# Professor Carl Ernst Emil Hoffmann (1827–1877). Majesty of Anatomy and Anatomical Pathology

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Dear Editor.

Professor Carl Ernst Emil Hoffmann (1827–1877) (Fig. 1A) was one of the most important figures in the field of Anatomy and Pathology in the European medical world during 19th century. Born on April 27, 1827, in Darmstadt, Hoffman started his academic education attending courses on Natural science in the Universities of Würzburg and Jena. It was 1850 when he participated in the State National Examinations succeeding in receiving the title of "Pharmacist" in Hessen. A short time period passed, during which Hoffman was working as an apothecary and simultaneously was studying at the Gymnasium of Darmstadt. Soon, he became a student in the Medical Schools of both the Universities of Giessen and Würzburg [1, 2].

It was in Würzburg where he succeeded as an assistant to Rudolf Ludwig Carl Virchow (1821–1902) at the "Anatomical pathology Institute". Soon after, he defended his thesis titled "Über Resorption der Fette und des Quecksilbers" (About absorption of fats and mercury), receiving his Doctoral degree with honorably distinction [3]. In 1856 he had exercised medicine in Giessen as a general practice physician after passing his state exams. In 1858 a prestigious academic career was started. He was appointed as a Prosector and Assistant of Physiology under Professor Conrad Eckhard (1822–1902) at the University of Giessen. A subsequent placement in the Medical School at the University of Basel, where

Anatomy and Evolutionary History of the species had been offered to him in 1872. In 1875 he was elected Rector of the University of Basel [1, 2].

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in 1863 he was elected Prosector and Lecture of Pathologi-

cal Anatomy, followed. His skills and dedication resulted

to be named as a Prosector and Extraordinary Professor of

Pathological Anatomy. The position of Ordinary Professor of

Hoffman wrote in 1858 his treatise "Uber das endosmotische Aequivalent des GlaubersalzesAbout" studying the endosmotic equivalent of the Glauber's salt, a miraculous for the era general purpose laxative [4]. Hoffman was eager to unveil secrets in anatomy and physiology while corpses were rare especially for non-prominent members of the medical field. Thus with his 1860 work "Beiträge zur Anatomie und Physiologie des Nervus vagus bei Fischen" he had accom-

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Fig. 1. Professor Carl Ernst Emil Hoffmann (1827–1877), portrait from: Teichmann A. (A) Die Universität Basel in den fünfzig jahren seit ihrer reorganisation im jahre 1835. (B) Front page of the book Lehrbuch der Anatomie des Menschen, edition 1877.

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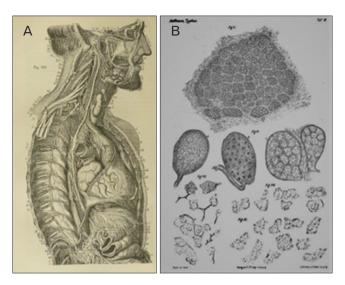


Fig. 2. (A) Fig. 418 from within Quain's Anatomy "Elements of descriptive and practical anatomy for the use of students" in 1828 demonstrating one of the many comprehensive illustrations. (B) Plate 3, Fig. 5 from Hoffman's Untersuchungen über die pathologischanatomischen Veränderungen der Organe beim Abdominaltyphus: mit 9 Tafeln in 1869.

plished a thorough research on the vagus nerve of the fish in order to comprehend human physiology [5]. It was then surgery's turn and Hoffman with his work "Die Lage der Eingeweide des Menschen: nebst Anleitung zu ihrer Untersuchung und Herausnahme aus dem Körper" in 1863 had demonstrated ways of viscera removals from body cavities and mainly the abdomen [6]. His studies in internal organs continued some years later with his 1869 survey in Investigating on the pathological-anatomical changes of the organs in abdominal typhus in his research "Untersuchungen über die pathologisch-anatomischen Veränderungen der Organe beim Abdominal typhus", in which nine novel plates were included [7]. Hoffman had decided to promote anatomy in Germany by editing English Quain's anatomy under the title "J. Quain's Lehrbuch der Anatomie: in 2 Bänden" in two volumes in 1869 and 1872 adding vascular, nerve and sense organs teaching [8, 9]. In 1873 he had once more made suggestions on the removal of the abdominal organs with his work "Die Körperhöhlen des Menschen und ihr Inhalt: nebst Anleitung zu ihrer Eröffnung und Untersuchung" [10].

Hoffman work was celebrated for its tireless vigorous and innovative character. His writings became the epicenter of Human Anatomy, Physiology and Anatomical Pathology. It was considered as a pioneering effort among the most significant writings of his era, improving science and medical knowledge in a higher level [1]. Wood engravings from within majestic Quain's anatomy enhanced students' topographical anatomy comprehension (Fig. 2A) [8, 9]. His 1869 plates introduced pathological anatomy in Germany (Fig. 2B) [7]. His masterpiece "Lehrbuch der Anatomie des Menschen" (Textbook of human anatomy) of 1870 was glorified with various editions (Fig. 1B) [11].

Hoffmann died suddenly on December 15, 1877 while performing an autopsy. He was respected by both his colleagues and his students who all were astonished by his lectures. His Professorship at the Anatomy Institute in Basel marked its most successful era, receiving unprecedented reputation. If it had not been his unexpected death, Anatomy and Anatomical Pathology would have been further evolved Both in Basel and globally [12-14].

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# **Author Contributions**

Conceptualization: VK. Data acquisition: VK, EG. Data analysis or interpretation: VK, EG. Evaggelos Mavrommatis. Drafting of the manuscript: VK, EG, PG. Critical revision of the manuscript: EM. Approval of the final version of the manuscript: all authors.

## **Conflicts of Interest**

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