

Pages in the History of Romanian Medicine

Medical Higher Education in Bucharest and Its Interactions with International Medical Achievements, 1874-1945

Sinziana Ionescu, Octavia-Luciana Madge, and Maria Besciu



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The painting by Jean-Georges on the book's cover is entitled
“Madeleine Brès thesis” or “The Doctoral Jury.”

Madeleine Alexandrine Brès (26 November 1842 in Bouillarges, France–30 November 1921 in Montrouge, France), formerly known as Gebelin, achieved the distinction of being the first French woman to get a medical degree in 1875. Her accomplishment was marked by the submission of a thesis centred on the topic of nursing.



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Prologue

This book represents an important step in increasing our knowledge and understanding of the configuration and development of Romanian medicine in the second half of the nineteenth century and its changes and progress through the first half of the twentieth, until the end of World War II.

The authors, Sinziana Ionescu, Octavia-Luciana Madge, and Maria Besciu, are good representatives of their respective fields of knowledge. Ionescu is a surgeon who specialises in general surgery and surgical oncology, with parallel expertise and research experience in the history of medicine. Madge is a renowned specialist in information and communication sciences and also a medical doctor specialising in general surgery and general practice. Finally, Besciu is an experienced librarian at the Carol Davila University of Medicine and Pharmacy in Bucharest and holds a PhD in the history of medicine. It is evident from the results that their joint efforts have provided the text with a really valuable interdisciplinary perspective.

Romanian medicine had its own particular development through the times, coming, as all the medical systems in the world, from the magical and empirical medicine of the original tribes established in the diverse parts of their territory, with the differences in its concepts and peculiarities brought by successive migrations. Groups coming from a variety of places in Central Asia, the Caucasus regions, and the north-eastern plains contributed initially, and afterwards, Romanian medicine was represented by the classic medicine brought there by the Romans and the establishment of legionary colonies developed later in villages and cities, most of them existing until today. There were established hospitals from early times, mainly *valetudinaria*, which provided healthcare for soldiers and their families, but that did not include teaching or the preparation of physicians or surgeons. Later, the Christian influence contributed to the charity care of patients and the Turkish presence (the enemy that needed to be kept on the other side of the frontier and away from political power) imparted a strong cultural influence, in this case on the value of medical knowledge and attention. This insight seems important because it left institutions specifically dedicated to healthcare that persisted for centuries despite political changes. The incorporation of cultural elements led to the consolidation of Romanian medicine with a deep concern for communi-

cation and participation in European medical schools. This last theme is precisely the main scope of this book.

The authors have adopted a very interesting perspective as their axis to understand and situate the intellectual development of Romanian medical thought. The necessary historical facts they considered were the formation of physicians in the universities of the European world and the origins of this formation in its Romanian counterparts. Curiously, these last events came only in the nineteenth century and are clearly related to the influence of the clinical innovations that characterised French and Viennese medicine.

The first chapter clearly relates online information about the “oldest universities *online* with medical degrees.” The selection comes without doubt from an exploration of the actual presence of medieval universities in online environments. Why speak about the origins of a physician’s education in universities that are still functioning? Many of them were not related to the origins and development of Romanian medical higher education, but it is evident that all of them jointly constituted a reference mark of having a good idea of the scope of physicians’ higher education in Europe from the thirteenth to the mid-sixteenth centuries. It is interesting to pay attention to some facts: Salerno, the first formal medical school in medieval Europe, is briefly mentioned, highlighting the fact that it reunited Greek, Latin, Arabic, and Hebrew traditions. Maybe it is due to the suspension of this tradition and successive changes in the nineteenth and twentieth centuries and the absence of online information about its current activities. The main historical source for the Salerno Medical School continues to be Salvatore de Renzi, *Storia documentata della Scuola Medica di Salerno*, published in 1857, with a view directed to unify tradition and modernisation, an effort which is parallel with the foundation of medical higher education institutions in Romania.

The selected universities are mainly Italian ones, some in England, Montpellier in France, and, logically, those in the cities and countries nearest to Romania: Prague, in the Czech Republic, Vienna University, and Jagellonian University in Krakow, Poland; Leipzig University, more distant, is also included surely due to history of attracting foreign students since its foundation in 1409. It is important to note the inclusion in this list of the Coimbra Faculty of Medicine in Portugal, whose influence was

due to the fact that it accepted students suspected of heterodoxy at other universities.

The authors briefly say that they did not include American universities due to the late start of medical studies in them, making reference to that of the University of Pennsylvania School of Medicine, which opened in 1765 and was described as being the “oldest of its kind.” I would like to underline that the Faculty of Medicine at the then Royal and Pontifical University of Mexico was founded in 1578, but we also have to take into consideration that it did not have any influence towards the formation of foreigners, excepting those who went there, establishing themselves in New Spain (the territory later to be called Mexico).

The second chapter offers us a synthetic view of the origins of higher medical education in Romania. It invites us to virtually travel to Romania, specifically Bucharest, in the first half of the nineteenth century. From the start, its dominant figure was Carol Davila, an important figure who gave his name to the Carol Davila University of Medicine and Pharmacy in Bucharest, which at that time also included veterinary studies. This chapter starts in 1832, when medical studies in Muntenia were reorganised, leaving the reader to perhaps have doubts about the previous existence of medical schools in the region. The subject did not fall under the scope of this book, but it opened the possibility of future research about it. The information provided in the chapter offers to the reader and possible future researchers a detailed narrative of the development of medical studies in Muntenia up to the General Medical-Military Institute of the Carol Davila Division, which was the germ of what later became the Carol Davila University of Medicine and Pharmacy.

The figure of Carol Davila appears on many occasions in the pages of the text, always playing a preponderant role. He is undoubtedly, as presented by the authors, the key figure in the evolution of Romanian medicine towards a place in the international scene. A founder and promoter of institutions, not only of “higher” medical education but also of the care and education of orphans and abandoned children, Carol Davila receives very well-founded praise.

I now jump ahead to Chapter 4. I consider the inclusion of short biographic items of some of the relevant figures in the development and internationalisation of Romanian medicine to be a very important part of understanding this significant period. This is the focus of the fourth chapter. In the first part of the chapter, these significant figures are presented

on the basis of their theses and the inherent contributions contained there. Most of the theses were presented in the last years of the nineteenth century and there is an emphasis on the fact that some of the future professors and doctors at the University of Bucharest graduated outside Romania, mainly in Paris. This is the case of George Assaky, who graduated from Montpellier and Paris; Constantin Angelescu, who obtained his PhD in Paris and was a part of many European academic circles; other graduates from Parisian universities were Gheorghe Banu, Ion Cantacuzino, Carol Davila, Mina Minovici, and Nicolae Constantin Paulescu, the latter being a very distinguished and important researcher on pancreatic substances producing hypoglycemia with works that predated the isolation of insulin by Banting and Best, among many others. However, as is easy to understand, not only did they bring the most recent achievements of French medicine to Bucharest, but they also made notable contributions to medical sciences in the international context. Besides Paulescu's well-known research on pancreatic hormonal substances, before and after the isolation of insulin, there were also Cantacuzino's contributions to the cholera vaccination and the utilisation of high spinal anaesthesia proposed and put into practice by Thoma Ionescu and his disciple, Amza Jianu, and George Emil Palade's work on ribosomes and intracellular membranes, which brought him a Nobel Prize. These are all good examples of the actuality and interaction of Romanian physicians and researchers at the international level.

Going back to the third chapter, which is undoubtedly the central one of the book, the authors offer an introduction (by way of a synthetic enumeration) of the Bucharest hospitals, mainly dating from the eighteenth century, and also a brief description of their characteristics and innovations, as in the example of the pediatric hospital founded in 1836. After that comes the outlining of the objectives and methodology of the study, making it clear that the previous pages – that is, the relation of universities with medical high education present online and the revision of the creation and development of medical higher education institutions in Bucharest – are just an introduction to this main theme. The focus here is the description of thirty-two PhD theses defended at these Bucharest institutions during the period selected and specified by the authors, that is, from the first graduates to 1945, when, after World War II, international relationships changed substantially. There are not so many theses in number, but it is convenient that they were chosen to represent an entire

category (of PhD theses from several decades), and therefore, they show samples of the work of the medical graduates in the Carol Davila University of Medicine and Pharmacy over time. It would be interesting to have the number of medical students who started their studies each year at this university, but it is evident that this falls into other fields of research.

The professors presented in Chapter 5 are listed in alphabetical order, which is clear but does not present their research themes and concepts as developing over time; in this section, the theses are presented in an apparent chronological order, apparently only because sometimes a thesis appeared some years after the expected sequential order. Maybe it is due to the fact that some of them were joined in the same volume and not always in chronological order, which is a good possibility. Anyway, it is not an important or decisive issue because the thesis presented in years appearing out of sequence are dated only a few years after or before the next one, not leaving temporal spaces, which could be significant in changes to medical knowledge.

The most important section of the book is the one that presents analytical dispositions and commentaries on the theses according to the dates of their presentation, divided into short periods. This section is rich in perspectives for future research as it identifies the precise moments in which the production and presentation of new knowledge or a critical approach to controversial themes appears. Also, after a synoptic table containing all of the thirty-two theses, with their authors, themes, number of pages, and a numerical account of international references in their bibliographies, comes another table with the theses organised according to their fields of knowledge and the specialities to which their themes pertain: anatomy, physiology, pathology, histology, and laboratory work in a basic sciences group; a second one including internal medicine, infectious diseases, public health, and epidemiology; a third table with general surgery and surgical specialties; and a fourth one on themes which include more than one speciality. It is relevant to note that the topics identified in this last group were chorea in rheumatic fever in the first decade of the study and leprosy in the following one, calling attention to the fact that these two problems seriously affected the population at the time and were subject to many international studies and actions.

The organisation of the information presented in this book by decades enables the reader to understand the precise way in which Romanian medical innovations or critical contributions were made over time. An-

other attractive feature of this book is the mentioning of relevant Romanian and international contributions to the subject of each thesis through diagrams with summaries of historical developments.

The fourth chapter is a very well-done interlude covering the period between the thesis defended to obtain a PhD and its immediate significance and impact on the development and modernisation of Romanian medicine and its debt and contributions to international knowledge. The means to achieve this end is through a series of short biographies of the authors followed by a table containing the names and dates of their lifetime, the thesis title, the author's principal academic and scientific achievements, and their research fields.

The last pages of the book consist of a section containing an overview of the theses presented with the intention to detach and emphasise the research interests of the theses' authors and their tutors. This is, undoubtedly, the culmination of the book, being a synthetic presentation of the theses, as was done in the other chapters but now with special attention not only to the medical themes treated in the theses and also their relationships with the research themes of the theses supervisors and the place they occupied in the configuration and international projection of Romanian medicine. The second table in the chapter presents the precise research interests of the thesis supervisors, offering us a concise description of them and the orientation to localise references to published papers and, in the final pages, a series of fifteen diagrams centred on the figure of the thesis supervisor, showing the precise relationship between them and the national and international medical figures cited in the texts or related to the supervisors' scientific work. These fifteen figures were selected to be the most prominent exponents of Romanian medicine in the new international scientific medical panorama. In this case we have before us an image of each of them, starting out on the road of their studies and, for some of them, of their thematic fields. The names of I. Felix, N. Kalinderu, M. Manicatide, I. Nanu Muscel, A. Obregia, Z. Petrescu, P. Petrini, M. Petrini-Galati, F.I. Rainer, G. Romniceanu, C.D. Severeanu, N. Turnescu, as well as the better known I. Cantacuzino and T. Ionescu are waiting for biographical studies and also for deeper analysis of their contributions.

As the authors sustain, the list of PhD theses by medical postgraduate students at Carol Davila University of Medicine and Pharmacy in Bucharest gives us a precise panorama of the predominant themes of academic

interest in the period studied in this book and also the health problems attracting attention and the solutions proposed or attained. That is, it provides the main lines of the evolution of Romanian medicine, the influences that it affected it, and its contributions to medical knowledge at a national and worldwide level.

Presenting this book is, for me, a very pleasant and gratifying task. I want to express my most sincere congratulations to the three authors for their joint methodical research that gave this work a real interdisciplinary dimension. I particularly liked the integration of the results of the exploration of digital databases and the thorough archival identification of the theses and other related documents. The construction of this body of knowledge was aimed at offering, when considered altogether, a very rich collection of material. This book is not only a real success in itself but also opens up a wide range of perspectives for future studies and important research. In fact, it provides us with a detailed image of Romanian medicine in the past as well as a very detailed description of the first medical educational institutions in the country, especially Bucharest's faculties and universities. Finally, and at the core of the work, the research pulls together the individuals and documents that permit us to build a precise idea of the national and international academic exchanges in the health-related sciences of the time. This portrait of the significance of Romanian medicine is important not only for the nation (in terms of the nation-building activities that took place in the years covered by this work), but also for its transcendence on a worldwide stage.

Once more, I would like to express my sincere congratulations to the authors and encourage them to continue their substantial and fruitful research.

Prof. Carlos A. Viesca y T.

President of the International Society for the History of Medicine (ISHM)

17 June 2024

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Introduction

Doctoral research programmes are widely regarded as crucial for the advancement of higher education on a worldwide scale. Universities play a central role in cultivating skilled researchers at various points in their professional journey.

This book was conceptualised as an analysis of the bilateral interaction between Romanian and International research in the medical field. In the authors' opinion, the originality of the book centres on this analysis being done mainly through the lens of PhD theses and their scientific content.

Our original research had the subject of PhD theses (chosen from the database of theses defended between 1873 and 1945 at the Carol Davila University of Medicine and Pharmacy in Bucharest) as a starting point. From there, other PhD theses worldwide within the same time frame were searched for and noted when any material was found on the same subject. If no theses were found, articles on the same subject were mentioned. For an accurate portrayal of each subject debated in the thesis analysed, a poster of important historical discoveries was created. Journals published at the same time as the thesis analysed were searched for relevant information to see if the medical subject discussed in the thesis was important on a national level.

Chapter 1 illustrates some of the oldest universities offering (doctoral) medical degrees.

Chapter 2 describes the initial historical moments in the evolution of the Carol Davila University of Medicine and Pharmacy in Bucharest, Romania.

Chapter 3 explores the analysis of thirty-two theses from the Carol Davila University of Medicine and Pharmacy database and the comparison between the research done on Romanian territory versus the research done internationally, with an emphasis on the "hot topics" that were found in the medical literature at the time.

Chapter 4 briefly enumerates the titles and subject matter of the PhD theses defended by key figures in the Romanian academic medical world.

Chapter 5 looks at the scientific interaction between the theses found in Chapter 3 and their coordinators (most of them are the key figures discussed in Chapter 4).

Finally, the book's conclusion summarises the main findings of our research. We have studied various aspects of national (Romanian) versus international scientific medical interactions, so we consider it important to mention a few key historical moments related to the country's past.

Romania now comprises four prominent historical provinces: Transylvania, Wallachia, Moldavia, and Dobruja. Transylvania is situated in the west-central region of the country and is surrounded by the Carpathian Mountains to the south and east. The Carpathian Mountains and the Eastern Dniester River constitute the region of Moldavia, which the Republic of Moldova and Romania jointly occupy. Wallachia is geographically positioned south of the Danube River and amidst the northern Carpathian Mountains. Dobruja is a region that is geographically enclosed by the Danube River to the west and north and the Black Sea to the east.

In 1600, Wallachia, Moldavia, and Transylvania (as shown in Figure 1) were temporarily unified under the rule of Michael the Brave (Mihai Viteazul), who was the Prince of Wallachia. The period of unity came to an end after a single year when Michael the Brave was vanquished by the combined troops of the Turks and Habsburgs. Transylvania was brought under the control of the Habsburg Empire, while Wallachia and Moldavia remained under the authority of the Ottoman Empire. The formation of the contemporary Romanian nation-state began in 1859 via the fusion of the principalities of Wallachia and Moldavia (as shown in Figure 2). On December 1, 1918, the Great National Assembly of Alba Iulia took place, attended by 1,228 elected representatives of the Romanians living in Transylvania, Banat, Crişana, and Maramureş (other geographical regions and provinces of the current state of Romania). During the assembly, a unanimous vote was cast to decree the unification of these territories with Romania (as shown in Figure 3).



Figure 1. Map depicting the three principalities under Michael the Brave's jurisdiction from May to September 1600.

Source: Wikimedia Commons.



Figure 2. Map of Romania between 1859 and 1878.
Source: Wikimedia Commons.

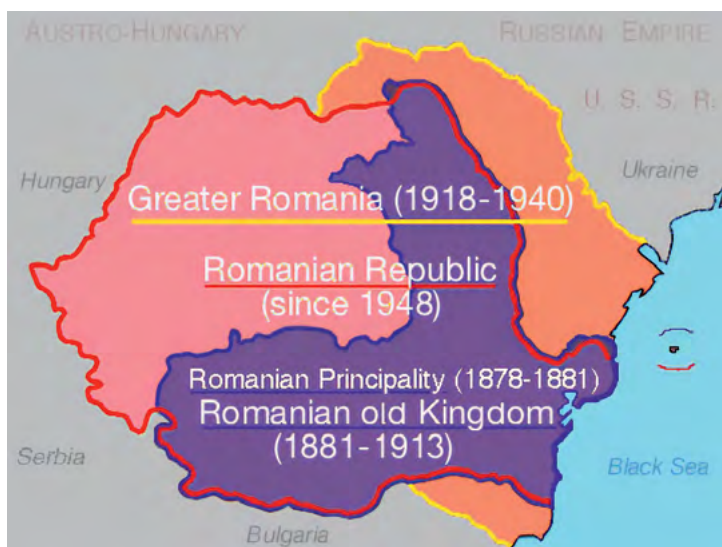


Figure 3. Map of Romania and its territorial changes in the twentieth century.

Chapter 1

The Oldest Universities Online with Medical Degrees (License and PhD)

The following are the thirty oldest medical schools in the world. The following conditions are applicable here when compiling this list:

- The list covers only institutions that are presently operational and provide certified medical qualifications; “schools no longer in operation are omitted. In the event of mergers between educational institutions, the date of the institution with the longest history of medical education is utilised.”
- Medical facilities closed for over thirty years are not included. In several instances (such as during military confrontations), older colleges were closed for extended periods of time.
- Medical schools whose date of origin could not be found were also omitted.
- Regarding the first criterion, for instance, the original Western school of medicine “was the Schola Medica Salernitana in Salerno, Italy,” which saw particular prominence during the eleventh and thirteenth centuries. The institution is notable for its ability to bring together “the Greek–Latin medical heritage with the modern Arabic and Jewish medical traditions.” The school’s renown is mostly attributed to its female students and the literary contributions of its staff.
- The majority of the universities on this list were established during the Middle Ages (500 AD–1500 AD). Other current medieval colleges with medical programs are not included here; no definitive establishment dates for their medical schools are known.
- There are no American medical schools on this list. “The School of Medicine of the University of Pennsylvania, established in 1765,” is the oldest institution of its kind. All other medical schools in the United States were established after this date.

1. The **SCHOOL OF MEDICINE AND SURGERY** of the **UNIVERSITY OF BOLOGNA**. The university was founded in 1088 in Bologna, Italy, and the medical faculty was created in 1200.

While Holy Roman Emperor Frederick I Barbarossa granted the charter for this institution in 1158, historians have identified its beginnings in 1088, which is currently displayed on the university's flag. This would become the Institution of Bologna, the world's oldest continually running university. It was also the first institution to adopt the word "*universitas*," the origin of the term "university" to mean a collective of students and faculty.

The School of Medicine was established about 1200 AD. The faculty is one of many in Europe that have been performing human dissections (see Figure 4) since at least the thirteenth century.



Figure 4. The Anatomical Theatre of the Archiginnasio at the University of Bologna, Italy, 2016. It was constructed for anatomy lectures in the sixteenth century.

Source: Megapixel.com.

2. **BARTS AND THE LONDON SCHOOL OF MEDICINE AND DENTISTRY**, a medical and dental school, is part of **QUEEN MARY UNIVERSITY OF LONDON**. The medical faculty was established in 1123 in London and the university was established in 1989.

In 1989, "Westfield College (1882) and Queen Mary College merged to establish Queen Mary University of London (QML) (1885)." The establishment of the medical faculty was accomplished in 1995 through the

melding of St. Bartholomew's Hospital (see Figure 5), formed in 1123, and the Medical College, with its origin in 1785.⁵

The institution has two Nobel laureates among its esteemed alumni along with notable doctors.

Barts is part of the United Hospitals, which refers to all London schools of medicine, most being affiliated to the University of London.



Figure 5. St. Bartholomew's Hospital, often referred to as Barts, was established in 1123 and has the distinction of being the oldest operational hospital in England.

Source: Megapixl.com.

3. The **FACULTY OF MEDICINE of MONTPELLIER 1 UNIVERSITY**, founded in 1289, is located in Montpellier, France. The medical faculty itself was established much earlier, in 1181.

The University of Montpellier was established in October 1289,⁷ but the medical instruction here dates only to 1137. In 1970, the primary university ended operations and was divided into Montpellier 1 (containing the college of medicine), Montpellier 2, and Paul Valery Montpellier 3.⁵

The school of medicine was one of the first of its kind worldwide (see Figure 6), with licensed doctors given permission to lecture without restriction in Montpellier under the Guilhelm VIII Act of January 1181, which drew professors and students from beyond Montpellier.



Figure 6. Montpellier's University of Medicine and Cathedral St. Pierre.
Source: Megapixl.com.

4. The **DIVISION OF MEDICAL SCIENCES** affiliated with **OXFORD UNIVERSITY**. The medical faculty was established between 1220 and 1255, while the university was founded in 1096. The location of the institute is Oxford, United Kingdom.

Oxford⁸ (see Figure 7) is the world's longest-lasting English-speaking university and the second-oldest university overall still in existence. Evidence implies that education here began about 1096, although the precise date is unknown.⁵

Medicine was taught at Oxford between 1220 and 1255. Later, in the late nineteenth century, more contemporary medical degrees emerged.

More than fifty Nobel Prize laureates in the six categories have been affiliated with the institute or have graduated from Oxford.



Figure 7. Oxford panorama of the Radcliffe Camera and All Souls College, 1438.
Source: Megapixl.com.

5. The **SCHOOL OF HUMAN HEALTH SCIENCES** at the **UNIVERSITY OF FLORENCE**, which was formed in 1923. The medical faculty of the university has been in existence since 1321 and is located in Florence, Italy.

The Florentine Republic established a *studium generale* in 1321.⁹ A *studium* or *studium generale* was a medieval university. This one offered regular degrees starting in 1349 with its recognition by Pope Clement VI. It was elevated to the status of an imperial university fifteen years later, and during its inception, it frequently relocated between Pisa and Florence. Although the university did not obtain official legal recognition for its founding year until 1923, as stipulated by a parliamentary act, its current legal existence dates back to 1859.⁵

“Medicine was one of the initial faculties of the *studium*. The School of Human Health Sciences currently comprises three medical departments: Experimental and Clinical Biomedical Sciences, Translational Medicine and Surgery, and Experimental and Clinical Medicine” (see Figure 8).



Figure 8. The SS Annunziata Square in Florence, Italy, filled with young college graduates wearing laurel wreaths on their temples as they celebrate their graduation in 2022.

Source: Megapixel.com.

6. The **DEPARTMENT OF MEDICINE** at the **UNIVERSITY OF PADUA**, which as formally established in 1399 in Padua, Italy.

The Università di Padova (see Figure 9), a famous Italian institution, has one of the oldest schools of medicine, with historical records indicating a