

# Anatomical studies at Universidad Central de Venezuela during 1763-1963

## Estudios anatómicos en la Universidad Central de Venezuela durante 1763-1963

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### SUMMARY

*In Venezuela, Medical studies began in 1763 at Real and Pontifical University of Caracas, conducted by Lorenzo Campins y Ballester. Afterward, José María Vargas, as the first rector of the successive University of Caracas, 1827 reformed the studies of Medicine, Surgery, and Anatomy. He gave lectures and performed anatomical dissections for 25 years. Vargas wrote *Curso de Lecciones y demostraciones Anatómicas* in 1838. Even under precarious conditions for medical education, a saga of anatomists managed to persist in anatomical studies in Venezuela. In the 20th century, a progressive development in anatomical studies began, led by Luis Razetti and extended by José Izquierdo. Subsequently, these improvements were promoted and developed in both medical schools of the Central University of Venezuela by Jesús Yerena, founder of the Anatomical Museum, and by Francisco Montbrun, founder of “José María Vargas” Medical School and its chair of human anatomy.*

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### RESUMEN

*En Venezuela los estudios de Medicina comenzaron en 1763 en la Real y Pontificia Universidad de Caracas, gestionado por Lorenzo Campins y Ballester. Posteriormente José María Vargas, como primer rector de la sucesiva Universidad de Caracas, a partir de 1827 reformó los estudios de Medicina, Cirugía y Anatomía. Impartió conferencias y realizó disecciones anatómicas durante 25 años. Vargas escribió *Curso de Lecciones y demostraciones Anatómicas* en 1838. Incluso en condiciones precarias para la enseñanza de la medicina, una saga de anatomistas logró persistir en los estudios anatómicos en Venezuela. En el siglo XX se inició un desarrollo progresivo de los estudios anatómicos, liderado por Luis Razetti y ampliado por José Izquierdo. Posteriormente, estas mejoras fueron promovidas y desarrolladas en la Facultad de Medicina de la Universidad Central de Venezuela por Jesús Yerena, fundador del Museo Anatómico y por Francisco Montbrun, fundador de la escuela de medicina “José María Vargas” y de su cátedra de anatomía humana.*

**Palabras clave:** *José María Vargas, anatomistas venezolanos, estudios anatómicos en Venezuela, Universidad Central de Venezuela.*

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## INTRODUCTION

Human anatomy is an ancient and primordial science within the vast and complex field of medicine. Its systematic knowledge started with the investigations of Herophilus and Erasistratus in the 6<sup>th</sup> century BC. Despite the great difficulties, inconveniences, limitations, and obstacles they entailed and imposed for many centuries, little by little it began to be recognized that good medicine and/or surgery were not possible without a good and very accurate knowledge of human anatomy. In Latin America, the formal teaching of human anatomy within medical studies began in the mid-17<sup>th</sup> century, when the first universities in America were established, which began teaching medicine in Santo Domingo (1538), Mexico (1578), Peru (1634), New Guatemala (1681), Quito, (1693), Caracas (1763) and others. In the United States, the first was the University of Pennsylvania (1779). The purpose of this article is to give a brief overview of anatomical studies at Universidad Central de Venezuela from its beginnings in 1763 until 1963.

### The Chair of Medicine

Medical studies in Venezuela began much later, in 1763. That is, there was a remarkable delay of 42 years after the foundation of the first university established in Venezuela; the Royal and Pontifical University of Caracas in the year 1721, by the disposition of King Philip V. In the beginning, the university offered degrees only in Theology, Philosophy, and Law. The official language was Latin.

Thanks to the initiative and management of Lorenzo Campins y Ballester (1726-1785), a Spanish physician, medical studies began in Venezuela. He promoted the creation of a Chair of Medicine, which became a reality in 1763 when he obtained permission from King Charles III for the teaching of medicine in the Province of Venezuela (1,2).

In the Prima Chair of Medicine, the knowledge imparted was based on basic notes on medicine and elementary notions of human anatomy, taken from Campins and Ballester, since there were no medical books available in Venezuela. Medical

studies consisted of two parts: theoretical and practical. The theoretical curriculum consisted of subjects such as physiology, botany, pathology, hygiene, therapeutics, and notions about urine and pulse. There were additional limitations: there were no anatomical models or drawings, no dissections, no libraries, and no textbooks. Nor was there a printer in Caracas for teaching purposes. Students had to copy the notes dictated by Campins and Ballester, which they had to memorize and then recite, to demonstrate learning the subjects (1).

Their first courses failed for several reasons, among them the lack of textbooks or manuals, the increase in quackery, and the scarce social interest in the medical profession. Despite the precarious conditions for medical education, Campins y Ballester managed to make medicine in Venezuela acquire a certain rank and respectability in the university cloisters. For 22 years, Campins y Ballester directed and dictated his classes at the Chair Prima de Medicina at Real y Pontificia Universidad de Caracas (2).

### Anatomical studies between 1785 and 1826

After Campins and Ballester's death in Caracas, he was succeeded in 1785 by Francisco Molina (1753-1788), his pupil and the first graduate physician in Venezuela. He continued the functions that Campins y Ballester had in the Prima Chair of Medicine. Molina continued teaching based on basic notes of medicine and very elementary notions of human anatomy made by his teacher Campins y Ballester, who, as already mentioned, tried to palliate with these notes the continuous lack of medical books in Venezuela. Molina did not change his previous methodology in medical studies. He died three years later and was succeeded by Felipe Tamariz in 1788, the second physician to graduate in Venezuela and also a student of Campins y Ballester (1,3).

Felipe Tamariz (1759-1814) obtained his doctorate in medicine in 1788. Tamariz's conceptual training in medicine brought him closer to the Greek medical school group of Methodists, for whom the balance of elements and humors plays a key role in the preservation or restoration of health (4). As Professor at the

Royal and Pontifical University of Caracas, he introduced pedagogical reforms: he adopted the works of the Spaniards Bartolomé Serena and Antonio Medina for anatomical-surgical teaching, and the work of Scotsman William Cullen, *First fines of the practice of Physic*, an extensive treatise on medicine. These books were used as guides for teaching practical medicine and physiology (5).

Felipe Tamariz established with his teaching work the first reform of teaching in the field of medical studies in Venezuela. He also participated in activities that supported the independence of Venezuela and when Caracas was attacked by Spanish troops, he died when he was shot by these troops during the patriot exodus to the east of the country in 1814.

After Tamariz's death, José Joaquín Hernández (1776-1850) succeeded him at the University in 1815. In practice, his teaching work was greatly restricted and compromised by the long and bloody Venezuelan War of Independence (1811-1821). This war interrupted education at all levels for several periods. These difficulties continued during later rebellions until 1826 when attempts to re-establish medical studies within the new republican university began. Hernández was one of the drafters of the republican statutes of the university-sanctioned by Liberator Simón Bolívar in 1827. José Hernández became a professor of Public Hygiene and Physiology at Universidad de Caracas until he died in 1850 (4).

### Reform in the study of human anatomy

With the approval of the new republican statutes of 1827, drawn up by the cloister and sanctioned by the national executive power - assumed by the Liberator Simón Bolívar - the University of Caracas and Faculty of Medicine were created. (2,4). José María Vargas was its first rector from 1827 to 1832 (Figure 1). José María Vargas (1786-1854) studied Medicine at Universidad Real y Pontificia de Caracas and was a disciple of Tamariz. After four years of study, he obtained his Doctor of Medicine degree in 1808, after which he embarked for Edinburgh (Scotland) to perfect his medical and surgical studies in Anatomy, Surgery, Botany, and Chemistry. He was appointed a Fellow of the Royal College of

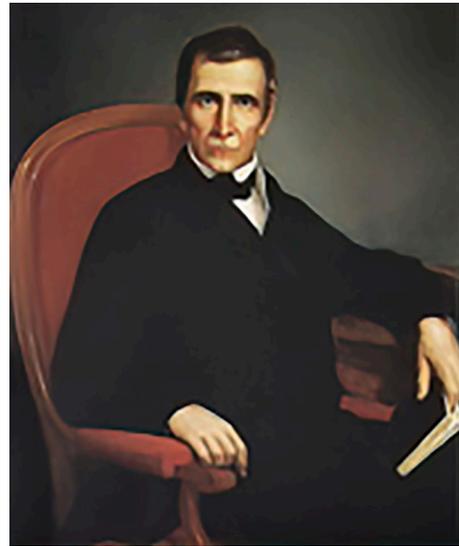


Figure 1. José María Vargas by Martín Tovar y Tovar (1875). [https://commons.wikimedia.org/wiki/File:Jos%C3%A9\\_Mar%C3%ADa\\_Vargas\\_by\\_Mart%C3%ADn\\_Tovar\\_y\\_Tovar.jpg](https://commons.wikimedia.org/wiki/File:Jos%C3%A9_Mar%C3%ADa_Vargas_by_Mart%C3%ADn_Tovar_y_Tovar.jpg)

Surgeons of the United Kingdom in 1816 and remained in the UK until 1818. He then settled in Puerto Rico between 1818 and 1824 (2,7,8).

José María Vargas returned to Venezuela in 1825, working as a physician and surgeon in the hospitals of Caracas. Starting in 1826, Vargas devoted himself to teaching as a professor of the subject "Anatomy," first in classes taught in his own home and then at the University. He joined the new University with an innovative and reformist spirit, as he added to his lessons of general and descriptive anatomy, various methods of study and research, including anatomical dissection, which he taught for 25 years. As well Vargas changed the official language for dictating classes from Latin to Spanish (4,7,9).

He also conducted various investigations and authored medical books and publications (10,11). His educational work was extensive. Vargas wrote *Curso de Lecciones y demostraciones Anatómicas en la Universidad de Caracas* (Figura 2), which was the first book on the subject written and printed in Venezuela in 1838 and was instituted as an official text for about 37 years in the chair of Anatomy (12).

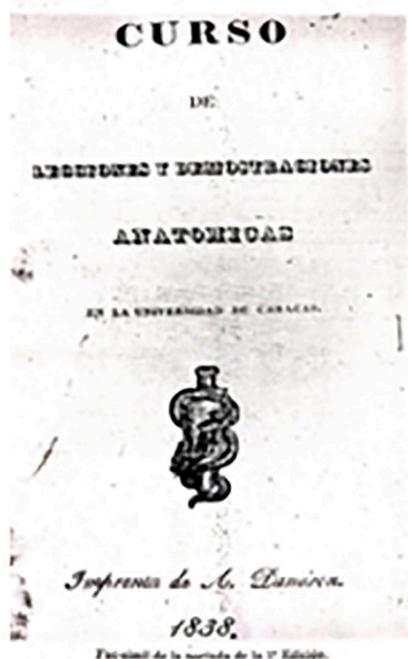


Figure 2. Curso de lecciones y demostraciones anatómicas en la Universidad de Caracas. Autor: José María Vargas. <https://museodellibrovenezolano.libroria.com/curso-de-lecciones-y-demostraciones-anatomicas-en-la-universidad-de-caracas>

In 1840 José M. Vargas inaugurated the chair of Surgery and published his *Manual de Cirugía* in 1841, he was its professor for many years, as well as of Chemistry (as part of the medical studies of the time). In 1842 he wrote *Curso de Lecciones de Química*. Vargas reformed and introduced changes in medical studies, in specialties of Surgery, Anatomy, and Chemistry, and promoted the development of other disciplines at the University. José María Vargas died in New York in 1854 (7,13).

#### **Anatomical studies during the second half of the 19<sup>th</sup> century**

After the death of José M. Vargas, a competition was called for the chair of Anatomy, and José Briceño Carmona (1807-1890) was declared the proprietary professor in 1855. He was a disciple

of Vargas (14,15). As Vargas' successor, José Briceño followed his teaching methods and used his book *Curso de Lecciones y demostraciones Anatómicas en la Universidad de Caracas*, as well as Fort's text and Jean Cruveilhier's treatise of descriptive anatomy (16).

When Briceño Carmona retired in 1883, Alejandro Frías Sucre (1835-1900) replaced him in the chair of Anatomy. One of Vargas' last disciples, Alejandro Frías taught from 1884 to 1893, adapting Marie P. Sappey's treatise on human anatomy (15,17).

Due to prolonged socioeconomic precariousness and continuous rebellions throughout Venezuela during the second half of the 19<sup>th</sup> century, teaching conditions decreased notably and progressively, with a consequent decrease in the quantity and frequency of anatomical dissections until they practically disappeared.

Alejandro Frías was succeeded in the chair of Anatomy in 1893 by Pablo Acosta Ortiz (1864-1914), who incorporated Leo Testut's treatise on human anatomy as a text for teaching anatomy at the University in 1893 (15,18).

#### **Anatomical studies between 1896 and 1952**

In 1896 Luis Razetti Martínez (1862-1932), succeeded Acosta Ortiz in the chair of Anatomy. Razetti did a remarkable job in the field of teaching as a professor of Anatomy for 16 years. He introduced the concepts of Darwin's theory of evolution into the Anatomy curriculum. Among his contributions is the establishment in 1911 of the Anatomical Institute, where anatomical dissections were progressively restarted (2,19,20). Luis Razetti, along with a group of physicians, promoted a slow but fruitful recovery and gradual progress of medicine in Venezuela during the first thirty years of the 20th century.

Dr. José Izquierdo Esteva (1887-1975) 1915 was one of the founders of the chair of Anatomy at Instituto Anatómico, who later replaced Luis Razetti in this chair of Anatomy in 1917. Izquierdo performed outstandingly in both the teaching and practice of anatomical dissection. He was a diligent teacher until his retirement in 1952. Izquierdo taught his classes

and made drawings relevant to the teaching of this discipline, based on Testut-Latrajet Treatise on Human Anatomy (21,22).

### Expansion at the Faculty of Medicine (1953-1963)

After José Izquierdo retire in 1952, his pupils Jesús Yerena and Francisco Montbrun continued the modernization of anatomical studies at a time when a series of administrative and structural reforms took place at the Ciudad Universitaria of Universidad Central de Venezuela (Figura 3).



Figure 3. Anatomy lesson by Dr. José Izquierdo. On the right side is Dr. Jesús Yerena, at the center Dr. José Izquierdo and with a brown coat Dr. Francisco Montbrun. Painted by Fantuzzi, 1950 Anatomical Institute, U.C.V. (Photo by Rafael Romero Reverón).

Jesús Yerena (1917-1970), remained in charge of the chair of Anatomy at the newly created Ciudad Universitaria. He not only devoted himself to advanced teaching but also carried out laborious dissection work and meticulous anatomical studies to found the Anatomical Museum of Anatomical Institute of Ciudad Universitaria in 1963. Yerena published with Luis Plaza Izquierdo an Atlas of Dissection by Regions. He also trained several prominent anatomists, who continued to optimize the teaching of human anatomy at the “Luis Razetti” School of Medicine in Universidad Central de Venezuela (23,24).

By the late 1950s, new facilities for medical studies were needed in Venezuela. Starting in 1956, Francisco Montbrun (1913-2007) led a group of professors who promoted the creation of the “José María Vargas” School of Medicine at Universidad Central de Venezuela (25,26). Montbrun was one of the founders of this new medical school and head of its new anatomy chair in 1960, where he carried out pedagogical and structural reforms, teaching classes until his retirement in 2001. His lectures were governed by Henri Rouviere’s treatise on anatomy. Montbrun did not only outstanding work in teaching but also contributed with his books on Neuroanatomy. Moreover, Francisco Montbrun prepared a number of meritorious anatomists, who continued to improve the teaching of human anatomy at “José María Vargas” medical school (26,27).

### Medical studies in other Venezuela regions

In 1810, Universidad de Mérida de los Caballeros was founded, but the teaching of Medicine was interrupted on many occasions by the bloody and prolonged war of independence and subsequent rebellions, which is why no doctors graduated from this university until after 1860 and in small numbers. Only much later, the teaching of medicine began to expand with the founding of Universidad del Zulia in 1891 and Universidad de Carabobo in 1892 (2,28). The contributions of these other universities in the training of physicians during the 19th century in Venezuela were minor in terms of the number of graduates during this period of time. Subsequently, the contribution of these and other new universities to medical studies began to manifest itself progressively in the 20th century, adding Universidad Experimental Francisco Miranda at Coro on Falcon state and Universidad Experimental Romulo Gallegos on San Juan de Los Morros in Guarico state, both founded in 1977.

### DISCUSSION

The medical studies conducted by Lorenzo Campins y Ballester were from their inception in 1763 and during the 19th century in Venezuela

confined first to the Royal and Pontifical University of Caracas and later to its successors, Universidad de Caracas, renamed by Antonio Guzmán Blanco (president of Venezuela) as Universidad Central de Venezuela in 1884 (29). José María Vargas, as the first rector of the University of Caracas, reformed the studies of Medicine, Surgery, Anatomy, and Chemistry, he lectured and performed anatomical dissections for 25 years. Vargas wrote *Curso de Lecciones y demostraciones Anatómicas en la Universidad de Caracas* in 1838, this book in its time was relevant to medical education beyond its content, also for being the first to be published on this subject in Venezuela. Even under precarious conditions for medical education, a saga of anatomists managed to persist in anatomical studies in Venezuela (30). In the 20th century, a progressive development and improvement of anatomical studies began, led by Luis Razetti and later improved by José Izquierdo. Subsequently, these improvements were promoted and developed in both medical schools of the Central University of Venezuela by Jesús Yerena, founder of its Anatomical Museum, and by Francisco Montbrun, founder of “José María Vargas” Medical School and its chair of anatomy.

#### REFERENCES

- González M. Lorenzo Campins y Ballester Moisés: Quijote, Apóstol y Héroe de la medicina venezolana, Universidad Central de Venezuela. CDCH, Caracas. 2006;175-176,331,383.
- Archila R. Historia de la Medicina en Venezuela. Universidad de Los Andes, Ediciones del Rectorado. 1966;191-204, 207-211, 248-249, 282-286. Mérida.
- Ceferino A. Los estudios Anatómicos en Venezuela Prensa Cilíndrica Sociedad de Salud Pública, Caracas, Venezuela. 1963:1-94.
- Perera A. Historia de la Medicina en Venezuela. Imprenta Nacional. Caracas. 1951;129-135,139-148,155-156.
- Dos Ramos F, Carrasco M, Chacín L. El primer texto utilizado para la docencia Médica en Venezuela. Arch Hosp Vargas. Caracas. 1999:83-85.
- Torchia J. Un manuscrito médico filosófico del siglo XVIII en Venezuela Anuario de Filosofía Argentina y Americana. 2001-2002;18-19,163-176.
- Villanueva L. Biografía del Doctor José Vargas. 1883 Caracas, Imprenta Nacional, Reimpreso. 1954:340-362.
- Romero Reverón R. José María Vargas (1786-1854). Un anatomiste Vénézuélien. Vesalius. 2020;XXVI, 2:77-85.
- Puigbo J. Vargas José María (1786-1854). En Diccionario Biográfico Médico Hispanoamericano. 1556. Editorial Ateproca, Caracas, Venezuela, 2007. ISBN 980-6905-253.
- Romero Reverón R. La labor educativa del Dr. José María Vargas en anatomía humana y otras ciencias. International J Morphology. 2014;32(3):794-797.
- Bruni B. José María Vargas. Obras Completas. I-VI. Talleres Gráficos de Ávila Arte. Caracas. 1986.
- Romero Reverón R. José María Vargas (1786-1854): Reformer of anatomical studies in Venezuela. Clin Anat. 2013;27(2):150-153.
- Angulo L. Resumen Cronológico de la Historia de la Medicina en Venezuela. Editor Angulo Fontiveros, Caracas. 2015;108-114.
- De Los Ríos J. José Briceño Carmona. En Médicos Venezolanos. 1893:95-105.
- Rodríguez P. Historia Médica de Venezuela hasta 1900, Editores Parra León Hermanos, Caracas. 1931;229-230,300,327-328,385-386.
- Briceño-Iragorry L, Valero G. Don José de Briceño Colección Razetti. VII. (5). Caracas: Editorial Ateproca; 2009;127-149.
- Ceferino A. Dr. Alejandro Frías Sucre. Historia de la Medicina en Venezuela. Sesenta Figuras Médicas en la Segunda mitad del siglo XIX. Universidad Central de Venezuela, Caracas. 1965;5:1-3.
- Briceño-Iragorry L. Grandes maestros de la cirugía venezolana. Gac Méd Caracas. 2004;113:(1):65-71.
- Montbrun F. Razetti, anatomista. Colección Razetti. I. Caracas: Editorial Ateproca; 2005:159-171.
- Álvarez A. Instituto Anatómico Dr. José Izquierdo. Cien Años de Historia (1911-2011). 37-52, 82-83. Impresos Rubel C.A., Caracas ISBN 978-980-18-0568-7
- Plaza Izquierdo F. José Izquierdo. Científico, humanista y cristiano. Caracas: Edic Trípode; 1989. ISBN 980-208-122-1.
- Gómez J, Briceño-Iragorry L, Rabi M. Izquierdo Esteva José Benito de la Consolación (1887-1975). Diccionario Médico Biográfico Hispanoamericano. Caracas: Editorial Ateproca; 2014;25-1381. ISBN 980-6905-25-3.
- Loyo D, Blandenier C. Jesús Yerena: Fundador del Museo Anatómico del Instituto Anatómico de la UCV. Revista de la Facultad de Medicina. 2008;31(1):75-80.
- Gómez J, Briceño-Iragorry L, Rabi M. Jesús Yerena (1917-1970). Diccionario Biográfico Médico Hispanoamericano. Caracas: Editorial Ateproca; 21-1572. 2014. ISBN 980-6905-25-3.

## ANATOMICAL STUDIES DURING 1763-1963

25. Montbrun F. Apuntes sobre la historia de la Escuela José María Vargas. Rev Facul Med Caracas. 1992;15(2):144-146.
26. Cruz L, Romero Reverón R. Francisco Montbrun (1913-2007), outstanding Venezuelan anatomist. Rev Arg de Anat Clin. 2020;12(3):144-149.
27. Briceño-Iragorry L, Plaza RF, Plaza IF. Francisco Montbrun (1913-2007). Doctores Venezolanos de la Academia Nacional de Medicina. Caracas: Editorial Ateproca; 2014:330-332. ISBN 978-980-415-006-7.
28. Parra A. Eloy Paredes. Fernández Peña, el Rector Guerrero. Mérida, Ediciones del Vicerrectorado Académico-ULA. 1998:9-50. <http://web.ula.ve/archivohistorico/> 2017/03/02/dr-eloy-paredes-1814-1880/
29. Decreto del 24 de septiembre de 1884. Art. 5. Leyes y Decretos de Venezuela. Tomo10:443, documento número 2.453. Reedición de la Academia de Ciencias Políticas y Sociales. Caracas, Venezuela; 1983;20.
30. Romero Reverón R. La Evolución en los Estudios Anatómicos en Venezuela durante el Siglo XIX. The evolution in anatomical studies in Venezuela during the 19th century. Gac Méd Boliviana. 2022;45(1):56-59.