Nov. 2012

2010-2011 Center for Neuroscience & Regenerative Medicine (CNRM) Award (\$17,000)*

Co-PI: Esther M. Sternberg MD

Title: In-Theatre Sweat Patch Biomarker Feasibility Study

Funding Source: NIH IRP/DoD/USUHS

Total direct costs: \$17,000 Annual direct costs: \$17,000

Status: Funded; Project temporarily suspended due to events in-theatre in Afghanistan

2011-2012 MH002585-19 NIMH Division of Intramural Research Program (DIRP)

Title: Role of Neuroendocrine Stress Response in Inflammatory and Behavioral Illness. To elucidate the role of neural factors in inflammatory disease and behavioral responses and conditions including sickness behavior and depression.

PI: Esther M. Sternberg MD

Total direct costs: \$530,000 Annual direct costs: \$530,000

Funding Source: NIMH/NIH Intramural Research Program (DIRP)

Status: Funded; Project Completed

2011-2012 Project Title: The Green Road at Bethesda Planning Grant

Funding Source: The Institute for Integrative Health in conjunction with TKF Foundation

Co-PI: Esther M. Sternberg MD

Total direct costs: \$50,000 Annual direct costs: 50,000

Status: Funded

1986-2012 NIMH Intramural Research Program support: Section on Neuroendocrine Immunology and Behavior

PI/Section Chief: Esther M. Sternberg MD

2011-2012 NCCAM Intramural Research Award

Project Title: Non-invasive Sweat Patch Technology for Determination of Neural and Immune Biomarker Patterns in Health and Disease-Related Susceptibility, Progression and Treatment.

PI: Esther M. Sternberg MD

Funding Source: Office of Director NCCAM One-time Funding Award

Total direct costs: \$250,000 Annual direct costs: \$250,000

Status: Funded; Project Ongoing

Ongoing Research Support

2013-2015

Project Title: The Green Road at Bethesda: To build and measure health outcomes of a healing woodland garden for wounded warriors at Bethesda Walter Reed National Military Medical Center.

Co-PI: Esther M. Sternberg MD

Funding Source: The Institute for Integrative Health in conjunction with TKF Foundation

Total direct costs: \$50,000

Status: Awarded

2013-2016

Project Title: Institute on Place and Wellbeing

PI: Esther M. Sternberg MD

Funding Source: The Lura and Lu Lovell Foundation

Total: \$300,000

Status: Awarded

2013-2014

Project Title: Sweat Biomarkers/Real-time Assessment

PI: Esther M. Sternberg MD

Funding Source: Nano-Bio Manufacturing Consortium (with Air Force Research Labs)

Total: \$100,000

Institute of the Environment

PI: Esther M. Sternberg MD

Funding Source: UA - Water, Environmental, and Energy Solutions

Total: \$60,000 (pending Templeton Foundation award)

Educational Activities (including Teaching; Lectures; PhD thesis advisory committees; Courses organized & directed; Post-doctoral Programs initiated & directed; Books & Columns written & edited; Television show & Web-based course modules created)

Teaching, Lectures, Courses & Training Programs Directed, PhD Thesis Advisory Committees

1. Course coordinator and instructor: Correlations between Internal Medicine and Basic Science, Medi 501M, F.A.E.S. Graduate School at NIH. 1991.
2. Preceptor, Howard Hughes Medical Institute/Montgomery County Public Schools/National Institutes of Health Student and Teacher Internship Program. 1991-92; 1992-1993; 1993-1994; 1994-95; 1995-96.
3. Lecturer, NIAMS Washington DC Rheumatology Fellow teaching program, 1991, 1994.
4. Lecturer, American College of Rheumatology Update Course, 1992.
5. Lecturer, Johns Hopkins University postgraduate class in science writing, 1995.
6. Keynote graduation address, Blair High School Regional Magnet Science Schools' Science Fair, 1995.
7. Lecturer, American Society for Microbiology, Foundation for Microbiology Lectures Program 1996-1998.
8. Lecturer, Woods Hole Marine Biology Course on Neuroimmunology, Woods Hole, MA, 1997, 1999, 2001, 2003, 2007. Topic area: Neural-Immune Interactions.
9. Lecturer, Smithsonian Institution Graduate Education Program: Lectures and courses on Science of Mind body Interactions/Neural Immune Interactions in Health and Disease: May 2000; Day Lecture Series Dec 2000; 4-week Lecture Series Jun/July 2002.
10. Founding Course Director and Instructor. Neural-Immune Interactions in Health and Disease, Medi 501M, Foundation for Advanced Education Sciences Graduate School at NIH, 1998 - 2011.

11. Keynote Lecturer & Co-organizer, University of California, San Diego Dept. of Psychiatry & UCSD Continuing Education Dept. Continuing Education Courses on Women & Pain through the Life Cycle (2006, 2007).
12. Director, Intramural Research Program on Women's Health/National Institutes of Health Foundation/Clinique Laboratories Inc. Summer Research Training Program.
13. Keynote Lecturer & Co-organizer, University of California, San Diego Dept. of Psychiatry & UCSD Continuing Education Dept. Continuing Education Course on Glucocorticoids and Mood (2008).
14. Co-Organizer and Co-Chair, University of California, San Diego Dept. of Psychiatry Workshop on Glucocorticoids and Mood (2012).

Ph.D. Thesis Advisor/Committees

1. Firdhaus Dhabhar B.S.: Ph.D. External Examiner, The Rockefeller University, New York, NY; Degree awarded June, 1996
2. Sam Listwak, B.S.: Ph.D. Thesis Advisor & Committee member, George Washington University, Washington, D.C.; Degree awarded June, 1999.
3. Maria Gomez, DVM.: Ph.D. Program & Thesis Advisor, American University, Washington, D.C., 1996-2000.
4. Ruth Barrientos, B.S.: Ph.D. Program & Thesis Advisor, George Washington University, Washington, D.C., 1996-2000.
5. Andres Gottfried, B.S.: Ph.D. External Examiner, The Rockefeller University, New York, NY; Degree awarded June, 2007.
6. Sheeba Nadarajah: Ph.D. Thesis Co-Sponsor and Committee Advisor, National Institutes of Health – University of Maryland Graduate Partnerships Program, 2010 - present.
7. Heather Coats: MS, APRN-BC, PhD Candidate University of Arizona, College of Nursing, and NINR NRSA F31 Pre-doctoral fellowship Co-Sponsor University of Arizona College of Nursing Dissertation Committee Member 2013

International Post-Doctoral Program Established and Directed

2012: Director, NIH–Fonds de Recherche du Quebec-Santé Research Career Transition Award Program at National Institutes of Health.

Web-based Teaching Module Created

2012 – present: American Institute of Architects Design & Health Initiative Web-based Continuing Education Module “The Science of Healing”: Adaptation of television show for Web-based teaching module & quiz question development for Credits towards Licensing in Architecture.

Government Activities (including Congressional Testimonies, Inter-Agency & International Agreements and Public-Private Partnerships Negotiated):***Congressional Testimonies***

1991: Sternberg, E.M. Testimony to the 101st Congress of the United States, House of Representatives, Human Resources and Intergovernmental Relations Subcommittee of the Committee on Government Operations. Hearing on issues related to the Federal Government's regulation of L-Tryptophan Eosinophilia Myalgia syndrome. In: *Congressional Hearing Record*, 1991.

1993: Sternberg, E. M. Testimony to the 103rd Congress of the United States, House of Representatives, Human Resources and Intergovernmental Relations Subcommittee of the Committee on Government Operations, Hearing on FDA's Regulation of Dietary Supplements, In: *Congressional Hearing Record*, 1993.

1993: Sternberg, E.M. Testimony to the 103rd Congress of the United States, House of Representatives, Subcommittee on Health and the Environment, Committee on Energy and Commerce, Hearing on Dietary Supplements, In: *Congressional Hearing Record*, 1993.

International & Inter-Agency Agreements Negotiated

2003-2006 NIH – General Services Administration Inter-Agency Agreement to study effects of office space on mood, stress and immune responses in office workers in old and newly retrofitted office space.

2010-2012 NIH – Fonds de Recherche du Quebec-Santé Research Career Transition Award Program: Commencing in 2012, the Quebec FRQ will support training of 6 fellows per year at NIH for up to three years each, and will provide fellows with a faculty position and \$25,000 start-up grants on return to Quebec upon completion of NIH portion of the Fellowship.

Public-Private Partnerships Negotiated

2007-2009 Intramural Research Program on Women's Health/National Institutes of Health Foundation/Clinique Laboratories Inc. to support a Summer Research Training Program to encourage undergraduate students in biomedical research in skin disease and skin cancer.

Technology Transfer (including Patents & Collaborative Research & Development Agreements – CRADAs):***Patents***

1. Evaluative means for detecting inflammatory reactivity, USSN 07/277,708; United States Patent #5,006,330, issued, April 9, 1991.
2. Evaluative means for detecting inflammatory reactivity, USSN 07/878,608; United States Patent #5,348,729, issued, Sept. 20, 1994.

3. Anthrax lethal factor represses the glucocorticoid receptor and other nuclear receptors: Possible role in toxicity of anthrax, related bacterial products and related vaccines. Provisional patent application filing # 60/416,222 and 60/419,454.

Research & Collaboration Agreement with Patent Potential

NDA with Air Force Research Labs and Nano-Bio Manufacturing Consortium - Development of method to measure biomarkers in sweat patches using nanoparticle technology.

NDA with Google – Workplace Well-Being

Collaborative Agreements (International; Public-Private Partnerships)

1998-2000	Karolinska Institute, Dept. Medical Nutrition, Stockholm, Sweden
1999-2000	College de France, Dept. Experimental Medicine, Paris, France
2003-2006	Glaxo Smith Kline, Stevenage, UK MCRADA
2006-2008	Pasteur Institute, France, Dr. Michel Popoff
2006-2012	German Cancer Research Center, University of Heidelberg, Germany, Prof. Dr. Gunther Schuetz
2007-2009	Intramural Research Program on Women's Health/NIH Foundation/Clinique Laboratories Summer Research Training Program
2008-2010	NIH Office of Public Private Partnerships: sweat patch biomarker collaborative agreement negotiations.
2011-2012	Collaborative agreements with Uniformed Services University and George Mason University: Sweat patch biomarker method development (see above under patent potential).

Departmental Briefings/Congressional Testimonies

- 1990 Briefing on "Pathogenesis L-Tryptophan Induced Eosinophilia Myalgia Syndrome" to Inter-Agency Committee on Human Nutrition Research (ICHNR, Sub-Committee of White House Office of Science and Technology Policy), co-chaired by Assistant Secretary of Health, Dr. J. Mason and Assistant Secretary of Agriculture, Dr. C. Hess, Washington, D.C., December, 1990.
- 1990 Briefing as Scientist, NIMH/ADAMHA Representative on "The Role of the Central Nervous System in Susceptibility to Inflammatory Disease and the Pathogenesis of L-tryptophan Induced Eosinophilia Myalgia Syndrome." Session on "The Decade of the Brain," chaired by Dr. L. Sullivan, Secretary of the Department of Health and Human Services, Washington, D.C., December, 1990.

- 1991 Expert witness, Testimony to the 101st Congress of the United States, House of Representatives, Human Resources and Inter-governmental Relations Subcommittee of the Committee on Government Operations. Hearing on Issues Related to the Federal Government's Regulation of L-Tryptophan, June 1991.
- 1991 Briefing as Expert to the National Center for Health Statistics (CDC), Health Care Financing Administration, and WHO Committee on ICDCM Codes for L-Tryptophan-EMS, October 1991.
- 1993 Expert witness, Testimony to the 103rd Congress of the United States, House of Representatives, Human Resources and Inter-governmental Relations Subcommittee of the Committee on Government Operations. Hearing on Dietary Supplements, July 20, 1993.
- 1997 Society for Neuroscience Representative to Congressional Exhibition celebrating 50th Anniversary of NIMH: Exhibit on "Emotions and Disease: A Delicate Balance". The United States Capitol, Capitol Hill, Washington, D.C. April 1997.
- 2010 Briefing, Bethesda National Naval Medical Center Behavioral Health Grand Rounds: Neural Immune Interactions in Post Traumatic Stress and Traumatic Brain Injury. Oct. 2010.
- 2011 Defense Advanced Research Projects Agency (DARPA) Briefing: Sweat Patch Biomarkers. April 2011.
- 2011 Briefing: Sweat Patch Biomarkers Update, Uniformed Services University/Dept. of Defense Center for Neuroregenerative Medicine, May 2011.
- 2013 GSA Green Building Advisory Committee Task Force on Standards Briefing on Inclusion of Human Health and Wellbeing Outcomes in Green Building Standards.

Conferences Chaired/Organized

- 1993 Co-Chair and organizer, Congressional Research Services/NIMH/Library of Congress Conference on Food Supplements: Consumer Choice versus Consumer Safety. Washington, D.C., June 23, 1993
- 1994 Organizing Committee, First World Congress on Stress, Bethesda, MD, Oct
- 1994-present Founding Chair, NIH-Wide Neural Immune Interactions Interest Group.
- 1995 Co-Chair, "Four Decades of Neuroendocrinology: a Tribute to S.M. McCann, M.D." Satellite Symposium of the Endocrine Society Congress, Washington D.C., June, 1995.
- 1995-1996 Co-Chair, NIH co-sponsored 3rd International Congress on Neuroimmunomodulation, Bethesda MD, Nov. 1996
- 1996-1997 Exhibition Co-Director, National Library of Medicine Exhibition on Emotions

and Disease. Nov. 13, 1996 - May 1, 1997.

- 1997 Invited Chair NIH Intramural Campus-Wide Cytokine Interest Group/
Neuroimmune Interest Group Symposium on Cytokines and the Brain.
- 1997 Invited Chair, Plenary Symposium on Cytokines and the Brain, Society for
Neuroscience Annual Meeting, Oct. 1997, New Orleans, LA.
- 1998 Co-Chair and Organizer, Plenary Symposium, 1998 American Association for the
Advancement of Science (AAAS) Annual Meeting: Symposium Title:
"Manipulation of Science by Vested Interests: Money and Power versus the Public
Health.
- 1998 Invited Chair and Organizer: "Cytokines and the Brain" Symposium, American
Association of Immunology Guest Society Symposium, co-sponsored Society
Symposium, co-sponsored by International Society for Neuroimmunology. San
Francisco, CA April, 1998.
- 1999 Invited Chair, speaker and organizer, 1999 AAAS Annual Meeting Symposium on
"Brain-Immune Connections: From Popular Myth to Hard Science." Sponsored by
AAAS Committee on Medical Sciences. Special Innovative Science track.
Topical Lecturer, 2000 AAAS Annual Meeting. "Does Stress Make You Sick and
Believing Make You Well?" Washington, D.C.
- 2001 Co-Chair NIH/MacArthur Foundation Conference on the Science of Mind Body
Interactions, Bethesda, MD.
- 2001 Chair, ISNIM/ISNI symposium Neural Immune Interactions in Health and Disease.
International Society for Neuroimmunology, Edinburgh, Scotland.
- 2001 Co-Chair ISNIM/AAI symposium on Estrogens and Regulation of Inflammation
and Autoimmunity, Experimental Biology meeting, Orlando, FL
- 2001 Co-Chair, NIH Research Festival Symposium, Neural Immune Factors in Brain
Tumor Chemotherapy CNS toxicity.
- 2001 Chair, ISNIM/SFN Guest Society symposium on Cytokines in Memory, Mood and
Cognition, San Diego, CA
- 2002 Co-Chair ISNIM/AAI symposium on Neural Immune Interactions: Effects of
Alcohol. Experimental Biology meeting, New Orleans, LA
- 2002 Chair, and President, 5th International Congress International Society for
Neuroimmunomodulation, Montpellier, France: Focus: Neural and neuroendocrine
factors in autoimmune, inflammatory allergic and infectious diseases.
- 2002 Co-Chair, NIH Research Festival Symposium, Neural Factors in Infectious Diseases.
- 2002 Co-Chair, ISNIM/SFN Symposium, Society for Neuroscience Guest Symposium,
Neural and Neuroendocrine Factors in Allergic Disease.

- 2003 Co-Chair, New York Academy of Sciences Conference on topics in Psychoneuroimmunology.
- 2004 Chair, organizer, 1st Annual NIH Workshop on Neuroendocrine and Neuroimmunological Factors in Shock and Tissue Damage: Implications for Biodefense Treatment Strategies.
- 2005 Chair, organizer, 2nd Annual NIH Workshop on Neural & Neuroendocrine Host Factors in Shock and Immune Tissue Damage: Implications for Biodefense Treatment Strategies.
- 2005 Co-Chair, New York Academy of Sciences Neuroimmunology Discussion Group on Neural & Neuroendocrine Factors in Shock and Immune Tissue Damage: Implications for Biodefense Treatment Strategies.
- 2007 Co-Chair, New York Academy of Sciences Neuroimmunology Discussion Group on Chemokines and the Brain.
- 2008 Co-Chair, UCSD Department of Psychiatry/Diana Padelford Binkley Foundation Conference on: "Glucocorticoids and Mood", San Diego, CA, June, 2008.
- 2011-12 Co-Organizer & Co-Chair, UCSD Department of Psychiatry/Diana Padelford Binkley Foundation Workshop on Glucocorticoids and Mood, San Diego, CA.

This is a true and accurate statement of my activities and accomplishments. I understand that misrepresentation in securing promotion and tenure may lead to dismissal or suspension under ABOR Policy 6-201 J.1.b.

Esther M. Sternberg, MD
Research Director, Arizona Center for Integrative Medicine