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THE FIRST STEPS OF CLINICAL NEUROLOGY IN SOUTH AMERICA

The field of neurology in South America began to emerge toward the end of the 19th century, following the origin of the specialty in Europe. There was a consistent and long-standing admiration for European training, which led to the birth of the discipline in South America. The first steps took place almost simultaneously with European countries in Argentina, Brazil, Uruguay, Chile, and Peru. In the other countries, the development of neurology took place later in the 20th century.^{1,2}

In all countries, one can discern 3 fundamental stages: neurology as part of internal medicine; foundation stage under the typical European influence (first neurologists appear and they founded neurology units at hospitals and chairs at universities); and in more recent years, the stage of neurologic subspecialties.^{1,2}

In this review, we summarize the foundational stage of neurologic development in the South American countries where the first steps occurred (figure).

The history of neurology in South America took root in 1885, with the Hospital San Roque de Buenos Aires' first nervous diseases service. Its director was José María Ramos Mejía, a writer, sociologist, scientist, and outstanding public citizen. In 1887, only 5 years after Dr. Jean Martin Charcot was awarded the chief of neurology position at the famous Hôpital de la Salpêtrière in Paris, Dr. Ramos Mejía became the first professor of neurology in South America, at the University of Buenos Aires. Three assistants collaborated with Ramos Mejía: Dr. Christofredo Jakob, a German neuropathologist trained with Strumpell; Dr. José A. Estévez, well known for his clinical approach; and Dr. José Ingenieros, renowned for his sociologic contributions. Dr. Estévez became the second professor at the university and was succeeded in 1924 by Mariano Alurralde, who lectured with an anatomopathologic orientation. In 1941, Vicente Dimitri, designated professor of neurology, was the first with neuropathologic and neurologic training in European hospitals. With Dimitri, neurology par excellence began in Buenos Aires. He greatly influenced those who surrounded him, including José Pereyra Käfer, who became chairman of

the Hospital Ramos Mejía Neurology Service (formerly Hospital San Roque) and then took over as professor of neurology at the University of Buenos Aires.^{1,2}

In 1892, Augusto Orrego Luco of Chile, trained in France by Charcot, took over as professor of nervous diseases at the University of Chile. He was the most prominent figure in Chilean neurology during the second half of the 19th century, and was nicknamed "Charcot of America." In 1907, he retired and the Department of Neurology he once led was taken over by his disciple, Joaquín Luco Arriagada (trained by Babinski). In 1925, Luco Arriagada created the Department of Neurology at the Hospital del Salvador and in 1931, he began to serve as clinical chief at the Manicomio Nacional (Neuropsychiatric Hospital). When Arriagada retired, Lea Plaza was made Chair of Neurology at the University of Chile, and Jorge Oyarzún became Chief of Neurology at the Hospital del Salvador.¹⁻³ Alfonso Asenjo Gómez was trained in the United States by Walter Dandy and in Germany by Toennis; in 1939, Asenjo founded the Department of Neurosurgery at the Hospital del Salvador. In 1953, the Instituto de Neurocirugía e Investigaciones Cerebrales (Institute of Neurosurgery and Brain Research) of Chile opened, and it was directed by Asenjo for 34 years.^{1,2}

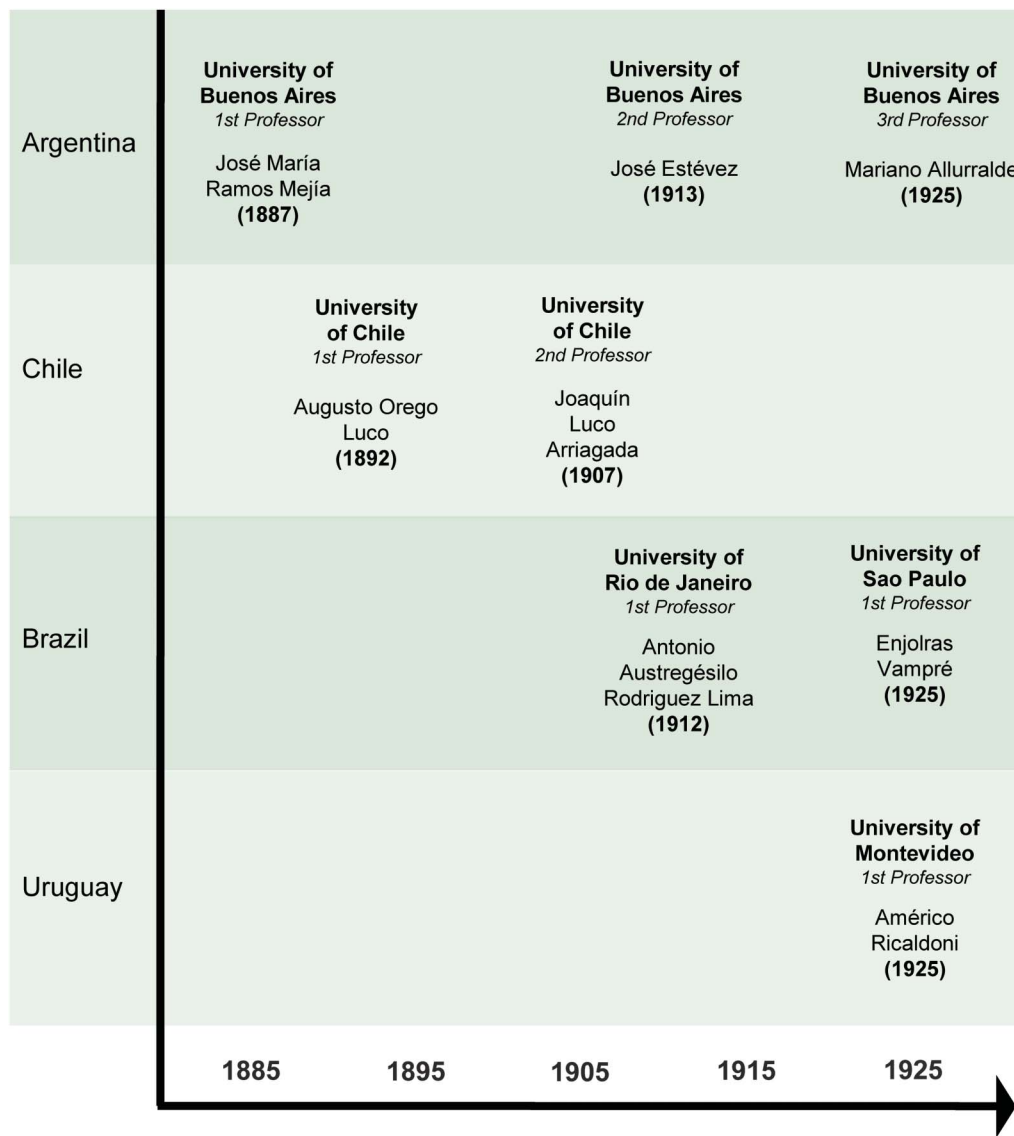
In Brazil, the discipline emerged in 1912 when the University of Rio de Janeiro School of Medicine created its first department of neurology, and appointed its first professor, Antônio Austregésilo Rodrigues Lima, a politician, writer, and skilled physician, now considered the father of Brazilian neurology.⁴

The São Paulo School of Neurology was founded in 1925, and Enjolras Vampré was appointed to take over the Department of Psychiatry and Neurology. Vampré, trained at the Salpêtrière, introduced the fundamentals of French neurology to São Paulo and is considered the founder of the São Paulo School of Neurology. In 1935, the department was divided into psychiatry and neurology. Successive generations of neurologists at the São Paulo school were disciples of Vampré, including Adherbal Tolosa, Paulino Watt Longo, Oswaldo Lange, and Carlos Gama. In 1944, Deolindo Augusto de Nunes Couto took over as chairman and consolidated Brazilian neurology.⁴

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Figure First professors of clinical neurology in South America



In 1946, Deolindo Couto founded the Instituto de Neurología da Universidade Federal do Rio de Janeiro, with extensive research activity in neurology, neurophysiology, and neurosurgery. This institute, later renamed Instituto de Neurología Deolindo Couto da Universidade Federal do Rio de Janeiro, became the international face of Brazilian neurology.⁴

In 1925, Uruguay took an important step with the creation of the Department of Neurological Diseases in the School of Medicine of Montevideo, with Américo Ricaldoni as its chairman. In 1927, the government created the Instituto de Neurología de Montevideo, and Ricaldoni was designated director and professor of neurologic disease. This was the first neurologic institute in Latin America—preceding the Montreal Neurological Institute by several years.⁵

At the beginning of 1937, after a decade of negligible activity in neurology in Uruguay, the specialty was

finally advanced when Alejandro Schroeder, trained in Germany, was appointed professor and director of the Institute of Neurology in Montevideo. Since Schroeder took over, the institute, renamed Instituto de Neurología Prof. Dr. Américo Ricaldoni, has been ranked among the top in South America.⁵

The institute's third director, Román Arana Iñiguez, took over in 1957 and the institute was moved to the second floor of the Hospital de Clínicas. Since then, different scientific interest sections have been created.⁵

In Venezuela, the discipline began upon Pedro B. Castro's return from Paris in 1936, where he had been trained by Professor Guillain at the Hôpital de la Salpêtrière. In 1938, Castro took over as a neurology consultant at Hospital Vargas, where he would remain until 1959. In 1940, the Universidad Central de Venezuela created its first Department

of Neurology and Psychiatry naming Castro its chairman.³

Peru's foundation stage began in 1935 with the return from Paris of Oscar Trelles Montes, trained by Jean Lhermitte. He is considered the "father of neurology of Peru." In 1940, Trelles was conferred professorship in neuropathology at the Universidad Nacional Mayor de San Marcos School of Medicine. By this time, he was also tending to the Refugio de Incurables of Lima (later renamed Hospital Santo Toribio de Mogrovejo). Almost every neurologist in Peru had studied at this hospital in some capacity under Trelles' 30-year directorship.¹⁻³

In 1954, Andrés Rosselli Quijano of Colombia traveled to the Massachusetts General Hospital to study neurology with great neurologists such as Raymond Adams, Maurice Victor, and Miller Fisher, and in 1956 he founded a neurology unit annexed to the Neurosurgery Department at Hospital Militar Central de Bogotá.³

Throughout its history, South America has made dozens of important research contributions, the most important in the diagnosis and treatment of regional endemic diseases such as Chagas (Argentina and Brazil), cysticercosis (Peru, Ecuador, Colombia), Huntington (Venezuela), and retrovirus-induced neurologic diseases, among others. In recent years, "globalization" has been positive as cooperative projects among the South American countries, as well as with first world countries, are now resulting in a more rapid development of South American neurology.

AUTHOR CONTRIBUTIONS

Dr. Allegri: concept and design of the article, writing of the article, critical revision of the manuscript for important intellectual content. Dr. Bartoloni: acquisition of data, writing of the article, critical revision of the manuscript for important intellectual content, contribution with the figure.

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