



Cajal and vascular anatomy

Cajal y la anatomía vascular

We have reached the end of the Cajal Triennium, which, since 2022, was intended to commemorate and celebrate the life and legacy of the greatest Spanish scientist of all time.

Don Santiago Ramón y Cajal (Petilla de Aragón, Zaragoza, 1852 – Madrid, 1934) was not only a brilliant scientist, creator of modern neuroscience and Nobel Prize laureate in Physiology or Medicine (1906), but also a true artist. He was possibly one of the last polymaths on planet Earth: he had extensive knowledge of nature, painting, photography, chess, and hypnotism.

Cajal, who was a poor student, made an agreement with his father to continue secondary school on the condition that he enrolled in Drawing. His teacher León Abadías, a disciple of Madrazo and member of the Royal Academy of Fine Arts of San Fernando, recognized in Cajal great aptitude as a painter. Medicine enabled Cajal to develop this passion (1).

His beautiful illustrations of nervous structures constitute true masterpieces of pictorial art. *New York Magazine*, in 2018, when commenting on a traveling exhibition of Cajal's work in the United States, placed his drawings at the level of those produced by Leonardo and Michelangelo. They were defined as "an exceptional combination of scientific rigor and artistic expressiveness" (2).

Among his pictorial work, during his time as a medical student (c. 1870-72), several oil paintings on vascular anatomy stand out, which we have been able to appreciate in a recent exhibition at the *Museo Nacional de Ciencias Naturales de Madrid* (current home of the Cajal legacy), and which we wish to share with all "vascular" colleagues (Fig. 1). This is our small tribute to this universal Spaniard.

Of note, the existence of Cajal's *Atlas of Anatomy*, currently restored and preserved in the General Library of the University of Zaragoza. It is an enormous volume (1385 × 950 × 9.5 cm and approximately 60 kg in weight), with wooden covers lined with burlap, leather spines and corners, and two metal clasps, containing 34 sheets with 49 color plates; of these, the first twelve are traditionally attributed to Cajal and were produced between 1877 and 1883. They are drawn dry, in pastel, or with chalks or crayons, with some charcoal strokes, on thick blue paper (3) (Fig. 2).

Conflicts of interest: The authors declare no conflicts of interest.

Artificial intelligence: The authors declare that they did not use artificial intelligence (AI) or any AI-based tools in the writing of this article.

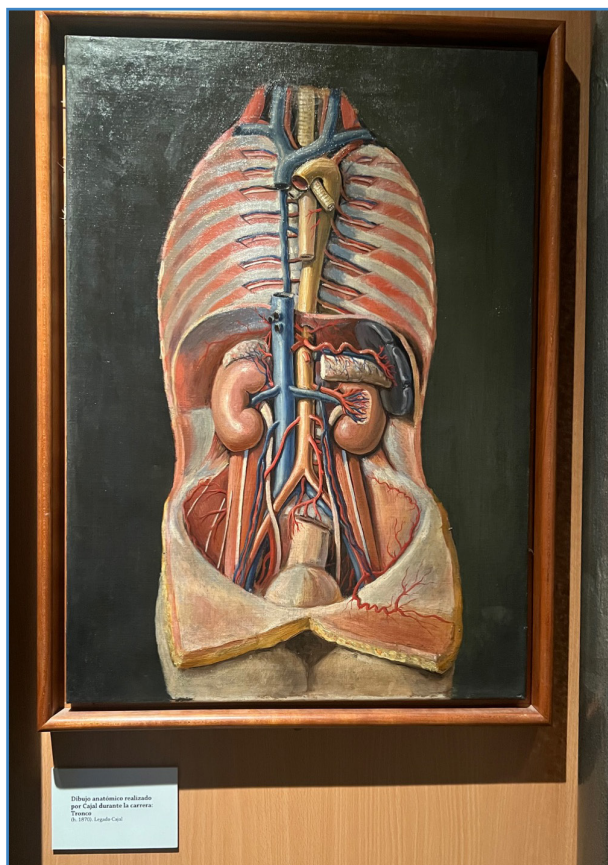


Figure 1. Trunk. Oil painting (c. 1870). Belonging to the Cajal Legacy. Museo Nacional de Ciencias Naturales (Madrid).

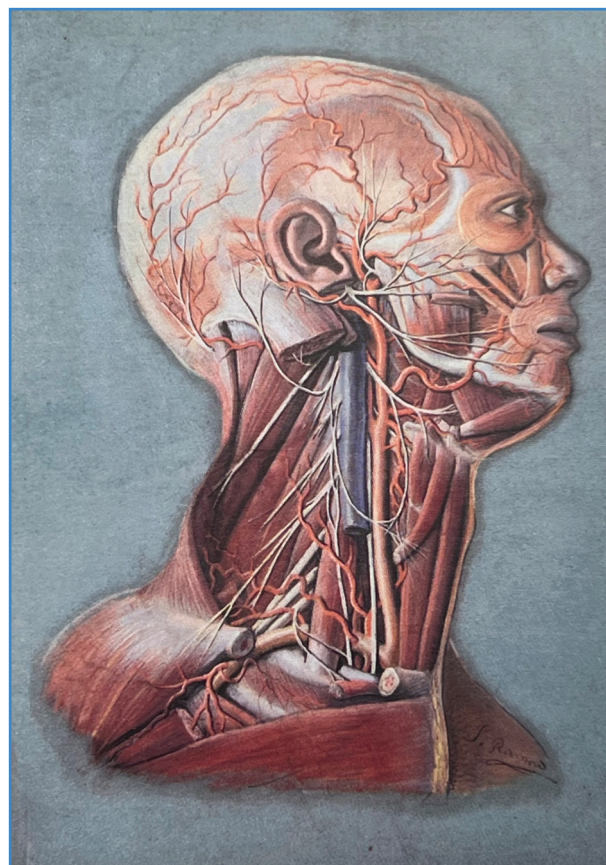


Figure 2. Plate from the anatomical atlas. General Library of the University of Zaragoza (1877-1883). In the lower right corner, Cajal's signature (S. Ramón) can be observed.

Finally, we wish to emphasize, as has been reiterated throughout this triennium, that Cajal's contribution remains alive. It is sufficient to highlight that he exemplified the ideals of humanism and was a tireless advocate of the need to cultivate scientific curiosity, especially among the young.

Francisco S. Lozano Sánchez¹, Jorge Muriel Fernández²

¹Department of Angiology, Vascular and Endovascular Surgery. Complejo Asistencial Universitario de Salamanca. Instituto de Investigación Biomédica de Salamanca (IBSAL). Emeritus Professor of Vascular Surgery. University of Salamanca. Salamanca, Spain.

²Department of Surgery. Faculty of Medicine. Universidad de Salamanca. Salamanca, Spain

REFERENCES

1. Ramón y Cajal S. Recuerdos de mi vida. Historia de mi labor científica. Madrid: Alianza Editorial; 1981.
2. Alonso JR. Citas con Cajal. Palencia: Menoscuarto Ediciones; 2024.
3. Moralejo Álvarez R. El atlas anatómico de la Facultad de Medicina de la Universidad de Zaragoza. La recuperación de una pieza importante del patrimonio histórico universitario. *Pecia Complutense* 2012;9(16):89-95.