CURRICULUM VITAE, May 11, 2026

LAWRENCE STEINMAN, M.D.

Born: November 14, 1947, Los Angeles, California

Education

B.A.	Dartmouth College, 1964-1968 Major: Physics; Minor: Russian, Phi Beta Kappa, Magna Cum Laude
M.D.	Harvard University, 1968-1973
NIH Fellow	Chemical Neurobiology at Harvard Medical School with Torsten Wiesel, 1970-71

Post-graduate Training

Internship:	1973	Stanford University Hospital, Surgery
Resident:	1974	Stanford University Hospital, Pediatrics
Resident:	1977-1980	Stanford University Hospital, Pediatric and Adult Neurology
Fellow:	1975-1977	Weizmann Institute of Science, Chemical Immunology
	1975-1976	Aharon Katzir Katchalsky Fellow
	1976-1977	National Institutes of Health Visiting Fellow

Academic Posts

Assistant Professor:	1980-1985	Stanford University, Departments of Neurology and Pediatrics
Associate Professor:	1985-1991	Stanford University, Departments of Neurology, Pediatrics and Genetics
Professor	1994-1997	Weizmann Institute of Science
Professor	1991-present	Stanford University, Departments of Neurology and Neurological Sciences, Pediatrics and Genetics
Chairs	2002-2011	Chairman, Stanford University Program in Immunology
	2008-present	Incumbent of GA Zimmermann Chair as Professor of Neurological Sciences, Neurology, and Pediatrics

Professional Awards and Prizes

1979	S. Weir Mitchell Award, American Academy of Neurology
1981-1986	Teacher-Investigator Award, National Institutes of Health
1988-2002	Senator Jacob Javits Neuroscience Investigator Award from Congress of the United States and National Institutes of Health
1994	Dr. Friedrich Sasse Award for Outstanding Contributions in Immunology from the Free University of Berlin
2004	John M. Dystel Prize for Outstanding Contributions in Multiple Sclerosis Research, National MS Society & the American Academy of Neurology
2004	Outstanding Inventor Stanford University
2008	Honorary Doctorate Hasselt University
2009	Elected to Institute of Medicine, renamed National Academy of Medicine (2015)
2011	Charcot Prize for Lifetime Achievement in MS Research- International Federation of MS Societies
2015	Elected to the National Academy of Sciences
2015	Anthony Cerami Award in Translational Medicine
2015	Fellow of the American Academy of Neurology
2016	Fellow American Association for Advancement of Science
2022	Doctorate Honoris Causa University of Buenos Aires
2023	Pioneer in Medicine Award-Society for Brain Mapping and Therapeutics
2023	Science Magazine, American Association for Advancement of Science, Runner Up Breakthrough of the Year, 2022
2025	Weiner Prize in Neuroimmunology

Professional Organizations

American Academy of Neurology
Fellow American Academy of Neurology
American Neurological Association
American Association of Immunologists
Clinical Immunology Society

Board Certification

American Board of Psychiatry and Neurology (Neurology), 1984

Patents [partial list]

1.Immunotherapy of Autoimmune Disease, US Patent Number 4,695,459

2. Polypeptide Pertussis Toxin Vaccine, US Patent Number 5,000,952
3. Anti-T-Cell Receptor Determinants as Autoimmune Disease Treatment, Patent EP 0340109B1.
4. T cell receptor variable transcripts as disease related markers. US patent 5667967 9/16/97.
5. Treatment of central nervous system inflammatory disease with matrix metalloprotease inhibitors. US Patent 5532265
6. DNA Vaccination for induction of suppressive T cell response. US patent 5,939,400
7.Treatment of Demyelinating Disease with Ordered Peptide, US patent 6531130,
8. Methods for treatment of multiple sclerosis using peptide analogues at position 91 of human myelin basic protein U.S.6,329,499
9. Methods for treatment of multiple sclerosis using peptide analogues at position 91 of human myelin basic protein U.S.6,369,033
10. Methods for treatment of multiple sclerosis using peptide analogues at position 91 of human myelin basic protein U.S.6,489,299
11. US 6740638 Methods for treatment of multiple sclerosis using peptide analogues of human myelin basic protein
12. EP0792286 Methods for treatment of multiple sclerosis using peptide analogues at position 91 of human myelin basic protein
13. US 7030098 DNA Vaccination to Treat Autoimmune Disease
14. US 7070780 Treatment of Demyelinating Disease with Ordered Peptide
15. US 6794414 Methods and Compositions for Treating Diseases Mediated by Transglutaminase Activity
16. Osteopontin Related Methods and Compositions, US Patent 10/495,893 allowed 6/11/2007
17. DNA Vaccination for Treatment of Autoimmune Disease (Treating Type 1 Diabetes Mellitus) notice of allowance on appication 11/289,266
18. Polynucleotide Therapy (Treating IDDM), Notice of Allowance US Patent Application 10/302,098, Expiration March 16, 2024. See related patents:
19. US 7811813 Methods and Immune Modulatory Nucleic Acid
DNA Vaccination for Treatment of Autoimmune Disease (Treating Type 1 Diabetes Mellitus) see related patents including
20. US7,579,328;
21. US7,544,669;
22. AU2002362019;
23.CN02827318.4;
24. NZ533294;
25. EP 1,931,390;
26. AU 20329440;
27. EP 1,569,696;
28. NZ 540,276;
29.IL168715;
30. JP 4750419
31. Therapeutic and Diagnostic Uses of Antibody Specificity Profiles, 10/120,578, Expiration April 10, 2022
32. US Patent No. 7,875,589, "Alpha B-Crystallin as a Therapy for Rheumatoid Arthritis", issued January 25, 2011
33. US Patent No. 7,867,976 NOGO Epitopic Fragments for Modulating Immune Response, Issued Jan 11, 2011
34. US Patent No. 8148084 Diagnosis of Autoimmune Disease, Issued April 3, 2012
35. US 8,257,700, "Proteomic Analysis of Active Multiple Sclerosis Lesions"
36. US 8,252,775, "Method of Treating MS With Phosphocholine Containing Lipids."
37. US 8,771,689 Alpha B-Crystallin as a Therapy for Ischemia or Inflammation
38. U.S. Patent No. 8,835,391, "Alpha B-Crystallin as a Therapy for Multiple Sclerosis
39. U.S. Patent 10098935 Aquaporin tolerizing vaccines and methods of use thereof
40. U.S. Patent 10543260 Replacement gene tolerizing vectors and methods of use thereof

Administrative & Advisory Posts

Advisory Committee on Pertussis Immunization, Institute of Medicine, 1987-1990
Fellowship Advisory Committee, National Multiple Sclerosis Society 1988-1991
Grant Review Committee, National Multiple Sclerosis Society 2006-2011
Medical Advisory Committee, Muscular Dystrophy Association 1990-2002
Medical Advisory Committee, National Multiple Sclerosis Society 1990-1995
Member Immunological Sciences Study Section, NIH 1991-1995
Advisory Committee, Institute of Medicine, on "Multiple Sclerosis & Other Neurologic Disorders in Veterans of Persian Gulf & Post-9/11Wars 2014
Chairman,Research Advisory Committee, Gulf War Illness for the US Department of Veterans Affairs 2018-2022

Editorial Posts

International Immunology, Transmitting Editor 1988-2006
Journal of Immunology, Associate Editor 1991-1995
Neurobiology of Disease, Associate Editor 1998-2015
Proceedings of the National Academy of Sciences 2015-present

Business Positions

Centocor, Board of Directors 1991-1999, when sold to Johnson and Johnson
Neurocrine Biosciences, Founder Advisor 1992-2005, Board of Directors 2001-2005
Roche Biosciences, Scientific Advisory Board 1998-2002
Bayhill Therapeutics, **Founder** 2001-2011, Head of SAB, and member of Board of Directors
Atreca, Founder 2011 Board of Directors through 2019, Chair SAB 2019-2023
Transparency Life Sciences Founder 2011, Head Scientific Advisory Board
Tolerion, Founder 2013, Board of Directors, Executive Chair
Pasithea, Founder 2022, Chairman of the Board
180 Life Sciences Board of Directors 2020-present
BioAtla, Board of Directors 2020-present
Serpin Pharma, Board of Directors 2026-

BIBLIOGRAPHY

Journals

1. Budin J and Steinman L. Theory of transfinite numbers. In: *Research Papers in Mathematics* (R.E. Gaskill, ed.), National Science Foundation and Oregon State University, 1963, pp 9-31.

2. Lam DMK and Steinman L. Uptake of gamma-aminobutyric acid in the goldfish retina. *Proceedings of the National Academy of Sciences USA,* 68:2777, 1971.

3. Steinman L and Ames A. The sites of synthesis and the subsequent migration of newly synthesized protein in retina. *Tissue and Cell*, 6:137, 1971.

4. Steinman L. Maldistribution of physicians in Yugoslavia. *Journal of Medical Education,* 49:182, 1974.

5. Steinman L, Cohen I, Teitelbaum D, and Arnon R. Regulation of autosensitization to encephalitogenic myelin basic protein by macrophage-associated and soluble antigen. *Nature*, 265:173, 1977.

6. Teitelbaum D, Steinman L and Sela M. Unprimed spleen cell populations recognize macrophage-bound antigen with opposite net electrical charge. *Proceedings of the National Academy of Sciences USA,* 74:1693, 1977.

7. Lonai P and Steinman L. Physiological regulation of antigen binding to T cells: Role of a soluble macrophage factor and of interferon. *Proceedings of the National Academy of Sciences USA,* 74:5662, 1977.

8. Steinman L, Cohen I, Teitelbaum D, Glickman E and Arnon R. Regulation of autoimmunity by the mode of presentation of autoantigen to lymphocytes. In: *Regulatory Mechanisms in Lymphocyte Activation.* DO Lucas (ed), New York Academic Press, p. 728, 1977.

9. Lonai P, Steinman L, Zeicher M and Puri I. Physiological regulation of the H-2 complex. *Cellular Immunology*, 27:341, 1977.

10. Steinman L, Tzehoval E, Cohen I, Segal S, and Glickman E. Sequential interactions of macrophages, initiator T lymphocytes and recruited T lymphocytes in cell-mediated responses to soluble antigen. *European Journal of Immunology,* 8:29, 1978.

11. Lonai P, Ben-Neriah Y, Steinman L, and Givol D. Selective participation of immunoglobulin V region and major histocompatibility complex products in antigen binding T cells. *European Journal of Immunology,* 8:827, 1978.

12. Sogg R, Steinman L, Rathjen B, Tharp B and O'Brien J. Cherry red spot myoclonus syndrome. *Ophthalmology*, 86:1861, 1979.

13. Steinman L, Cohen I and Teitelbaum D. Natural occurrence of thymocytes with receptors for myelin basic protein. *Neurology (Minneapolis)*, 30:755, 1980.

14. Steinman L, Dorfman L, Tharp B, Forno L, Kelts K, O'Brien J and Sogg R. Peripheral neuropathy in the cherry red spot-myoclonus syndrome (Sialidosis Type 1). *Annals of Neurology,* 7:450-456, 1980.

15. Lonai P, Puri I, Zeicher M and Steinman L. Regulation of antigen binding to T cells: The role of products of adherent cells, and the H-2 restrictions of the antigen bound. In: *Advances in Experimental Medicine and Biology*. MR Escobar and H Friedman (eds), New York, Plenum Press, pp. 451-458, 1980

16. Chan CC, Sogg RL and Steinman L. Isolated oculomotor palsy after measles immunization. *American Journal of Ophthalmology,* 89:446, 1980.

17. Steinman L, Smith ME and Forno LS. Genetic control of susceptibility to experimental allergic neuritis and the immune response to P_2 protein. *Neurology (Minneapolis),* 31:950-954, 1981.

18. Lonai P, Steinman L, Friedman V, Drizlikh G and Puri J. Specificity of antigen binding by T cells: Competition between soluble and Ia associated antigen. *European Journal of Immunology,* 11:382-387, 1981.

19. Steinman L, Rosenbaum JT, Sriram S and McDevitt HO. *In vivo* effects of antibodies to immune response gene products: Prevention of experimental allergic encephalitis. *Proceedings of the National Academy of Sciences USA,* 78:7111-7114, 1981.

20. Steinman L. Neurologic complications of routine immunization. *Western Journal of Medicine,* 137:315, 1982

21. Steinman L, Sriram S, Adelman NE, Zamvil S, McDevitt HO and Urich H. Murine model for pertussis vaccine encephalopathy: Linkage to H-2. *Nature*, 299:738-740, 1982.

22. Sriram S, Solomon D, Rouse RV and Steinman L. Identification of T cell subsets and B lymphocytes in mouse brain EAE lesions. *Journal of Immunology,* 129:1649, 1982.

23. Steinman L, Clancy RR, Cann H and Urich H. Neuropathology of propionic acidemia. *Developmental Medicine and Child Neurology,* 25:87-94, 1983.

24. Waldor M, Sriram S, McDevitt HO and Steinman L. *In vivo* therapy with monoclonal anti I-A antibody suppresses immune response to acetylcholine receptor. *Proceedings of the National Academy of Sciences USA,* 80:2713-2717, 1983.

25. Steinman L, Solomon D, Zamvil S, Lim M and Sriram S. Prevention of EAE with anti I-A antibody: Decreased accumulation of radiolabeled lymphocytes in the central nervous system. *Journal of Neuroimmunology*, 5:91-97, 1983.

26. Sriram S and Steinman L. Anti I-A antibody suppresses active encephalomyelitis: Treatment model for IR gene linked diseases. *Journal of Experimental Medicine,* 158: 1362-1367, 1983.

27. Sriram S, Schwartz G and Steinman L. Myelin basic protein coupled spleen cells prevent EAE. *Cellular Immunology*, 75:378-382, 1983.

28. Dave P, Curless RG and Steinman L. Cerebellar hemorrhage complicating methylmalonic and proprionic acidemia. *Archives of Neurology*, 41:1293-1296, 1984.

29. Trotter JL and Steinman L. Homing of Lyt 2^+ and Lyt 2^- T cell subsets and B lymphocytes to the central nervous system of mice with acute experimental allergic encephalomyelitis. *Journal of Immunology*, 132:2919-2923, 1984.

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33. Sriram S and Steinman L. Postinfectious and postvaccinial encephalomyelitis.. In: *Neurology Clinics*. Saunders, Philadelphia, 2:341-353, 1984.

34. Steinman L, Sriram S and Waldor MK. Therapy of autoimmune diseases with antibodies to immune response gene products. *Clinical Immunology Newsletter*, Vol. 5, 3:43-45, 1984.

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36. Shalev R and Steinman L. Whooping cough immunization: The experiments and the lessons. Harefuah (Journal of the Israel Medical Association), 109:47-49, 1985.

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38. Steinman L. Introduction to Immunotherapy. *Annual Course, Neuroimmunology-Virology*. American Academy of Neurology, pp 15-30, 1985.

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40. Trotter J, Sriram S, Rassenti L, Jen Chou C-H, Fritz RB and Steinman L. Characterization of T cell lines and clones from SJL/J and (BALB/c x SJL/J)F1 mice specific for myelin basic protein. *Journal of Immunology,* 134:2322-2327, 1985.

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50. Steinman L, Weiss A, Adelman N, Lim M, Zuniga R, Oehlert J, Hewlett E, Falkow S and Zamvil S. Molecular analysis of pertussis vaccine encephalopathy. In: *Vaccines 86, Modern Approaches to Immunization*. R Lerner, R Channock and F Brown (eds). Cold Spring Harbor, pp. 187-190, 1986.

51. Steinman L. *Neuroimmunology Update, Scientific Basis of Neurology*. American Academy of Neurology, 1986 Course, pp. 43-50.

52. Black WJ, Steinman L, Lim M, Kent AR and Falkow S. Non-toxigenic mutants of *Bordetalla pertussis*. In: *Bacterial Vaccines and Local Immunity*. Ann Sclaro (ed). 1-2, pp. 175-182, 1986.

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