



Curriculum Vitae brevis
Silvia Tenenbaum, M.D.
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Personal Data

Full Name: Silvia N. Tenenbaum

Date of Birth: 11 August 1956

Position and title: MD, Head of Clinic, Department of Neurology.

National Paediatric Hospital Dr. J. P. Garrahan, Buenos Aires, Argentina

Education: School of Medicine, University of Buenos Aires, Argentina

Graduation date: December 29, 1979.

Magna Cum Laude, School of Medicine, University of Buenos Aires.

Qualifications

Certification: Paediatric Neurologist. Certified December 30, 1985.

Argentine Board of Paediatric Neurology and Argentine Ministry of Health.

Certification: Clinical Paediatric Neurophysiology. Certified December 12, 1992.

Argentine Board of EEG and Clinical Neurophysiology.

Certification: Neurologist. Re-certified November 6, 1997.

Argentine Medical Association.

Professor of Neurology. School of Medicine, University of Chile (Campus Norte).

November 28, 2014. Commission on Academic Evaluation,
 University of Chile.

Current Position

1. Head of Clinic. Department of Neurology. National Paediatric Hospital Dr. Juan P. Garrahan, Buenos Aires, Argentina (since 2016)
2. Staff Neurologist, senior consultant. Department of Neurology. National Paediatric Hospital "Dr. J. P. Garrahan", Buenos Aires, Argentina (since 1989).

3. Chair, Referral Paediatric Center for Acquired demyelinating disorders of the CNS, Department of Neurology, National Paediatric Hospital (since 1990).
4. Chair, Nominating Committee, International Paediatric MS Study Group (since 2010).
5. Member, Executive Board, International Child Neurology Association (ICNA) (2014-2018; 2018-2022).
6. Member, Paediatric chapter of the Latin American Committee for Treatment and Research in Multiple Sclerosis (LACTRIMS) (since 2005).
7. Honorary member of the Chilean Society of Paediatric Neurology and Psychiatry (since 2009)
8. Honorary member of the Mexican Society of Paediatric Neurology (since 2016).
9. Member Editorial Board: *Neurology: Neuroimmunology & Neuroinflammation* (since 2016).

Committee Responsibilities

1. Since 1998: Active member of the CNS Demyelinating Diseases Study Group, Argentine Society of Neurology (SNA).
2. Since 2002: Active member, International Paediatric MS Study Group (MSIF, NMSS).
3. Since 2004: Member of the External Steering Committee, Regional Paediatric MS Centers Task Force and Paediatric MS Centers. (NMSS, USA).
4. Since 2005: Chair, Paediatric MS Study Group. LACTRIMS.
5. 2007-2010: Chair, Steering Committee, International Paediatric MS Study Group. (NMSS, MSIF, MS Society of Canada and Italian MS Society).
6. Since 2009: Member of NMO-Roundtable Study Group.
7. Since 2011: Member of the International Panel for NMO Diagnostic Criteria Task Force- Chair of the Paediatric subcommittee.
8. October 2015: President Doctoral Degree Court, Barcelona University-School of Medicine (*Universitat de Barcelona, Facultat de Medicina, Comissió de Doctorat*). Doctoral candidate: Thais Armangué. Doctoral thesis: "Synaptic autoimmunity as a cause of encephalitis associated to teratoma, epilepsy and relapses post-herpetic encephalitis in children".

External Reviewer

Neurology; Neurology, Neuroimmunology & Neuroinflammation; Brain; Multiple Sclerosis Journal; Multiple Sclerosis and Related Disorders; Neuropaediatrics; Journal of Neurology; Journal of Pediatrics; Journal of Neurological Sciences; Journal of Neurology, Neurosurgery & Psychiatry; Journal of Pediatric Endocrinology & Metabolism; Journal of Pediatric Neurology; Journal of Clinical Apheresis; Lancet Neurology; Neuroimaging; Neuroradiology; Developmental Medicine and Child Neurology; European Journal of Neurology; European Journal of Pediatric Neurology; European Journal of Pediatrics; Revista Neurologica Argentina; Archivos Argentinos de Pediatria.

Publications (Brief selection of published papers)

1. Neuromyelitis optica spectrum disorders in children and adolescents. **Tenembaum S**, Chitnis T, Nakashima I, Collongues N, McKeon A, Levy M, Rostasy K. *Neurology* 2016 Aug 30;87(9 Suppl 2): S59-66.
2. Pediatric multiple sclerosis: Conventional first-line treatment and general management. Ghezzi A, Amato MP, Makhani N, Shreiner T, Gärtner J, **Tenembaum S**. *Neurology* 2016;87(9 Suppl 2): S97-S102.
3. Acute disseminated encephalomyelitis: Updates on an inflammatory CNS syndrome. Pohl D, Alper G, Van Haren K, Kornberg AJ, Lucchinetti CF, **Tenembaum S**, Belman AL. *Neurology* 2016 Aug 30;87(9 Suppl 2): S38-45.
4. Dystonia in a patient with autosomal-dominant progressive external ophthalmoplegia type 1 caused by mutation in the POLG gene. Rossi M, Medina Escobar A, Radrizzani M, **Tenembaum S**, Perandones C, Merello M. *Mov Disorders* 2016:1-3.
5. Subcutaneous interferon β -1a in pediatric patients with multiple sclerosis: Regional differences in clinical features, disease management, and treatment outcomes in an international retrospective study. Krupp LB, Pohl D, Ghezzi A, Boyko A, **Tenembaum S**, Chen L, Aycardi E, Banwell B, on behalf of the REPLAY Study Group. *J Neurol Sciences* 2016; 363:33-8.
6. Neuromyelitis optica and multiple sclerosis: Seeing differences through optical coherence tomography. JL Bennett JL, de Seze J, Lana-Peixoto M, Palace J, Waldman A, Schippling S, **Tenembaum S**, et al. *Mult Scler* 2015; May; 21(6): 678-88.

7. Update on biomarkers in neuromyelitis optica. Melamed E, Levy M, Waters PJ, Sato DK, Bennett JL, John GR, Hooper DC, Saiz A, Bar-Or A, Kim HJ, Pandit L, Leite MI, Asgari N, Kissani N, Hintzen R, Marignier R, Jarius S, Marcelletti J, Smith TJ, Yeaman MR, Han MH, Aktas O, Apiwattanakul M, Banwell B, Bichuetti D, Broadley S, Cabre P, Chitnis T, De Seze J, Fujihara K, Greenberg B, Hellwig K, Iorio R, Jarius S, Klawiter E, Kleiter I, Lana-Peixoto M, Nakashima, O'Connor K, Palace J, Paul F, Prayoonwiwat N, Ruprecht K, Stuve O, Tedder T, **Tenembaum S**, van Herle K, van Pelt D, Villoslada P, Waubant E, Weinshenker B, Wingerchuk D, Würfel J, Zamvil S. *Neurol Neuroimmunol & Neuroinflamm.* 2015; 23; 2(4): e134.
8. Comment on multiphasic disseminated encephalomyelitis followed by optic neuritis in a child with gluten sensitivity. Clinical commentary. **Tenembaum S**. *Mult Scler* 2015; 21 (9): 1212-14.
9. MRI characteristics of neuromyelitis optica spectrum disorder. An international update. Ho Jin Kim HJ, Friedemann P, Lana-Peixoto M, **Tenembaum S**, et al. *Neurology* 2015; 84 (11):1165–73.
10. Neuromyelitis optica and multiple sclerosis: Seeing differences through optical coherence tomography. Bennett J, de Seze J, Lana-Peixoto M, Palace J, Waldman A, Schippling S, **Tenembaum S**, et al; with the GJCF-ICC&BR. *Mult Scler* 2015; ; DOI: 10.1177/1352458514567216
11. International Consensus Diagnostic Criteria for Neuromyelitis Optica Spectrum Disorders. Wingerchuk DM, Banwell B, Bennett JL, Cabre P, Carroll W, Chitnis T, de Seze J, Fujihara K, Greenberg B, Jacob A, Jarius S, Lana-Peixoto M, Levy M, Simon J, **Tenembaum S**, Traboulsee A, Waters P, Wellik K, Weinshenker B. *Neurology* 2015; 85:177–89.
12. Use of advanced magnetic resonance imaging techniques in Neuromyelitis Optica Spectrum Disorder. Kremer S, Renard F, Achard S, Lana-Peixoto MA, Palace J, Asgari N, Klawiter EC, **Tenembaum SN**, et al.; Guthy-Jackson Charitable Foundation (GJCF) Neuromyelitis Optica (NMO) International Clinical Consortium and Biorepository. *Jama Neurol* 2015; 72:815-22.
13. Review on recent advances in multiple sclerosis and related disorders. **Tenembaum S**. *Journal Neurol Neurophysiol* 2014; 5(issue3): S12-016.
14. Subcutaneous Interferon Beta-1a in Pediatric Multiple Sclerosis. A Retrospective Study. **Tenembaum SN**, Banwell B, Pohl D, et al. *J Child Neurol* 2013 July, 28 (7): 849-56.
15. International Pediatric Multiple Sclerosis Study Group criteria for pediatric multiple sclerosis and immune-mediated central nervous system

- demyelinating disorders: revisions to the 2007 definitions. Krupp LB, Tardieu M, Amato MP, Banwell B, Chitnis T, Dale RC, Ghezzi A, Hintzen R, Kornberg A, Pohl D, Rostasy K, **Tenembaum S**, Wassmer E; International Pediatric Multiple Sclerosis Study Group. *Mult Scler* 2013 Sep; 19(10):1261-7.
16. International Pediatric MS Study Group Clinical Trials Summit: meeting report. Chitnis T, Tardieu M, Amato MP, Banwell B, Bar-Or A, Ghezzi A, Kornberg A, Krupp LB, Pohl D, Rostasy K, **Tenembaum S**, Waubant E, Wassmer E. *Neurology* 2013 Mar 19;80(12):1161-8.
 17. Serum auto antibodies to myelin peptides distinguish acute disseminated encephalomyelitis from relapsing-remitting multiple sclerosis. Van Haren K, Tomooka BH, Kidd BA, Banwell B, Bar-Or A, Chitnis T, **Tenembaum SN**, et al. *Multiple Sclerosis Journal* 2013; 19 (13): 1726-33.
 18. Consensus statement: evaluation of new and existing therapeutics for pediatric multiple sclerosis. Chitnis T, **Tenembaum S**, Banwell B, Krupp L, Pohl D, Rostasy K, et al. *Mult Scler* 2012; 18 (1):116-27.
 19. Ethical challenges in paediatric clinical trials in multiple sclerosis. **Tenembaum S**. *Ther Adv Neurol Disord* (May) 2012; 5 (3): 73-80.
 20. Tratamiento de la esclerosis múltiple en pediatría. **Tenembaum S**. *Revista Española de Esclerosis Múltiple* 2011; volumen III (18): 18-29.
 21. Anti-myelin antibodies modulate clinical expression of childhood multiple sclerosis. O'Connor KC, Lopez-Amaya C, Gagne D, Lovato L, Moore-Odom NH, Kennedy J, Krupp L, **Tenembaum S**, et al. *J Neuroimmunol* 2010; 223: 92-99.
 22. Therapy of multiple sclerosis in children and adolescents. **Tenembaum SN**. *Clin Neurol and Neurosurg* 2010; 112: 633-40.
 23. Emerging concepts in pediatric-onset multiple sclerosis and related disorders. **Tenembaum S**. *Curr Opin Pediatr* 2010; 22: 726-30.
 24. Age-dependent B cell autoimmunity to a myelin surface antigen in pediatric multiple sclerosis. McLaughlin KA, Chitnis T, Newcombe J, Franz B, Kennedy J, McArdel S, Kuhle J, Kappos L, Rostasy K, Pohl D, Gagne D, Ness JM, **Tenembaum S**, et al. *J Immunol* 2009; Sep 15; 183(6):4067-76.
 25. CNS Aquaporin-4 Autoimmunity in Childhood. McKeon, Lennon V, Lotze T, **Tenembaum S**, et al. *Neurology* 2008; 71 (2):93-100.
 26. Neuromyelitis Optica-IgG in Childhood Inflammatory Demyelinating Central

Nervous System Disorders. Banwell B, **Tenembaum S**, Lennon V, Ursell E, Kennedy J, Bar-Or A, Weinshenker B, Lucchinetti C, Pittock S. *Neurology* 2008; 70: 344-52.

27. Myelin basic protein and myelin oligodendrocyte glycoprotein T-cell repertoire in childhood and juvenile multiple sclerosis. Correale J, **Tenembaum S**. *Multiple Sclerosis* 2006; 12 (4): 412-20.
28. Interferon beta-1a treatment in childhood and juvenile-onset multiple sclerosis. **Tenembaum SN**, Segura MJ. *Neurology* 2006; 67: 511-3.

Chapters in Books (Brief selection of 8 chapters)

1. Autoimmune and Post-infectious Diseases. Legido A, **Tenembaum S**, Katsetos C, Menkes H. En: J Menkes, H Sarnat, B Maria (Eds): Child Neurology, Seventh Edition. Lippincott Williams & Wilkins, Philadelphia, PA, USA, 2006: pp 557-657.
2. Esclerosis múltiple en niños y adolescentes. **Tenembaum S**. En: C Arriagada, J Nogales-Gaete (Eds.): Esclerosis Múltiple: una mirada Ibero-Panamericana. Segunda edición. Demos Medical Publishing. New York, NY, USA. 2008: pp 337-56.
3. Acute disseminated encephalomyelitis. **Tenembaum S, Chitnis T**. En: R Dale, A Vincent (Eds): Inflammatory and autoimmune disorders of the nervous system in children. 1st Edition; McKeith Press, London 2010: pp 20-47.
4. New International definitions for CNS demyelination syndromes in children. Dale RC and **Tenembaum SN**. En: R Dale, A Vincent (Eds.): Inflammatory and autoimmune disorders of the nervous system in children. 1st Edition; McKeith Press, London 2010: pp 14-9.
5. Clinical and biological features of acute disseminated encephalomyelitis. **Hahn JS, Tenembaum S**. En: D Chabas, EL Waubant (Eds): Demyelinating disorders of the Central Nervous System in Childhood. Cambridge University Press. 1st Edition, Cambridge 2011: pp 183-201.
6. Acute disseminated encephalomyelitis. **Tenembaum S**. En: M Aminoff, F Boller, D Swaab (Series Editors), O Dulac, M Lassonde, HB Sarnat (Volume Editors): Handbook of Clinical Neurology. Vol 112 (3rd series). Pediatric

- Neurology Part II, 1st Edition. Elsevier B.V. Amsterdam, The Netherlands, 2013. Chapter 132: pp 1253-62.
7. Otras epilepsias inmunomediadas. **Tenembaum S.** En: J C Pérez Poveda, J C Bulacio, E Espinosa García (Eds.): Epilepsia en Niños: Clínica, Diagnóstico y Tratamiento. Primera Edición, Bogotá, octubre 2014. Editorial Pontificia Universidad Javeriana, Bogotá, Colombia: 1143-79.
 8. Pediatric multiple sclerosis. Distinguishing clinical and MR Imaging features. **Tenembaum S.** *Neuroimag Clin N Am* 2017; 27: 229–250.

Research Aims and Experience

I have successfully completed my administrative responsibilities as active member and chair of the Steering Committee, International Paediatric MS Study Group (IPMSSG), and I am currently contributing as chair of the Nominating Committee of this study group. I have participated in several Paediatric MS Workshops, publishing consensus definitions for Paediatric MS, ADEM, and NMO. As member of the IPMSSG, we contributed to research activities on paediatric MS, we developed treatment guidelines for paediatric patients, and promoted education at international levels. The Summit in 2012 (Washington) and more recently the Boston Paediatric MS Global Update (2014) are highlighted examples.

I have enjoyed being a member of the International Panel for NMO diagnostic criteria task force, as chair of the paediatric subcommittee. And since 2014 I have been elected member of the Executive Board, International Child Neurology Association (ICNA).

My main interest is the investigation of acquired CNS inflammatory and demyelinating disorders in the paediatric population. I have worked and continue working towards advocating for better services and care to children with MS, NMO, ADEM, and immune-mediated encephalopathies throughout the world, and

particularly in my region, South America, providing my clinical and research experience in the growing area of neuroimmunology.

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