

NOTE E BIBLIOGRAFIA

¹ STROPPIANA L. - *Un trattato sui polsi attribuito a Galeno* in "Annali di Medicina Navale" (Pagine di Storia della Scienza e della Tecnica), 16 (1962).

² DAREMBERG Ch. e RUELLE Ch. E. - *Oeuvres de Rufus d'Éphèse* - Paris, Imprimerie Nationale, 1879.

³ DAREMBERG Ch. - *Histoire des Sciences Médicales*, Imprimerie Nationale, Paris (1879), vol. 2.1, p. 190

⁴ LITTRÉ E., *Oeuvres complètes d'Hippocrate*, S.B. Baillière, Paris, 1839, vol. 1, p. 104.

⁵ GALENO - *De simpl. medicam. facultat.* XI.VI, p. 789-892.

⁶ STROPPIANA L. e D'ANIELLO E. - *Lo studio del polso nella sua evoluzione storica*, in: Salerno 2, 1968, p. 7.

⁷ È evidente il riferimento all'anatomia alessandrina.

⁸ Libro XVI, trad. Kühn. *De dispositionibus cordis*.

⁹ *De differ. pulsum*, I, 2, t. VIII, p. 498, trad. Kühn, Olms Verlagsbuchandlung Hildesheim, 1964.

¹⁰ GALENO - *De differ. pulsuum* I, 2, t. VIII, p. 498, trad. Kühn. op. cit.

¹¹ GALENO - *Quod anim. mores*, cit. da Daremberg - Ruelle.

¹² GALENO - *De differ. pulsuum* IV, 3, p. 723 trad. Kühn. op. cit.

¹³ GALENO - *De trem. palp. et spasm.*, V, t. VII, p. 598, trad. Kühn.

¹⁴ GALENO - *De differ. pulsuum* IV, 3, t. VIII, p. 723 e 726, trad. Kühn.

¹⁵ PLINIUS - *Hist. Natur.* XIX, V, 1, Hieronymum Scotum. Venetiis, 1571.

¹⁶ GALENO - *De puls. ad Antonium disciplinae studiosum ac philosophum*, t. XIX, p. 634, trad. Kühn, op. cit.

¹⁷ CELSO, *De Medicina* (trad. A. Del Lungo) Sansoni, Firenze, 1985, III, 6

¹⁸ STROPPIANA L. - *Le conoscenze ippocratiche sui polsi*. In: Tribuna Sanitaria, suppl. al n. 4, (1962). Vedi anche: Tridente M. *Alcuni aspetti della dottrina del polso nella evoluzione storica*, Vallardi, Milano, 1939.

Da notare che in tutti gli scritti del *Corpus* il termine *σφύγμος* non significa altro che un battito dei vasi che è raro trovare accompagnato da un aggettivo diverso da *ισχυρός* (forte, vigoroso). Ippocrate precisa sempre il posto dove ha notato questo battito, come per esempio *σφύγμος ἐν τοῖς ὑποχονδρίοις, ἐν τοῖς χρωμάτοις...* Giustamente perciò Galeno dice di Ippocrate che fu il primo nel mondo greco-romano ad usare il termine *σφύγμος* per indicare il battito delle vene, ma che Ippocrate non fu affatto l'inventore della "dottrina del polso".

¹⁹ GALENO *Meth. medendi* XI, 15, t. X, p. 755, trad. Kühn. op. cit.

²⁰ CELSO AURELIANO *Delle mal. ac.* II, 6 e 12; *Delle mal. cron.*, IV, 8.

²¹ ARETEO DI CAPPADOCIA *Chronic. curat.*, L, 4, p. 310, trad. Kühn. op. cit.

²² PLINIUS *Natur. Hist.*, XXVI, 9.

²³ PAZZINI A., *Storia della medicina*, Soc. Editrice Libreria, Milano 1947, I, p. 179.

²⁴ RUFO D'EFESO, *Del nome delle parti del corpo*, ed. Daremberg-Ruelle 1879, p. 155.

²⁵ Da Pirrico (in greco: Πυρρικός), mitico inventore della danza pirrica eseguita al suono del flauto da uomini in armi che simulavano le varie fasi di un combattimento. In musica era un piede composto da due sillabe brevi. Era detto anche dibraco.

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Articoli/Articles

THE LINKS BETWEEN THE MEDICAL SCHOOL
OF BOLOGNA AND THE
HELLENIC MEDICAL WORLD

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SUMMARY
THE LINKS BETWEEN THE MEDICAL SCHOOL
OF BOLOGNA AND THE
HELLENIC MEDICAL WORLD

A significant number of outstanding Greek physicians had had their studies or post graduation courses at the University of Bologna during the period of the 17th — 19th century. As a brief outline, six (6) eminent figures should be mentioned:

1. Alexander Mavrocordatos (1641-1709), the outstanding politician and diplomat of his time;
2. John Baptist Charvouris (1722-1804), Professor of the Universities of Turin and Padova;
3. Marcos Charvouris (1731-1808), Professor of Chemistry at the University of Padova;
4. Angelos Tsoulatis (1732-1798), one of the first scientists to apply the inoculation of smallpox in Greece;
5. John Vilaras (1771-1823), well-known author and poet;
6. Dionisios Pyrros (1777-1853), philosopher and physician, who was the first President of the Medical Society of Athens (1835).

Among the great number of significant scientific papers written by the above mentioned authors the most outstanding is "Pneumaticum instrumentum Circulandi Sanguinis sive de Motu et Usu Pulmonum" (1664) by A. Mavrocordatos, which is believed to be the most important study on the blood circulation after that by W. Harvey's entitled Exercitatio Anatomica de Motu Cordis et Sanguinis in Animalibus (1628). It should be concluded, that through educating Greeks at its Medical School, many of whom excelled in Greece and abroad, the University of Bologna influenced positively the Hellenic medical world.

Parole chiave/Key words: Bologna University — Medical School — Hellenic Medicine

It is very difficult in a relatively short study to provide informations concerning all the names of famous Greek physicians who studied medicine at Italian Universities during the period of the 17th-19th century. There were numerous, because the Greeks at that time preferred especially the Italian Universities of Padova, Pavia, Florence, Pisa and Bologna for their studies and post-graduation courses. The Greek students at these Universities were mostly from the Joanian Islands. A brief



Fig. 1 — The portrait of Alexandros Maurocordatos.

outline of their biographies convinces us that about ninety five percent (95%) of them studied medicine and that most of them studied at the Universities of Padova and Bologna¹. When graduated from Bologna University, Greek physicians moved for their practice into Greek soil, giving the light of that glorious Italian University to the whole Ottoman and Venetian-suppressed Greek world.

The present study refers to six (6) of the most important Greek scientists who studied or practised at the Bologna University.



Fig. 2 — A. Maurocordatos and his daughter Sultan (fresco from the Bucarest monastery).

1. ALEXANDER MAVROCORDATOS

Alexander Mavrocordatos (Fig. 1-3) the Secretary of State (1641-1709) excelled mostly as an outstanding diplomat and politician who for more than 30 years had been the first Interpreter of the Ottoman Court and from this position directed the Foreign Affairs of the High Court. During all this period and notwithstanding the difficulties, he also carried out the secret negotiations with all European Countries of the time. He studied first at the College Greco in Rome and then at the Medical School

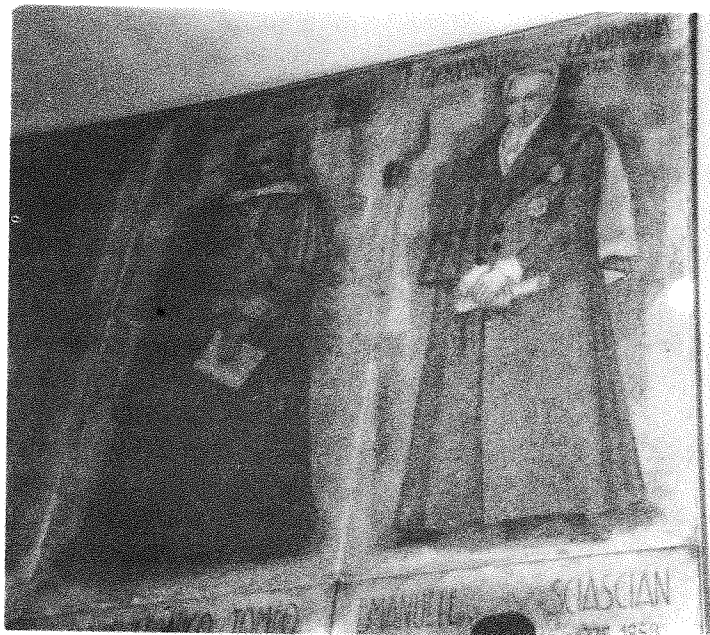


Fig. 3 — A. Maurocordatos and Giovanni Capodistria (A fresco from Palazzo del Bo of Padova, Sala dei Quaranta).

in Padova and Bologna where he was awarded the Diploma of Medicine and Philosophy, on the 16th of May 1664. However, the ties of Mavrocordatos with Bologna were much stronger because in 1664 he published his thesis "Pneumaticum Instrumentum Circulandi Sanguinis sive de Motu et Usu Pulmonum" (Fig. 4) which he submitted to the University and

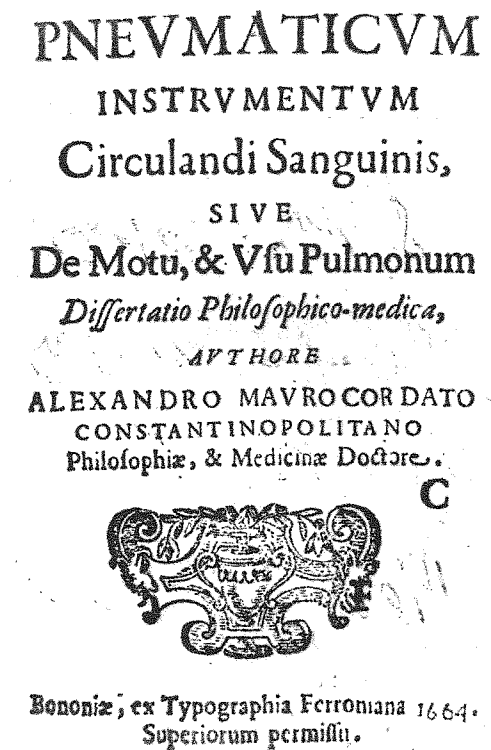


Fig. 4 — The front page of Maurocordatos' Thesis.

dedicated to his protector the Grand Duke of Toskani Ferdinand the Second.

In his doctoral thesis on blood circulation Mavrocordatos made no new discovery, as most of his biographers insist, but confirmed and formulated the respective research of the outstanding English Physiologist, William Harvey (1578-1657) with the title "Exercitatio anatomica de motu cordis et sanguinis in animalibus" (1628).

The medicophilosophical study of Mavrocordatos on blood circulation and the movement and functioning of the lungs consists of 17 chapters. In the beginning the author analyzes the main conceptions of the ancients, and further he offers his own postulates, some of them experimentally tested. These postulates reflect the points of view of contemporary authors and they are mostly connected with the new theories on circulation formulated by Cesalpino, Harvey, Colombo and Cerveto, the theories that founded immediate and enthusiastic response in medical circles. What strikes as odd is that Mavrocordatos did not make use of the recent discoveries made by Marcello Malpighi concerning the structure of air-cells and capillaries. According to Lorenzo Guerrieri the paper of Mavrocordatos shows the struggle of a physician who fails to explain the physiology of the lungs and heart on the base of the knowledge of his time. As both Guerrieri and Vincenzo Busacchi remark, this work is not something especially original; it is, however, a work of compilation that follows dialectical and partly experimental schemes, an ingenious and profound work that cannot be ignored. In other words, it constitutes a valuable contribution to the medical literature of his time, and that is why it was so warmly accepted by the public, with many editions that followed. It is work that shows the quest of the Truth, exactly like the author himself describes it: "I am so passionately willing to lean it but failed to find a teacher to teach it to me" (*Hanc ego scire percupio, et multum tamen magistrum reperio*)^{2,9}.

2. JOHN BAPTIST CHARVOURIS

John Baptist Charvouris (1722-1801 or 1804) who was born in Cephalonia, also had studied Medicine at the University of Bologna. Afterwards he lived in Italy, made a bright career and in 1750 became Professor at the University of Turin. He was a pupil of the great Giovanni-Battista Morgagni and a follower of the ideas of Skepticism.



Fig. 5 — The Charvouris's heraldic ex-libris.

After a short stay in Cephalonia he settled in Bologna (1740). At the Turin University he lectured until 1770, and afterwards, for health reasons moved to Paris where he became the private doctor for the daughter of Charles Emmanuel, the King of Sardinia. In 1795 or 1797 he returned from Paris to Italy and was employed as Professor of the Chair of Physiology at the University of Padova. The famous scientist died in Padova^{10, 11}. (Fig. 5).

3. MARKOS CHARVOURIS

Markos Charvouris (1731-1808) brother of J.B. Charvouris was born in Cephalonia. He received secondary education in Venice, and in Bologna, he attained the University Diploma of Medicine and Chemistry. According to his biographers, he inclined to Physico-Mathematical sciences, and was one of the most favourite students of Bartolomeo Bechery, Professor of Chemistry at the Bologna University.

In 1760 Charvouris became the Professor of Chemistry at the University of Padova. He achieved so great a name that a well-known naturalist, Charles Linneus asked him to revise his Metal Classification System. He made a lot of corrections in that system, and also suggested a foundation of the famous Chemical Laboratory of Padova, the prototype of similar institutions in Parma and Turin.

He is known as one of the most outstanding figures in Chemistry of that time. He was Professor at the University until August of 1798, when he was dismissed by the Imperial Government of Padova, or, according to some other biographers, resigned because of his political views, which were opposite to the Austrian occupation in Italy. In 1801 he returned for a short period of time; again was dismissed; but in 1805 again achieved his post in the University.

Professor Charvouris wrote a lot of studies on different scientific subjects, and he was a real pioneer in many branches of Chemistry. For example, he discovered the method of melting

of ironcast ore without mixing it with coal and other ingredients, he invented fireproof paper, and was the first to grow pure crystals of sulfur dioxide^{10, 11}.

4. ANGELOS TSOULATIS

Angelos Tsoulatis (1732-1798) (Fig. 6) came from Cephalonia and studied Medicine at the University of Padova. He then practised with great success in Venice, Livorno and Bologna, where he had lived for a long time, as his biographer said. Afterwards, Tsoulatis returned to Cephalonia where he continued to practise medicine and was occupied mainly with protective inoculation of smallpox. The results of this research were then summarized in the paper "Information of protective inoculation of smallpox hold on Cephalonia" published in 1763 in Venice. We must underline that A. Tsoulatis, together with the other two Greek physicians, Emmanuel Timonis and Jacob Pylarinos, completes the pioneer Greek medical research team in the field of smallpox inoculation in the 18th century.

This scientist was one of the founders of the Academy of Agriculture and Economics, which was founded in 1791 in Argostoli. During the same period he contributed to the construction of Quarantine held in Cephalonia by Venetian Governor (Proveditore) Angelo Maria Giorgio. After the long residence in Cephalonia, he moved to Constantinople where he led a great scientific and social activity improving the functioning of numerous hospitals in the city. How was the private doctor of the Ambassador of Venice in Constantinople, Andrea Dona, as well as a lot of noble Turkish and European families, and the advisor to all Christian hospitals of Stavrodromio¹⁰⁻¹².

5. JOHN VILARAS

John Vilaras (1771-1823) studied Medicine, Philosophy and Botany at different Italian Universities, amongst them being the

University of Bologna. When he returned to Joannina, he became the private physician of Veli, the son of Ali Pasha, whom he accompanied on his war expeditions to Thessaly and Peloponnese. Vilaras is known as a philologist and poet. He published a lot of verses and is considered to be a pioneer of neohellenic



Fig. 6 — The portrait of Angelos Tsoulatis.

spiritual renaissance. He was a devoted supporter of Modern Greek Language (Dimotiki), and was the first who dared to abolish the historically settled orthography, accents and breathings of the Greek Language, which has been done only nowadays. His study "The Romanic Language" published for the first time in 1814 in Corfu, is considered to be a defining act for Modern Greek language and literature¹³.



Fig. 7 — The portrait of Dionisios Pyrros.

6. DIONISIOS PYRROS

Archimandrite Dionisios Pyrros Thettalos (1777-1853) was born in Kastania of Trikala. After the consecration he went to Italy where he served at the Orthodox Church of Livorno. At the same period, he studied Medicine at the University of Pavia, where in 1813 became D.Sc. in Medicine and Surgery. In the period of study 1807-1813 Pyrros visited the Universities and hospitals in many towns of Italy, amongst them being the University of Bologna. He was a founder of the Hellenic Medical Society and its first president (1835).

After completing his studies, Pyrros (Fig. 7) travelled around all of the Balkans and Turkish territories reaching the Holy Land. With the beginning of the National War of Independence Pyrros left for Peloponnese, and there as a doctor and inspirer of the Patriots provided help and advice on a wide range of questions, sanitarian, spiritual and others. He also built a paper-producing factory in Greece, which was of great importance, because the production of paper was immediately related to the printing matter means of enlightenment and organization of the masses for information of the foreigners¹⁴.

In conclusion, the present study provides some typical examples concerning the fruitful influence of Bologna academic community, and especially the positive role played by the Bologna medical school in the Hellenic medical life.

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