

## Did the representation of brain convolutions seen in the wax of Susini-Boi, now in Cagliari and dated 1803, influence Luigi Rolando?

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Luigi Rolando (1773-1831) discovered several features of the central nervous system and, in particular, the paired central gyri on either side of the central fissure which is named after him. In his time, the convolutions were called enteroid processes according to Erasistratus (II C. B.C.) who did assimilate them to the mobile intestinal loops. Rolando was the first to deny such belief, stating in 1828 that convolutions have specific shapes and positions [1]. In 1804, Rolando left for Sardinia having been offered by Vittorio Emanuele I the Chair of Anatomy of the University of Sassari. However, owing to an epidemic of yellow fever in the harbor of Livorno, he went to Florence. There he met the old Felice Fontana who had been the founder of La Specola Museum. He became friends with Paolo Mascagni, the Chairman of the Anatomy School of the Hospital of S. Maria Nuova and principal anatomist of La Specola. Thanks to the latter, he worked in both institutions, not only improving his knowledge of anatomy, but also learning the art of engraving and of ceroplastics, under guidance of Clemente Susini. In the years of Rolando permanence, Susini was collaborating with the Sardinian anatomist F. Boi who, since 1801, was working in Mascagni's lab. Boi had been ordered by Carlo Felice of Savoy to commission to Susini, head modeler of La Specola, a collection of anatomical waxes for his museum in Cagliari. Thus, it is very likely that Rolando was acquainted with the models of Susini-Boi since, by the end of 1804, several waxes were completed, including those on the nervous system. Surely, Rolando saw the one contained in box XIII, dated 1803, where there is a correct representation of the brain convolutions with the pre- and post-central gyri and the intervening fissure [3]. Moreover, a further evidence of Rolando's knowledge of Susini's and Boi work results from the wax molds of the superior part of brains, transversally sectioned at the level of the start of the lateral fissure, which are exhibited in Sassari Anatomical Museum since his stay (1807-1814) there. They were casted by Rolando himself and show convolution patterns similar to those of the wax of Cagliari.

### References

- [1] Rolando (1828). *Saggio sopra la vera struttura del cervello etc.* 2nd ed Marietti, Torino.
- [2] Pirino & Montella (1999). *Ann Storia Univ It* 3: 235-238.
- [3] Riva et al. (2010). *J Anat* 216: 209-222.

### Key words

Luigi Rolando, cerebral convolutions, Clemente Susini, Francesco Boi.