

BIOGRAPHICAL SKETCH
DO NOT EXCEED FOUR PAGES.

NAME		POSITION TITLE	
Steven Jacobson		Chief, Viral Immunology Section, NINDS	
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Temple University	BA	1976	Biology
Rennselear Polytechnic Institute	MS	1978	Biology
Rennselear Polytechnic Institute	PhD	1980	Virology

Personal Statement.

I am the Chief of the Viral Immunology Section at the National Institutes of Health. Research in my laboratory has focused on the virological, immunological and molecular biological characteristics of chronic, progressive neurological disease that are associated with human viruses and the relationship of these disorders to the disease of multiple sclerosis (MS). My laboratory has been involved in the investigation of the pathogenesis of chronic, progressive neurologic diseases associated with human viral infections particularly, HTLV-I associated myelopathy/tropical spastic paraparesis (HAM/TSP). We have a large clinical program in this disorder in which we translate basic, laboratory observations into clinical interventional strategies. Similar to other infectious and inflammatory diseases, the pathogenesis of a human retrovirus (HTLV-I) associated neurologic disorder has been suggested to involve interplay between host genes and antigen-specific immune responses. HTLV-I-associated myelopathy/tropical spastic paraparesis (HAM/TSP) is clinically similar to the chronic progressive form of multiple sclerosis (MS). It is likely that a more complete understanding of the pathogenesis of a neurologic disease with a known viral etiology such as HAM/TSP will aid in defining similar mechanisms of pathogenesis of MS, a disease of unknown etiology in which viruses have been suspected to play a role. Numerous studies have examined clinical, pathological, and immunological events in HAM/TSP. A primary focus of investigation in our group has been the characterization of the role of cellular immune responses to HTLV-I in patients with HAM/TSP. While progress has been made in defining immunopathogenic host T cell responses to HTLV-I in patients with HAM/TSP, there remains a significant gap in knowledge about the inflammatory pathways that are altered, and how HTLV-I contributes to this dysregulation. Our ability to translate knowledge gained from basic virologic/immunologic studies into clinically effective treatments with this rare disease represents a unique opportunity to better understand how virally-triggered immune dysregulation leads to neurologic disease. Understanding how a virus like HTLV-I can cause neurologic disease in subsets of infected individuals also will allow us to address questions of which and how viruses may trigger disease in MS.

Employment:

Oct 1979 - April 1980	Visiting Scientist National Institutes of Health/NINDS
Dec. 1981-Jan. 1982	Staff Fellow National Institutes of Health/NINDS
Jan. 1982 - Dec. 1985	National Multiple Sclerosis Society Fellow
Sept. 1984 - Jan. 1985	Guest Worker, Harvard University, Laboratory of Molecular, Biology and Biochemistry, Dr. Jack Strominger
1985 - 1990	Senior Staff Fellow National Institutes of Health/NINDS
1991 - 1993	Senior Investigator National Institutes of Health/NINDS
1993-present	Chief, Viral Immunology Section National Institutes of Health/NINDS
2009-2014	Acting Branch Chief Neuroimmunology Branch National Institutes of Health/NINDS

2014-present **Chief,**
Viral Immunology Section
National Institutes of Health/NINDS

Honors and Awards:

1972 New York State Regents Scholarship:
1972-1976 Temple University Academic Scholarship:
1988 Patent (No. 4968601) "Novel Techniques for Isolating Retroviruses"
1991 Nominated for the Charles C. Shepard Science Award for outstanding contributions to the scientific literature
1994 NIH Merit Award
1996 NIH Special Service Award
1997 Special Recognition Award for HTLV Research, Rio DeJanerio, Brazil
1998 First Myelin Visiting Professor - Cleveland Clinic, Cleveland, OH
1997-2003 Adjunct Professor; George Washington University, Neuroscience and Genetics Program
2000 NIH Director's Award
2003 NINDS Merit Award
2002-present Faculty, NIH Graduate Partnership Program
2003 Recipient NIH Undergraduate Scholarship Program (UGSP) Recognition Award
2003 Scientific Advisory Board – Boston Cure Project for Multiple Sclerosis
2005 Bench-to-bedside award: Evaluation of the anti-II-2/IL-15R beta monoclonal antibody Hu- MiK-Beta-1 in a therapeutic trial in patients with HAM/TSP and a test of hypotheses concerning the role of IL-15 in the maintenance of CD8 memory T-cells and in the pathogenesis of HAM/TSP
2006 Francis and Lewis Blumkin 1st Distinguished Neuroscientist Award, University of Nebraska School of Med, Omaha, NE.
2006 The Integrative Neural Immune Program Intramural Research Award # 3107: Co-Institute Sponsor; Michie Hisada, NCI: Serum Protein Profiling and Identification of Biomarker Proteins in Virus Associated Neurologic and Hematologic Disease
2006 The Integrative Neural Immune Program Intramural Research Award #3108: Co-Institute Sponsor; Frank Ruschetti, NCI: Distribution and Function of HTLV-I Binding Receptors.
2007 Dale McFarlin Award for Excellence in Human Retrovirology Intl. Society of Retrovirology: HTLV, Hakone, Japan
2013 Paradigm Builder Lectureship, International Society of Neurovirology

Seminars and Symposia Talks

2000 Organizer, Workshop on HTLV Molecular Biology and Pathogenesis, Airlie House, Warrenton, VA
2000 Organizer, NIH Sponsored Blue Ribbon Panel on Neurovirology, San Francisco, Ca.
2003 Organizer, The 11th International Conference on Human Retrovirology: HTLV and Related Viruses. San Francisco, CA
2004 Organizer, Workshop on Therapeutics in HTLV-I Associated Neurologic Disease, Montego Bay, Jamaica
2005 Advisory Board: HHV6 Foundation
2005 Organizer, 5th International Conference on HHV-6: Workshop on Infectious Agents in MS, Barcelona, Spain.
2005-present External Advisory Committee- Specialized Neuroscience Research Program, University of Puerto Rico, San Juan, PR
2007 External Advisory Board, Vaccine Branch, Center for Cancer Research, NCI
2007 Invited Speaker, International Workshop: Viruses, Genes and Cancer. Venice, Italy
2007 Organizer and Chair, 13th International Conference on Human Retrovirology, Hakone, Japan
2008 Organizer and Chair, 6th Intl Conference on HHV-6 & 7, Baltimore, MD.
2008 Invited Chair, Infectious Disease of the Nervous System: Pathogenesis and Worldwide Impact, Pasteur Institute,
2009 Organizer and Chair, 14th International Conference on Human Retrovirology; HTLV and related Viruses, Bahia,
2009 Organizer and Chair, 9th International Symposium on Neurovirology, Miami Beach, FL.
2010 Keynote Speaker, Third Congress of the Pan Asian Committee for Treatment and Research in Multiple Sclerosis (PACTRIMS), Bali, Indonesia.
2010 Organizer and Chair, 10th International Symposium in Neurovirology, Milan, Italy
2011 Organizer and Co-chair, The 14th International Conference on Human Retrovirology: HTLV and Related Retroviruses, Leuven, Belgium
Invited Speaker, International Association for Comparative Research on Leukemia and Related Diseases, Tokyo,
Organizer and Co-chair, The 14th International Conference on Human Retrovirology: HTLV and Related Retroviruses, Leuven, Belgium
Invited Speaker, International Association for Comparative Research on Leukemia and Related Diseases, Tokyo, Japan
Presentation, 5th Joint Triennial Congress of the European and Americas Committees for Treatment and Research in MS, Amsterdam, Netherlands
2012 Invited Speaker - European Committees for Treatment and Research in MS, Lyon, France
Invited Speaker- Viruses, Genes and Cancer, Venice, Italy.
Invited Speaker and Chair, International Society for Neuroimmunology, Boston, MA

- 2013 Organizer and Keynote Speaker, 8th International Conference on HHV6 and HHV7, Paris, France
 Organizer, Chair and invited Speaker, 16th International Conference on Human Retrovirology: HTLV and Related Viruses, Montreal, Canada.
 Plenary Speaker, Washington University 2013 Inaugural Symposium for the Center for Neuroimmunology and Neuroinfectious Diseases. St. Louis, Mo.
 Invited Speaker, University of York, York, United Kingdom
 Invited Speaker, London School of Hygiene and Tropical Medicine, University of London, United Kingdom
 Organizer and Plenary Speaker, 8th International Conference on HHV6 and HHV7. Paris, France
 Organizer and Chair, 12th International Symposium on Neurovirology, Washington, DC.
 Paradigm Builder Lectureship, 12th International Symposium on Neurovirology, Washington, DC.
- 2014 Chair and Invited Speaker, 4th Annual Conference of the American Society for Nanomedicine, Rockville, MD.
- 2015 Organizer and speaker, Forty Years of Neuroimmunology, Airlie House, Warrenton VA.
 Organizer and speaker, 9th International Conference on HHV6 and 7, Boston, MA.
 Organizer and speaker, 17th International Conference on Human Retrovirology: HTLV and Related Viruses, Martinique,
 Invited Speaker, International Joint Symposium of Innovative Treatments for HAM and Spastic Paraplegia, Tokyo, Japan.
 Speaker, International Neuroimmunology Conference, Mainz, Germany.
 Organizer and Invited speaker, 40 years of Neuroimmunology, Airlie, VA
- 2016 Plenary Speaker, Annual meeting of AINI, the Italian Neuroimmunology Society, Lecce, Italy
 Invited Speaker, Department of Neurology, University of Massachusetts Grand Rounds, U Mass, Amherst MA.
 Speaker, International Society of Neurovirology, Toronto, Canada
 Invited Speaker, Viruses, Genes, and Cancer, Venice Italy.
 Invited speaker, University College London, London, UK
 Plenary Speaker, XIII International Symposium of HTLV in Brazil, Bahia, Brazil
 Invited Speaker, Americas Committee for Treatment & Research in Multiple Sclerosis (ACTRIMS), Orlando, FL

Editorial Board:

1994	Journal of Neurovirology
1999	Viral Immunology
2000	Journal of Acquired Immune Deficiency Syndromes (JAIDS)
2001	Chinese Journal of Neuroimmunology and Neurology
2002	Journal of Translational Medicine
2003	Scientific Advisory Board – Boston Cure Project for Multiple Sclerosis
2006	Journal of Neuroimmune Pharmacology, Section editor
2007	Retrovirology
2007	Journal Of Translational Research
2009	Journal of Neuroimmunology, Section Editor
2009	Plos One, Academic editor (member Editorial Board)
2010	Multiple Sclerosis International
2012	Infectious Agents and Cancer

Editorial Consultant:

Journal of Immunology, Nature, Journal of Neuroimmunology, Journal of Virology, International Immunology, Annals of Neurology, Proc. Natl. Acad. Sci, AIDS, Blood, Journal of Clinical Investigation, Immunological Letters, Virology, New England Journal of Medicine, Journal of Infectious Disease, Journal of Acquired Immunodeficiency Syndrome, Journal of The National Cancer Institute, The Western Journal of Medicine, Journal of Psychiatric Research, Journal of Biomedical Science, Annals of Internal Medicine, Neurology, International Journal of Infectious Diseases, Journal of The Neurological Sciences, Nature Medicine, Journal of Cell Science, Oncogene, AIDS Research and Human Retroviruses, Journal of Human Virology, Annals of Medicine, Journal of Clinical Investigation, Clinical Infectious Diseases, Seizure, Biotechniques, International Journal of Cancer, Clinical and Diagnostic Laboratory Immunology, Microbiology and Molecular Biology Reviews, Journal of Neurology, Intl. Journal of Biochemistry and Cell Biology, American Journal of Pathology, Multiple Sclerosis Journal, Journal of Neuroimmune Pharmacology, Journal of Neurochemistry, Journal of Immunology, Epilepsia, Brain, Cytokine, Retrovirology, J Experimental Medicine, Journal of Virology, Nature Review, Proteomics, Plos, Neurology and Neuroinflammation, Journal of General Virology, Epilepsia, Journal of Neurovirology, Viral Immunology,

Participation on NIH committees

Scientist Member, CNS, IRB Blue Panel: NIH Immunology Interest Group: Faculty: NIH Graduate Partnership Program
 Faculty: Ox/Cam GPP Program; George Washington University; Karolinska Institute: Advisor, NIH Minority Student Program: Advisor,
 Colgate University-NIH student program: Advisor, MSTP University of Virginia School of Medicine; Search Committee, Earl Stadtman
 Investigator – Virology: Evaluation Trainee Candidate: Comparative Molecular Pathology Graduate Partnership Program
 NINDS Grand Rounds Committee: NINDS Clinical Intramural Retreat Committee: NIH Intramural Review Board (IRB) Blue panel: NIH
 Central Tenure Committee. Organizer, NINDS Clinical Research Program Retreat:

Scientific Advisory and Review Committees:

National Institute of Aging - Alzheimer Disease Research Center, Scientific Advisory Committee on Immunology,
State of Louisiana Board of Merit Review, Adhoc Reviewer for Cellular Immunology,
World Health Organization, Steering Committee on Acute Respiratory Viruses/Measles,
The Wellcome Trust, Traveling Fellowship Review Committee,
Multiple Sclerosis Society of Canada, Grants Review Committee,
National Multiple Sclerosis Society, Advisory Committee on Fellowships,
Committee for Scientific Research of Italian MS Society Medical Advisory Board,
VA Merit Review Committee for Infectious Diseases,
The Israel Science Foundation,
NIAID - Adult AIDS Clinical Trial Group, Special Review Committee,
Advisory Board, Biotechnology Consultant Group,
Multiple Sclerosis Society of Great Britain and Northern Ireland,
Grant Reviewer, NHLBI,
Grant Review Committee, Italian Minister for Universities and Research,
Grant Reviewer, Stichting Vrienden MS Research, Netherlands,
Center for Scientific Review Special Emphasis Panel
Research Roundtable on PANDAs
NIAID Intramural Biodefense Research Proposals
Protocol Review- Department of Transfusion Medicine NIH
Fondazione Italiana Sclerosi Multipla,
Canadian MS Society,
Tourette Syndrome Association Research Award Program,
Dutch Foundation for the Support of MS research,
Ad hoc reviewer: Department of Transfusion Medicine,
NIAID Biodefense Research Proposal
Canadian Institute of Health Research (Neuroscience B)
External Advisory Committee- Specialized Neuroscience Research Program, University of Puerto Rico, San Juan, PR
External Advisory Board, Vaccine Branch, Center for Cancer Research, NCI
External Advisory Committee, VA Centers of Excellence in MS.

Other notable accomplishments:

Principal Investigator: "Immuno-Virological Evaluation of Human T Cell Leukemia Virus Type-1 Associated Myelopathy (HAM/TSP)" Protocol # 98-N-0047

Principal Investigator: "Phase I/II Study of Tropical Spastic Paraparesis (HAM/TSP) Using the Humanized MiK-Beta-1 Monoclonal Antibody Directed Toward the IL-2R/IL-15R β Subunit (CD122) that Blocks IL-15 Action. Protocol # 04-N-0071

Principal Investigator: "Pilot study of Raltegravir, an Integrase inhibitor, in Human T-cell lymphotropic virus-1 (HTLV-1) associated myelopathy, tropical spastic paraparesis (HAM/TSP) Protocol # 13-N-0135

Advisory Board, International Retrovirology Association: HTLV and Related Viruses

Scientific Advisory Board; Accelerated Cure Project for MS

Scientific Advisory Board; HHV6 Foundation

Board of Directors, International Society for Neurovirology

Adjunct faculty, George Washington University, Institute of Biomedical Sciences

PhD Advisor, Emily Leibovitch, NIH/George Washington University, Graduate Program Partnership.

MD/PHD preceptor, Monique Anderson, MSTP MD/PhD program; University of Virginia.

Adjunct Professor, Xian Jiatong University Health Science Center, Xian, China.

Mentor, Naomi Lee, Postdoctoral fellow; NIH under-represented Native- American minority program.

Coordinator, International Consortium for Clinical trials in HAM/TSP.

Complete List of Published Work in MyBibliography:

<http://www.ncbi.nlm.nih.gov/sites/myncbi/16UXqegS8tnk5/bibliography/50823205/public/?sort=date&direction=ascending>