

Research Article: History of Anatomy and Embryology

## The first Anatomy professors in the Medical School of the University of Athens

Maria Piagkou<sup>1,\*</sup>, Georgios Androutsos<sup>2</sup>, Theano Demesticha<sup>3</sup>, Dimitrios Lappas<sup>1</sup>, Marianna Karamanou<sup>2</sup>, Giannoulis Piagkos<sup>1</sup>, Panayiotis Skandalakis<sup>1</sup>, Konstantinos Piagkos<sup>1</sup>

Departments of <sup>1</sup>Anatomy and <sup>2</sup>History of Medicine, School of Medicine, Faculty of Health Sciences, University of Athens, Athens, and <sup>3</sup>Department of Anaesthesiology, Metropolitan Hospital, Piraeus, Greece

Submitted August 10, 2011; accepted December 2, 2011

### Summary

The purpose of this historical review is to add new elements to the international literature in relation to the birth and progress of the science of anatomy in modern Greece. Step by step, it outlines the efforts of prominent Greek anatomists to establish the course of the basic science of anatomy in the newly founded Medical School, the laborious effort to collect cadaveric material, to compile museum anatomical collections and to gradually build the foundations of modern anatomy science at the Medical School of the Athenian University.

### Key words

History of medicine; medical education; teaching; Dimitrios Mavrocordatos; Loukas Papaioannou; Georgios Sclavounos.

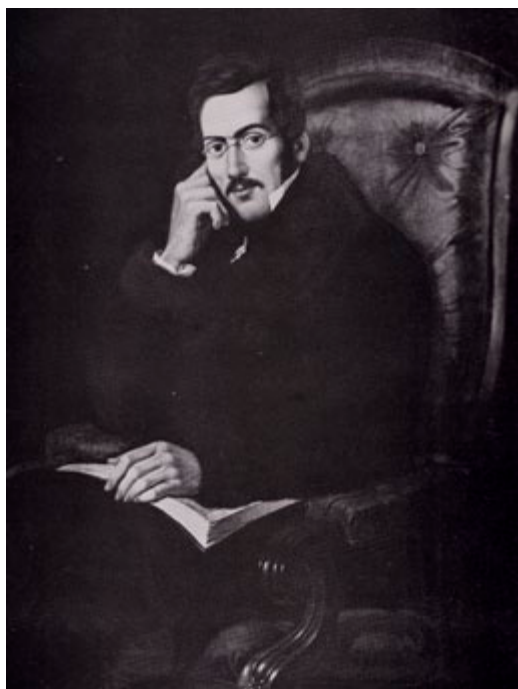
### Introduction

The dawn of the science of anatomy in modern Greece is interwoven with the establishment of the first academic institution in the newly established Greek State. The idea of founding the University was born during the revolution years, was adopted by Ioannis Kapodistrias and materialised during the early reign of king Otto (Pantazidis, 1889). This era began a very important period for the anatomy science in Greece with great personalities that left their mark.

### Dimitrios Mavrocordatos (1811 - 1839)

This was the first professor teaching anatomy at the Medical School of the Othoman University: he started at the age of 27 years (Fig. 1). Mavrocordatos studied medicine at Berlin and worked on anatomy under professor Friedrich Tiedemann (1781–1861) in Heidelberg (Foustanos, 1900). His most important work, the *"Anatomy of the Human Body"* (1836) was the first writing on anatomy in the Greek language. On January 1837, Mavrocordatos was appointed professor of anatomy and physiology at the newly established University. Unfortunately, the talented young professor

\* Corresponding author. E-mail: [mapian@med.uoa.gr](mailto:mapian@med.uoa.gr).



**Figure 1** – Portrait of Dimitrios Mavrocordatos, the first professor teaching anatomy in Athens University (Oil painting by D.Tsokos).

left his last breath due to tuberculosis on the 5<sup>th</sup> of November 1839 (Koumaris, 1939). The culmination of Mavrocordatos' passionate love for the anatomical science and the University community was manifested through the bequest of his house to the University, with aim the awarding of two scholarships to the best but financially more disadvantaged students of the Medical School (Pan-Hellenic Society of the History of Medicine, 2002).

### **Damianos Georgiou (1809-1899)**

Damianos Georgiou studied medicine at Leipzig, Berlin, Heidelberg and Wurzburg. On the 16<sup>th</sup> of January 1840, after the untimely death of Mavrocordatos, Georgiou was appointed professor of anatomy and physiology. He taught anatomy from 1840 to 1883 (Koumaris, 1939). With Georgiou, the first attempts to find cadaveric material for student practice took place. However, his efforts proved futile and thus, in 1841, the teaching of anatomy was mainly theoretical and took place in a small old building which had room for just two anatomy tables. The students practised for one hour each day on cadavers coming from the nearby City Clinic (those who had no relatives) and their numbers did not surpass twelve per year (Kouzis, 1939). The rarity of cadaveric material lead Georgiou to seek as solution in manufacturing

dry preparations, which were widely used in European Universities (Marketos et al., 1987). In 1872-1873, Georgiou receives from Paris the essential for study preparations by Louis Auzoux and in 1883, the famous Collection of wax cast workings of Konstantinos Valsamakis (professor of the Ionian Academy). The wax models had been made by the Anatomist Felice Fontana (1730-1805) from Florence (Koumaris, 1939; Momferratou et al., 1999).

### **Loukas Papaioannou (1831-1890)**

Loukas Papaioannou was one of the greatest Greek scientists of the past century, who studied medicine at Athenian University and worked specifically on anatomy in Paris (Fig. 2). In January 1883, he assumed the position of professor of anatomy. Loukas Papaioannou is the creator of modern anatomical terminology. He is considered as the one who introduced 2.700 new anatomical terms. Papaioannou, after three years of continuous labour, published his magnificent three-volume work "*The Human Anatomy*" (1888), an anatomy handbook including embryology and microscopic anatomy with 500 pictures, a writing feat at the time. In 1887, he prepared an embryological collection for teaching embryology. He was such a talented anatomist, that professor Fort taught many times on his anatomical preparations (Koumaris, 1939). The anat-

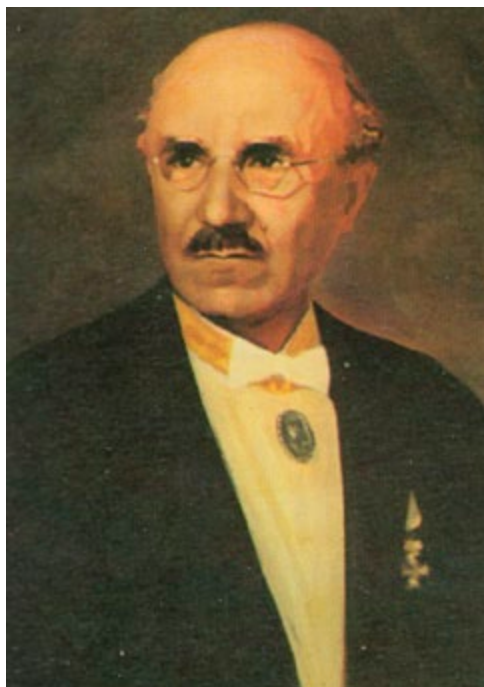


**Figure 2** – Professor Loukas Papaioannou.

my hall of the anatomy laboratory of Athens University Medical School was renamed to *Loukas Papaioannou Anatomy Hall* in his honour (Pantazidis, 1889).

### **Georgios Sclavounos (1868-1954) – the reformer of Greek anatomy**

Georgios Sclavounos studied medicine at Wurzburg and worked as a research assistant next to the famous Swiss histologist and great anatomist *Rudolph Albert von Kolliker* (1817-1905) for two years (Fig. 3). Sclavounos collaborated with the great anatomists *Sobotta, Schultze and Braus*. In 1893 was appointed lecturer in anatomy, in 1895 curator of the anatomy laboratory and in 1899-1900 was elected professor and director of the Institute of Anatomy (Sclavounos, 1900). Sclavounos introduced the anatomical research and many anatomical terms in the Greek medical literature. This is when Greek anatomical science began to be comparable with its western counterpart (Koumaris, 1939). In 1906, Sclavounos issued the first volume of his three-volume monumental scientific work "*Human Anatomy*". For his book decoration, he borrowed anatomical tables from professor *W. Spalteholz*, histological and anatomical images from professors *J. Sobotta* and *O. Schultze*. The 48 images of Sclavounos' book were depictions of his own preparations and are astonishing for the precision of details.



**Figure 3** – Portrait of Georgios Sclavounos (oil painting – Anatomy Museum of the Medical School of Athens University).

Sclavounos used *the pyrographic technique* for the description of the adhesion of the muscles, including bone combustion with thermal cautery at the adhesion points of the muscles (Laskaratos, 2000). In 1933-1934, he inaugurated the new large anatomy laboratory in Goudi, one of the most modern in the world. Sclavounos' 40-year professorial career and his monumental research work in Greece were recognized through his election as a life member of the German Anatomical Society and his selection as a founding member of the Academy of Athens (Sclavounos, 1900).

## Conclusions

As such a very important and fruitful period for anatomy, as a science in Greece closed, undoubtedly the personalities that left their mark in that period were Dimitrios Mavrocordatos, Loukas Papaioannou and Georgios Sclavounos, who laid the foundations for the organization and operation of Anatomical Institutes in Greece and created the rudiments of the official Greek anatomical terminology.

## References

- Foustanos J. (1900) Histoire de la presse médicale Grecque. La Grèce Médicale 2: 84–85.
- Koumaris I.G. (1939) History of Human Anatomy in Greece, D.B. Delidimitri Publishing, Athens, pp. 14-25.
- Kouzis AP. (1939) National and Kapodistrian Athens University, Centenary 1837-1937. C' History of the Medical School, Issue A'. University Publishing Management, Athens, pp. 12-14.
- Laskaratos I. (2000) Medical School of Athens University, Its Foundation and Operation in the 19<sup>th</sup> Century (1837-1900). 1999 Diary, Association of Scientific Teaching Staff of Medical School. Paschalidis Publishings, Athens, pp. 57-58.
- Marketos S., Stavropoulos A., Krumbholz B. (1987) The First Steps of the Medical School of Athens University. Mater Med Greca 15: 427-430.
- Momferratou E, Lappas D, Leonardou P, Leonardou A. (1999) Konstantinos Valsamakis. His Life, His Collection and Wax Anatomical Models of Bologna. Athens, pp. 2-7.
- Pan-Hellenic Society of the History of Medicine. (2002) About the Human Nature, Anatomy and Physiology from the Antiquity until the Beginnings of the 20<sup>th</sup> century. Siokis Medical Publishings, Thessaloniki, p. 103-105.
- Pantazidis I. (1889) Chronicle of the First Fifty Years of the Greek University under the Order of the Academic Senate. Paliggenesia Printing, Athens, p 3.
- Sclavounos G. (1900) On the First Embryonic Cell and Its Association with the Completed Organism Cells. Initiation speech given at the Anatomy Amphitheatre on the 11<sup>th</sup> of November 1899. Perri Brothers Printing, Athens, p 29.