

Severo Sales de Barros: obituary¹

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With the death of Severo Sales de Barros, aged 90, in Santa Maria, Rio Grande do Sul, Brazil, on August 26, 2022, a light went out in the sky of Brazilian veterinary pathology. Until a few weeks ago he was still producing in the profession he chose so many decades ago. As we pay tribute to Severo, it is fair to say that he laid the foundations and positively influenced the careers of a multitude of veterinary pathologists who directly or indirectly benefited from him (Fig.1).



Fig.1. Professor Severo is in the center of the photo. On the left is one of the co-authors of this obituary (CSLB), and on the right is Prof. Carlos Antonio Mondino Silva. CSLB was introduced to veterinary pathology by Professor Severo, from whom he learned the basics of this science and was guided and supported for many years.

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Severo was born on March 18, 1932, in Júlio de Castilhos, Rio Grande do Sul (RS). He received his degree in veterinary medicine as the top of his class in 1954 at the Universidade Federal Rural do Rio de Janeiro (UFRRJ) (Fig.2). At the beginning of a brilliant career, he worked from May to October of this year on two sheep farms located in Argentina, Tierra del Fuego and Patagonia in the province of Chubut. Back in Brazil, he worked from February 1957 to March 1958 as a veterinarian responsible for the sanitary inspection of farm animals in the municipality of Tupanciretã (a position known as veterinary inspector), a branch of the Secretary of State for Agriculture of RS. Soon after, he was the first veterinarian to hold the same position in the neighboring municipality of Júlio de Castilhos, his hometown. In December 1958, he was transferred to the Instituto de Pesquisas Veterinárias Desidério Finamor (IPVDF), another institution of the Secretary of Agriculture of the RS. At IPVDF he assembled and implemented a veterinary pathology laboratory.

At the invitation of Prof. Edgardo Trein, Severo, took up a residency position at the Veterinary School of the Universidade Federal do Rio Grande do Sul (UFRGS) working with Professor Wilhelm Brass and Hans Merkt from April 1959 to March 1961.

In March 1964, despite the political uncertainty that shook the country, he took the position of professor of veterinary pathology at the Veterinary School (then in gestation) of the

newly founded Universidade Federal de Santa Maria (UFSM). There he, alone, developed the veterinary pathology course and was the first professor to teach this course.

He was the recipient of an Alexandre von Humboldt Foundation scholarship to study veterinary pathology at the prestigious German institution Tierärztliche Hochschule Hannover (TiHo) from January 1969 to April 1970. Except for this time in Hannover, UFSM was his sole workplace until his retirement in 1991, after which he stayed as Professor Emeritus in that same Institution for five years. During this time, he developed several research projects.

He was Head of the electron microscopy laboratory in the pathology department at UFSM (Fig.3). This laboratory he founded and organized at the end of the 1970s became, for the next three decades, a reference in this area, helping in many projects at UFSM and other Brazilian universities.

In 1978, Severo Barros, Jürgen Döbereiner (Fig.4) and other distinguished colleagues founded the Colégio Brasileiro de Patologia Animal (CBPA), with the primary purpose of editing the journal *Pesquisa Veterinária Brasileira*.

From 1996 to 2007, Severo worked at the Universidade Federal de Pelotas (UFPel), where he also created and organized an electron microscopy laboratory similar to what he had done at UFSM. During this period (1996-2007), his work was financed by Brazil's leading funding agencies, i.e., CNPq, CAPES, and FAPERGS. During the last quarter of that period, he was hired as a faculty member at UFPel.

What was mentioned above is a summary of Severo Sales de Barros' professional trajectory but did not reveal his various achievements and, most of all, the human factor. But these mustn't be forgotten.

Most importantly, Severo established the basis for veterinary diagnostic and necropsies to diagnose livestock diseases in RS (Fig.5). This approach allowed us to unravel the cause



Fig.2. Professor Severo Sales de Barros on his graduation day, in 1954.



Fig.3. Professor Severo Barros, in his laboratory of electron microscopy (EM). He developed the EM at Universidade Federal de Santa Maria (UFSM) and, later, at the Universidade Federal de Pelotas (UFPel). He not only performed diagnostics through EM but personally took care of the maintenance of this delicate equipment. Photo from the second half of the 1980s.

of several conditions. Several students, many of whom are distinguished pathologists today in their own right, were trained in this manner. Before that, pathology laboratories and research institutes in RS approached diagnosis as restricted to the lab's boundaries, examining mailed-in tissue specimens.

Another legacy of Severo to his students is the notion that one's achieve professional excellence through hard work and constantly keeping abreast with the literature of one's field of specialty; it is as simple as that, and there are no shortcuts.

Severo was involved in several important historical events in veterinary medicine – not only in veterinary pathology – research and teaching. He was critical in introducing electron microscopy to improve research in veterinary medicine in RS. He was also a key participant in gathering efforts to master the technique for embryo transfer in the Laboratory of Reproduction and Physiopathology at the UFSM.



Fig.5. House representative Adão Villaverde delivers to Prof. Severo Sales de Barros “O Futuro da Terra” award, 2001 edition, in recognition of his pioneering work in diagnosing diseases of domestic animals.



Fig.4. Severo Barros (left) and Jürgen Döbereiner. Both were outstanding veterinary pathologists and great friends. They graduated in the same class of 1954 at the Veterinary School of the Unviversidade Federal Rural do Rio de Janeiro (UFRRJ).

Prof. Severo also lengthly studied the changes in the endometrium of the mare for the evaluation through endometrial biopsies. This technique is still valuable for practicing equine clinicians and was recently published as an atlas detailing the lesions (Barros & Masuda 2009).

One of many of Severo's research interests involved the effects of poisonous plants on livestock. He made the diagnosis for the first time in 1968 of a form of plant-induced calcinosis in sheep in RS. He called the disease “enzootic calcinosis in sheep” (Barros et al. 1970) and dedicated a great part of his prolific career to studying this disease and other forms of systemic soft tissue mineralization. This evolved, and he continued to study the intricate pathogenetic mechanisms of soft tissue mineralization and made important original contributions to the subject, many of which are published in such prestigious journals as *Veterinary Pathology*, *Journal of Comparative Pathology*, and *Pesquisa Veterinária Brasileira*.

This was a study of a lifetime. In the year of his death, Severo also published a work on this subject (Machado et al. 2022).

Among his most beloved pleasures were good wines, books, and many travels (Fig.6)!

Today we are mourning Severo Sales de Barros, our friend, professor, and mentor.

Requiescat in pace, old friend.

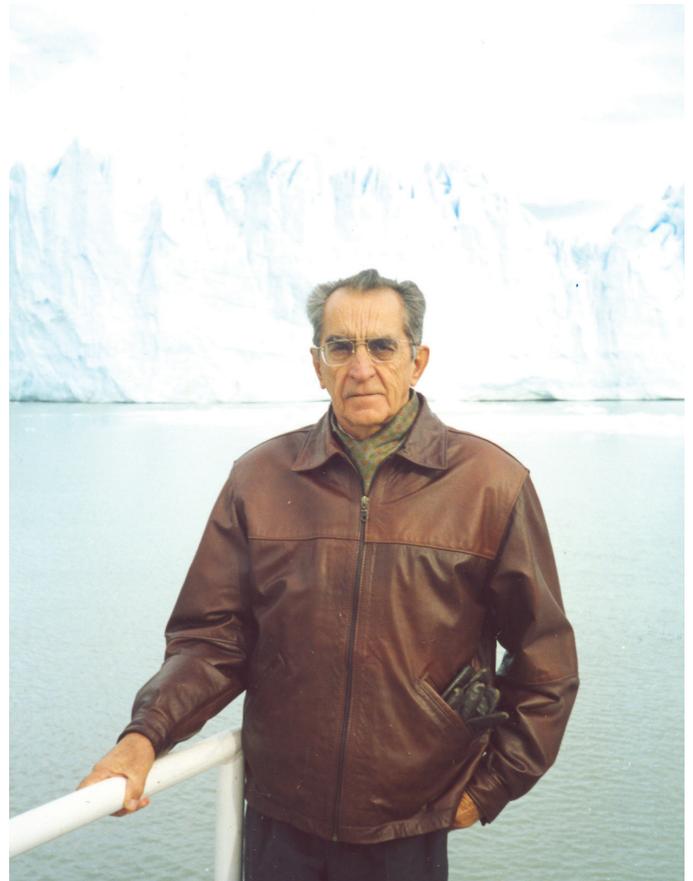


Fig.6. Professor Severo in 2007, on one of his many trips. In the background is the Perito Moreno glacier in El Calafate in Argentinian Patagonia. Traveling was one of Prof. Severo's greatest pleasures, and accompanied by his wife, Elenora, he visited practically every corner of the world.

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