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History of Medicine

A historical discovery and testament of a collaboration: Liberato João Affonso Di Dio's dedication to Antônio Zappalá

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This article explores the historical and academic significance of a 1958 book containing a dedication from Liberato João Affonso Di Dio to Antônio Zappalá, two of the most influential anatomists in Brazil. The inscription, a tribute of affection and respect, reflects the connection between these renowned scholars and their pivotal roles in shaping modern anatomical education. Di Dio, a global leader in anatomy, influenced generations of anatomists, including Zappalá, who brought methodologies from the Boverian School to the Federal University of Pernambuco (UFPE). This study also provides a brief historical overview of UFPE's Anatomy Department, tracing its evolution from the early 20th century to its current contributions to anatomical research and education. By contextualizing the relationship between Di Dio and Zappalá, the article highlights their enduring impact on anatomy and medical education in Brazil.

Keywords
Liberato João Affonso Di Dio, Antônio Zappalá, Anatomy education, UFPE Anatomy Department, Boverian School, anatomical history, Brazil

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Introduction

In the world of anatomical science, where contributions shape the trajectory of medical understanding, the personal connections between scholars often remain an overlooked yet fascinating aspect of history. Recently, we came across a book, dated 1958, with an invaluable dedication written by Liberato João Affonso Di Dio, one of the most esteemed anatomists of the 20th century, to Antônio Zappalá, a pioneering Brazilian professor of descriptive anatomy. The inscription reads: *"To the dear Professor A. Zappalá, as a tribute and proof of affection. 4.12.1959."* (Figure 1).

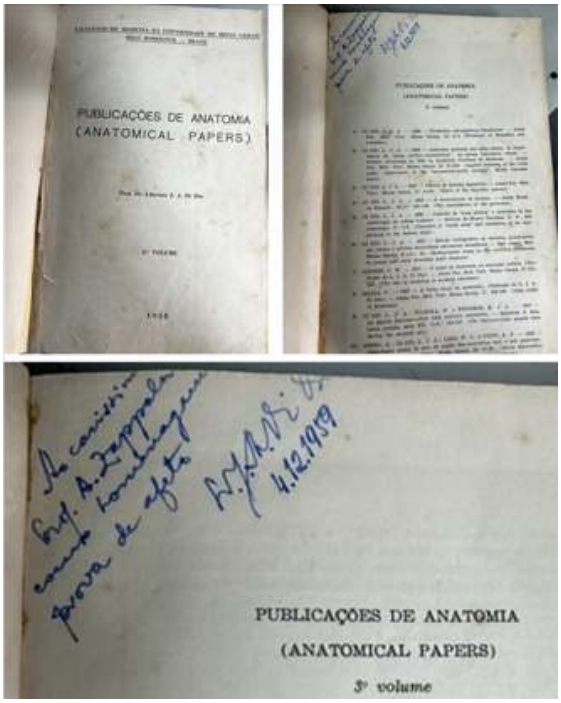

Figure 1. *Publicações de Anatomia* (Anatomical Papers), Volume 3, published in 1958 by Prof. Dr. Liberato J. A. Di Dio at the Faculty of Medicine, University of Minas Gerais, Brazil. The right image shows a handwritten dedication by Di Dio to Antônio Zappalá, dated December 4, 1959, expressing his respect and affection for his colleague. This book highlights Di Dio's significant contributions to anatomical research and education.

This book was found in a cabinet in one of the rooms of the Anatomy Department at Universidade Federal de Pernambuco (UFPE), among many classic anatomy books in a small, improvised library. Upon leaving UFPE, Zappalá may have forgotten this historical treasure.

This discovery not only sheds light on the relationship between two important anatomists but also provides a glimpse into the spirit of collaboration and mutual respect that underpinned their careers.

The dedication and its context

The dedication highlights the personal and professional esteem Di Dio held for Zappalá. Written shortly after Zappalá assumed the chair of descriptive anatomy at the University of Recife (now Federal University of Pernambuco, UFPE), the message suggests a bond forged through shared academic pursuits and a commitment to advancing the field of anatomy in Brazil.

At the time, both scholars were deeply involved in transformative efforts in medical education. Di Dio, already an internationally recognized anatomist, had been instrumental in the standardization of anatomical nomenclature through his contributions to the *Nomina Anatomica*. Meanwhile, Zappalá, at just 28 years old, had become the youngest Full Professor of Anatomy in Brazil. His innovative thesis on splenic vascularization was groundbreaking, setting the stage for changes in surgical practices worldwide (1–4).

Liberato Di Dio: A Global Pioneer

Liberato João Affonso Di Dio (1920–2004) was renowned for his contributions to anatomical research and education. Having earned his doctorate in 1950 and completed postdoctoral training in Italy, the United States, and Brazil, Di Dio championed hands-on anatomical education. His work on the *Nomina Anatomica* helped establish a universal language for anatomical structures, enhancing communication across disciplines and cultures (1,5).

Di Dio's dedication to teaching and research took him to prestigious institutions, including Rockefeller University, Northwestern University, and the University of Toledo, where he helped establish its College of Medicine. His prolific output of over 100 scientific articles and numerous books cemented his legacy as a global leader in anatomy.

Antônio Zappalá: A Rising Star in Anatomy

Antônio Zappalá (1931–1996) was an exceptionally talented anatomist who followed in the footsteps of mentors like Di Dio. A Full Professor by the age of 28, Zappalá revolutionized surgical approaches to the spleen through his research. His thesis on splenic vascularization had global implications, influencing both pediatric and adult surgical practices (2–4).

In 1959, Zappalá assumed the Chair of Anatomy at the University of Recife. His chair was contemporary with the appointments of Full Professors Luiz Carvalho Tavares da Silva (Surgical Clinic, 1959), Geraldo de Sá Cavalcanti de Albuquerque (Otorhinolaryngology, 1958), Luiz Siqueira de Carneiro (Microbiology and Immunology, 1960), Manoel Caetano Escobar de Barros (Neurology, 1960), and Amaury Domingues Coutinho (Internal Medicine, 1960) (6).

Zappalá played a key role in modernizing the discipline (See a timeline of the members of this Department on Table 1). His contributions to anatomy extended to collaborative research with Di

Dio, reflecting their shared dedication to scientific progress, as part of the renowned Boverian School of Anatomy, which emphasized meticulous research and evidence-based anatomical studies. In his inaugural address, he proudly affirmed his commitment to upholding the principles of the Boverian tradition at UFPE (5).

Table 1. Professors of Anatomy Department - Federal University of Pernambuco – 1920 to 2025.

Name	Date of Appointment	Area of Graduation	Date of Retirement	Highest Academic Title	Thesis
Luiz Gonzaga de Souza Góes	1920	Medicine	1955	Doctor of Medicine	Clilorose (1906)
Odilon da Cunha Gaspar	NL	NL	1958	NL	NL
Avelino Heitor Nogueira Cardoso	1932	Medicine	NL	Libre-docente and Emeritus Professor of Medical School of Pernambuco (UPE) *in memoriam*	Essays on the Cardio-Pedicular Form in Adults (1932)
Ruy Neves Batista	1939	Medicine	NL	Libre docente	Anatomy of the Ciliary Ganglion (1941)
Henrique Freire de Barros	1951	Dentistry	NL	Libre docente	NL
Bianor Germano da Hora	1955-1956	NL	1981 (UFPE)	Libre-docente and Full Professor	Anatomical Research on Splanchnic Nerves in Humans (1956). Anconeus Muscle: Contribution to the Study of Its Architecture and Functions (1959)
Antônio Zappalá	**1959**	**Medicine**	**NL**	**Full Professor**	**Contribution to the Study of the Vessels and Vascular Zones of the Spleen (1959)**
Paolo Contu	NL	NL	NL	NL	NL
José Pandolfi	NL	NL	NL	NL	NL
Celso Mattos	1959	NL	1995	NL	NL
João Rodrigues Sampaio	1961 (as professor)	Medicine	NL	Libre docente	NL
Gerardo Rodrigues Sampaio	1961 (UFPE)	Dentistry	NL	Libre docente	Testicular Artery
Joaquim Costa Carvalho	NL	Medical-Surgical Anatomy & Hygiene	NL	NL	NL
Jennecy Sales Cavalcanti	1979	Medicine	2010	Doctorate – PhD in Morphofunctional Sciences	Left Veno-Atrial Region: Morpho functional Stratigraphy (1989)
Aluízio José Bezerra	1979	Biomedicine	2001	Master of Science	Consideration on the Palmar Branch of the Median Nerve (1984)
Adelmar Afonso de Amorim Jr.	1979	Veterinary Medicine	2014	Doctorate – PhD in Anatomy of Domestic and Wild Animals	Systematization of the Caval Veins of Bubalus bubalis (2000)
Antonio Romeu Cabral de Medeiros	1981	Surgeon-Dentistry	NL	Doctorate	Inferior Mesenteric Vein: Morphologic and Functional Study
Austregezilo Vieira da Costa Sobrinho	1983	Biological Sciences	2017	Doctorate – PhD in Morphofunctional Sciences	Study of the Palatine Mucosa of the Teiú Lizard, (*Tupinambis teguixin*). Observations Using Light Microscopes and Transmission Scanning Electron Microscopes.
Alexandre Motta Bittencourt	1981	Biomedicine	2009	Doctorate – PhD in Morphofunctional Sciences	Sympathetic and Parasympathetic Innervation of the Thymus in Rats (1987)
José Ricardo Barro de Pernambuco	NL	NL	NL	NL	NL
José Antonio Cardoso	1986	Biomedicine	2012	Specialist Human Anatomy	NL
Silvia Regina Arruda de Moraes	1986	Physiotherapy	2020	Doctorate – PhD in Morphofunctional Sciences	Morphological, Histochemical and Ultrastructural Aspects of the Myenteric Plexus and Esophageal Muscular of the Mice (*Mus musculus)* during Chronic Infection by Trypanosoma cruzii
Elizabeth Neves de Melo	1992	Biological Sciences	Active	Doctorate – PhD in Cell Biology	Comparative Study of Testicular Structures and the Spermatogenic Process in Donkeys (*Equus asinus*) and Mules (*Equus mulus mulus*)

Continnued Table 1. Professors of Anatomy Department - Federal University of Pernambuco – 1920 to 2025.

Name	Date of Appointment	Area of Graduation	Date of Retirement	Highest Academic Title	Thesis
Maria de Fátima Galdino da Silveira	1992	Biological Sciences	Active	Doctorate – PhD in Biology	Maternal Thyroid Dysfunctions in the Pre-Fertilization Period Program Thyroid Function and Somatoneural Development Of The Offspring (2004)
Etenildo Dantas Cabral	1996	Dentistry	Active	Doctorate – PhD in Collective Health in Dentistry	Influence of the Patient's Race on Dentists' Decisions to Extract or Preserve a Severely Decayed Tooth - A Study in the city of Recife (2004)
Vanildo Júnior de Melo Lima	1996	Physical Education	Active	Doctorate - PhD in Energy and Nuclear Technologies	Development of Pediatric Mesh Phantoms Morphologically Consistent with Human Anatomy for Use in Dosimetry (2011)
Fernanda Maria de Oliveira Villarouco	1997	Biological Sciences	Active	Doctorate – PhD in Environmental Sciences	Morphophysiological Alterations of the Lichen *Cladonia Verticillaris* Used as an Early Warning Bioindicator of Air Pollution (2007)
Carla Cabral dos Santos Accioly Lins	2004	Surgeon-Dentistry	Active	Doctorate - PhD in Odontology	*In Vitro* Evaluation of Photodynamic Therapy in Root Canals Contaminated by *Candida Albicans* (2010)
Sandra Lopes de Souza	2004	Nutrition	Active	Doctorate in Sciences	Serotonergic System: Behavioral and Neuroanatomical Study Through PharmacologicalaAnd Nutritional Manipulation in Neonatal Rats (2005)
Gilberto Cunha de Sousa Filho	2008	Surgeon-Dentist	Active	Doctorate in Dentistry	Effect of the Use of Sugarcane Biopolymer in the Alveolar Regeneration of Rabbit Incisors (2014)
Lígia Cristina Monteiro Galindo	2008	Physiotherapy	Active	Doctorate - PhD in Nutrition	Feeding Behavior and Metabolic Profile: Study of the Potential Programming Effects of Neonatal Treatment with Selective Serotonin Reuptake Inhibitor in Rats (2013)
Manuela Figueiroa Lyra de Freitas	2008	Veterinary Medicine	Active	Doctorate - PhD in Nutrition	Phenotypic and Genotypic Characterization of *Staphylococcus spp*. Isolated from Coalho Cheese and Milk from Cows with Mastitis in the State of Pernambuco, Brazil (2006)
Maria das Graças Wanderley de Sales Coriolano	2010	Physiotherapy	Active	Doctorate – PhD in Neuropsychiatry and Behavioral Science	Surface Electromyography of Muscles Involved in the Swallowing of Patients with Parkinson's Disease (2009)
Ana Cristina Falcão Esteves	2012	Physiotherapy	Active	Doctorate – PhD in Biotechnology and Health	Evaluation of the Biopolymer Extracted from Sugarcane in the Experimental Model of Achilles Tendon Healing (2016)
Renata Cristinny de Farias Campina	2013	Nursing	Active	Doctorate – PhD in Neuropsychiatry and Behavioral Science	Programming of Feeding Behavior Due to Perinatal Malnutrition: A Molecular Study of Nutritional Sensors (2014)
Jaciel Benedito de Oliveira	2014	Surgeon-Dentist	Active	Doctorate – PhD in Animal Bioscience	Action of Botulinum Toxin Type A in the Submandibular-Sublingual Complex of Rats: Morphological, Mycological, Biochemical and Toxicological Study (2017)
Kassia de Oliveira Gomes da Silva	2018	Physiotherapy	Active	Doctorate - PhD in Neuropsychiatry and Behavioral Science	Neonatal Treatment with Folic Acid Associated or Not with Serotonin Reuptake Inhibition Has Therapeutic Action in Cerebral Palsy? - An Experimental Study (2019)
Maria de Fátima Viana Vasco Aragão	2020	Medicine	Active	Doctorate - PhD in Neuropsychiatry and Behavioral Science	Magnetic Resonance Imaging in Astrocytic Tumors: Evaluation of the Association of Existing Patterns with Histopathological Grading (2010)
José Jailson Costa do Nascimento	2023	Nursing	Active	Doctorate - PhD in Neuropsychiatry and Behavioral Science	Diagnostic Accuracy of Cephalic Indices for Basilar Invagination (2021)
Nathalia Alves da Silva	2023	Biological Sciences	Active	Doctorate – PhD in Neuropsychiatry and Behavioral Science	Anatomical Changes in the Brain of Adolescents with Bulimia Nervosa: A Neuroimaging Study (2018)

A testament to collaboration

The discovery of this book and its heartfelt dedication highlights the mutual respect between Di Dio and Zappalá. It serves as a reminder that the progress of science often depends on the exchange of knowledge, mentorship, and camaraderie.

Di Dio's words, *"as a tribute and proof of affection,"* speak to the admiration he held for Zappalá, both as a colleague and as a promising young anatomist. This gesture also illustrates the human side of academic pursuits—a celebration of relationships that transcend generations and geographical boundaries.

Historical artifacts such as the one presented here aggregate deeper layers of meaning by attesting for the existence of bonds between human beings, the kind of relationships they led in life and by preserving clues of their shared emotions (7,8).

Conclusion

This paper presents the recovery of more than a book, or a dedication, but a piece of the shared memory pertaining the development of a medical institution. It is a symbol of the enduring legacy of two extraordinary anatomists who shaped the landscape of medical education and research. Liberato Di Dio and Antônio Zappalá's contributions continue to influence the fields of anatomy and surgery, and their mutual respect and collaboration remain an inspiring chapter in the history of medical science today.

The dedication preserved in this book stands as a testament to the power of mentorship, collaboration, and the bonds forged in the pursuit of knowledge.

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