

UNIVERSITÀ  
DEGLI STUDI  
DI PADOVA

# History of the University of Padua

*Gaetano Thiene MD FRCP Hon*

*Bressanone 6 Luglio 2015*



## World oldest Universities

University of Bologna    University of Paris    University of Padua

1088

1170

1222

The University of Padua was founded in 1222 when a large number of scholars and professors left the University of Bologna to look for more academic freedom. As the city of Padua was long recognized for its cultural richness and liberal schools, the University was established spontaneously, not “*ex privilegio*”, which was a special decree of the emperor or the Pope needed at that time.

**Padua in 1222 was already an important cultural centre, in particular for Roman and Canon Law studies.**



**“Palazzo della ragione” (Palace of the reason) (1172-1219)**  
Town hall building for the administration of justice; symbol of the medieval legal school and studies of Padua.

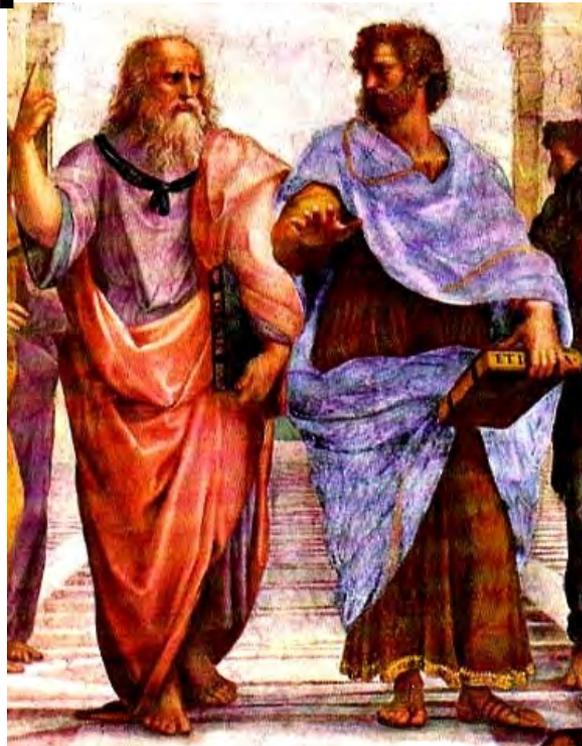
- Venetian Patricians barred from major lectureships
- Ordinary chairs could not be held by native citizens of Padua
- Vacant chairs given to the most capable candidates outside the University instead to be filled by promotion from the ranks of existing faculty

***“Only men of demonstrated excellence in their profession are given charge over the education of the young”***



## PLATONISM

1. Study of the universe, product of a creative intelligence (Demiurge)
2. Study of the archetypes
3. Study of metaphysics rather than



## ARISTOTELISM

1. Study of biological phenomena, looking for the “cause” of natural phenomena
2. Observation and experimentation
3. Data rationally organized



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**“Aristotelian stronghold”**

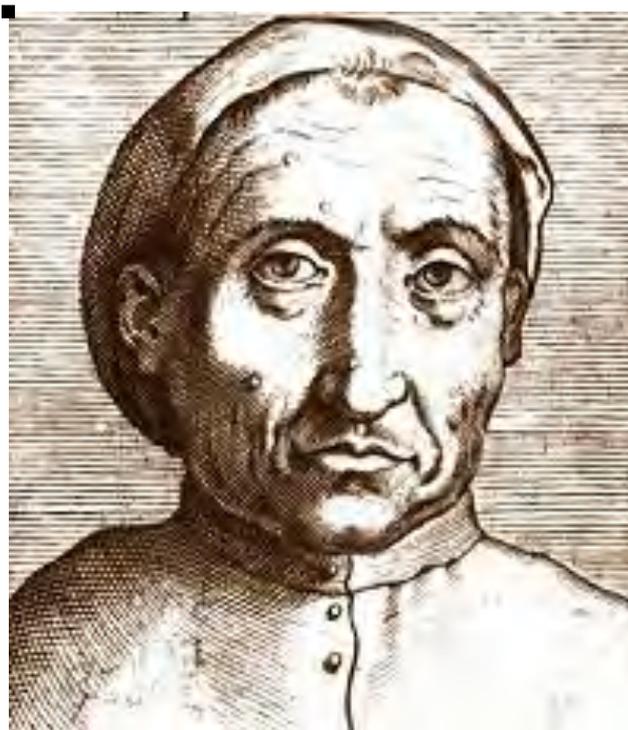




# Natural Philosophy in Padua University



Gaetano Thiene  
(1387-1465)



Pietro  
Pomponazzi  
(1462-1525)



Bernardino Telesio  
(1509-1588)

Thanks to the Aristotelian tradition, the study of philosophy in Padua was focused on physics (“natural philosophy”), rather than metaphysics, since the XIV century



**According to Pomponazzi,  
one of the most important  
Aristotelians of Padua,  
nature has to be observed  
and studied with its own  
principles and laws and  
without recurring to  
external, metaphysical  
forces**

## Padua's Aristotelian Philosophy



## New Medicine based on direct observation



**Pietro d'Abano**  
1250-1315



**Michele Savonarola**  
1384-1466



**Alessandro Benedetti**  
1450-1512



# Bo Palace of the University of Padua



**Coats of arms of students who were Rectors  
and Councils of the students' *Nationes***



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# Bo Palace of the University of Padua

→ Student Rector



→ Students Councils of the *Nationes*



## Theoretic al Medicine

1<sup>st</sup> year: *I Canon* of Avicenna

2<sup>nd</sup> year: *Aphorisms* of Hippocrates commented by Galen and *Prognostic* of Hippocrates

3<sup>rd</sup> year: *Articella* by Galen and *IV fen* of *I Canon* of Avicenna

## Practical Medicine

1<sup>st</sup> year: *De febribus a capite usque ad cordem*

2<sup>nd</sup> year: *De febribus a corde infra*

3<sup>rd</sup> year: IX book of *ad Almansorem* of Rhazes

## Surgery

The professor of Surgery was also due to teach Anatomy, but this obligation became official only in the late XVI century



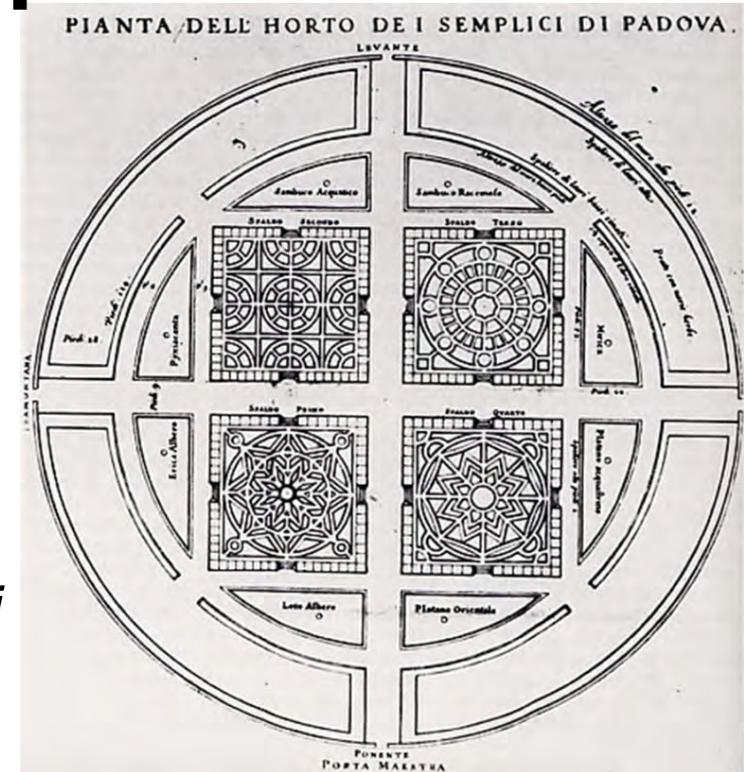
- Further development of the scientific knowledge empirically oriented:
  - Botanic: foundation of the first botanical garden for “pharmacology”;
  - Clinic: development of clinical teaching in Padua’s San Francesco Grande Hospital;
  - Anatomy: foundation of the first stable anatomical theatre and discovering of “real” of human anatomy;
- The University of Padua remained open to non-Catholic students, becoming the most important cultural centre for north Europe students and professors

# The Botanic Garden, First Laboratory of “Pharmacology”



Inaugurated in  
1545, first in the  
world, now  
**UNESCO**  
Heritage

G. Porro,  
*L'horto dei  
semplici*,  
Venice 1591.



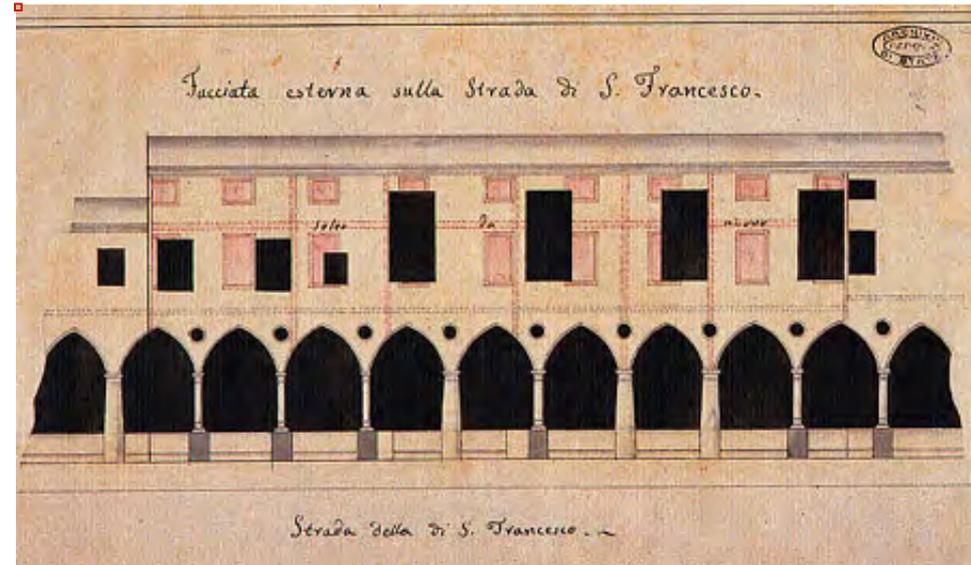
# The San Francesco Hospital, dawn of Clinical Medicine



**Founded between 1414-1416**

# Clinical teaching at the University of Padua in the late 16th Century

- Daily hospital rounds
- Systematic teaching of urine and pulses
- Autopsies of fatal cases



***As you approach a patient, you must do the following, namely first look at his face, then talk with him, take his pulse, and observe anything you believe necessary to understand the disease.*** G. B. Da

*Monte 1543*

# In Sacrosancta (1564)



**Pius IV (1499-1565)**

Following the Catholic Reformation with the Council of Trent, Pope Pius IV issued the papal bull “In Sacrosancta” according to which any student had to give a *catholic profession of faith* to obtain the degree.

However, the University of Padua remained the only one still open to Protestants students and professors. For achievin graduation a sort of private degree was established to bypass the necessity of the profession of faith (Palatin Count)

## A turning point in the history of science

- Publication of *De Revolutionibus Orbium Coelestium* by Nicolaus Copernicus
- Beginning of Clinical Medicine at the patient bedside by Giovanni Battista Da Monte
- Publication of *De Humani Corporis Fabrica* by Andreas Vesalius





NICOLAVS COPERNICVS

ASTRONOMVS POLONVS  
IN HOC GYMNASIO  
MEDICINAE A. 1501 - 1503 STVDVIT  
PYTHAGOREOS ILLOS SECVTVS  
ROTANTEM TERRAM  
SOLEM STANTEM  
MENTE VIDIT NVMERISQVE  
LIBRO "DE REVOLVTIONIBVS" TESTE

*«Maxime ut Nicolaus medicinis studere promisit»*

Varmia chapter, July 1501



# The major opportunity for Copernicus in Padua

The reading and translation of the original classical textbooks written in Greek by Teofilatto, Liside, Sofocle, Aristarco, Filolao

“Iter ad Phytagoreos”

# The Invention of Printing, 1452



*In the absence of books, the same tomb  
holding  
the body would cancel also the memory of  
man*  
Cardinal Bessarione, 1468



“[...] Albertino Bottoni Professor of Practical Medicine [...] collaborated with the excellent Marco degli Oddi, clinician at San Francesco Hospital and University Professor, to bring us at this hospital, after the lectures, and visit the patients affected by different diseases. By this way, they show us how to apply in practice the different doctrines though at the public lectures, [...]”.

“Toward the end of October, being the right season for anatomical dissections, Bottoni and Oddi decided to open the cadavers of those women who died in the Hospital to see in the presence of students the seat and causes of diseases”

# 1543, Vesalius investigates the microcosm of human body



**“In Vesalius the mind of the artist and the mind of the scientist seem almost to have been fused in one” *Butterfield, 1958***

# To the Podestà of Padua

Since Anatomy is very useful to students of Medicine, and the present time is very appropriate, I beg your Magnificence to give some subjects, sentenced to death, to the most excellent Fallopius who will make dissection with great expectation and satisfaction of those scholars...

The Reformer of Padua University,  
December 15, 1556





VENETIIS, Ex Typographia Nicolai Beuilacqua 1559.  
CVM PRIVILEGIIS.

*Alonso de Avila*

- Andreas Vesalius, 1543
  - *De Humani Corporis Fabrica*
- Matteo Realdo Colombo, 1559
  - *De Re Anatomica*
- Gabriele Falloppius, 1561
  - *Observationes Anatomicae*
- Fabrici ab Aquapendente, 1603
  - *De Venarum Ostioliis*
- William Harvey, 1628
  - *De Motu Cordis et Sanguinis*
- Giovanni Battista Morgagni, 1761
  - *De Sedibus et Causis Morborum*

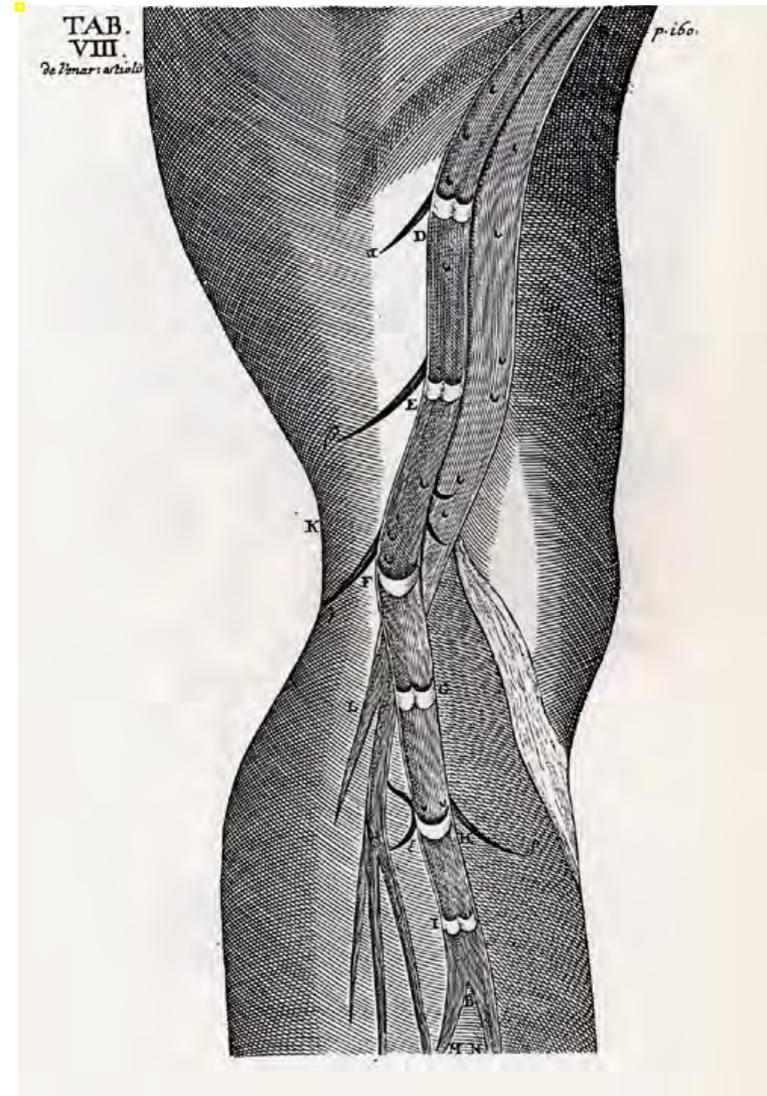
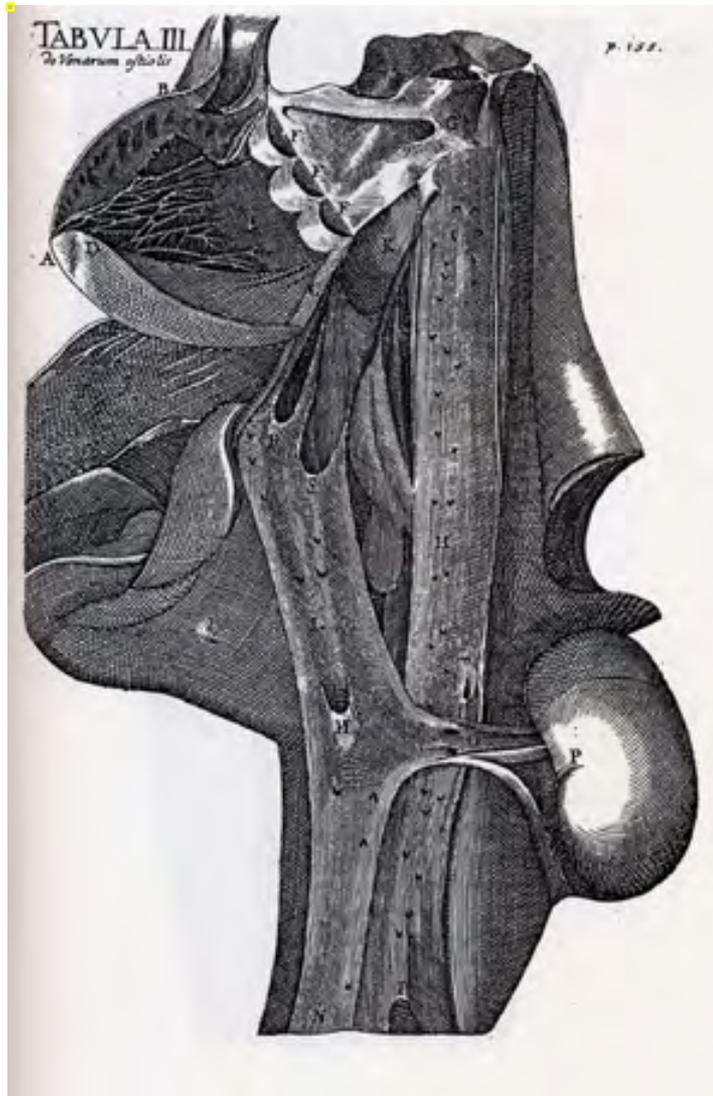


# Fabrici ab Aquapendente, 1537-1619

He builds in 1594 a permanent anatomical theater in Padua,  
first Lab in the history of medicine



# Fabrici describes the venous valves



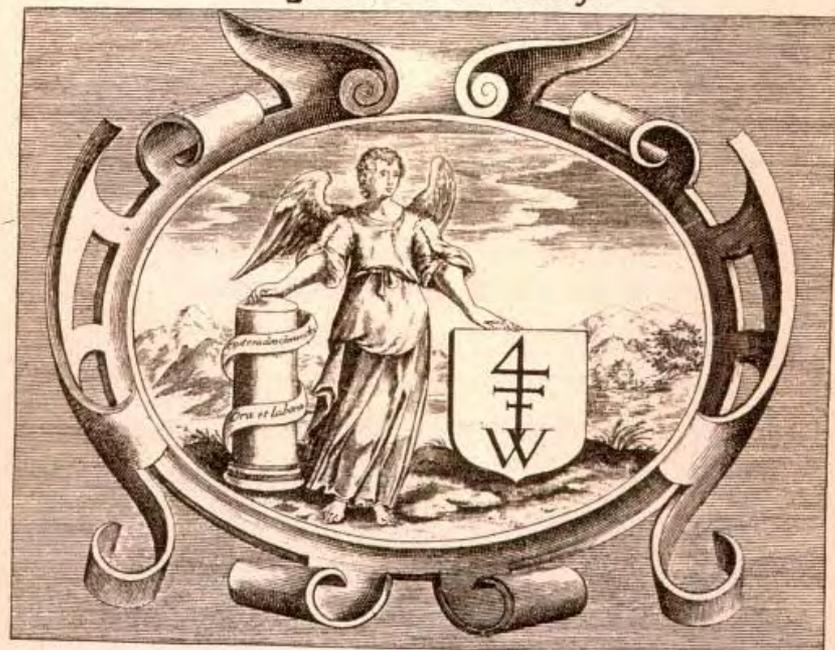
**De Venarum Ostioliis, 1603**



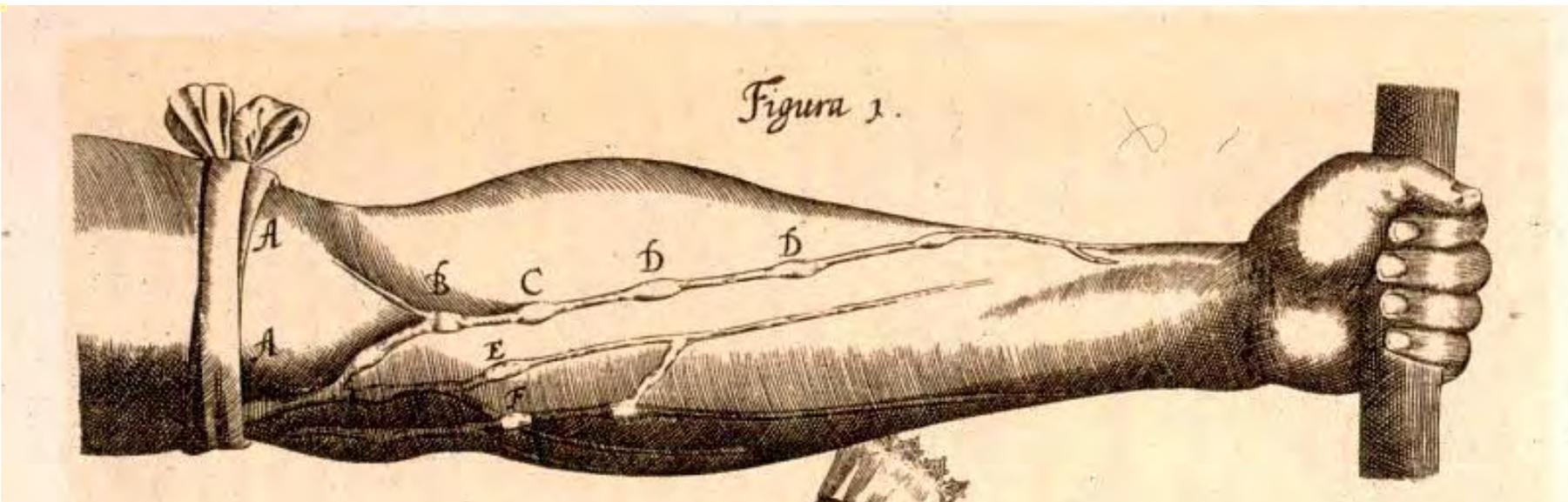
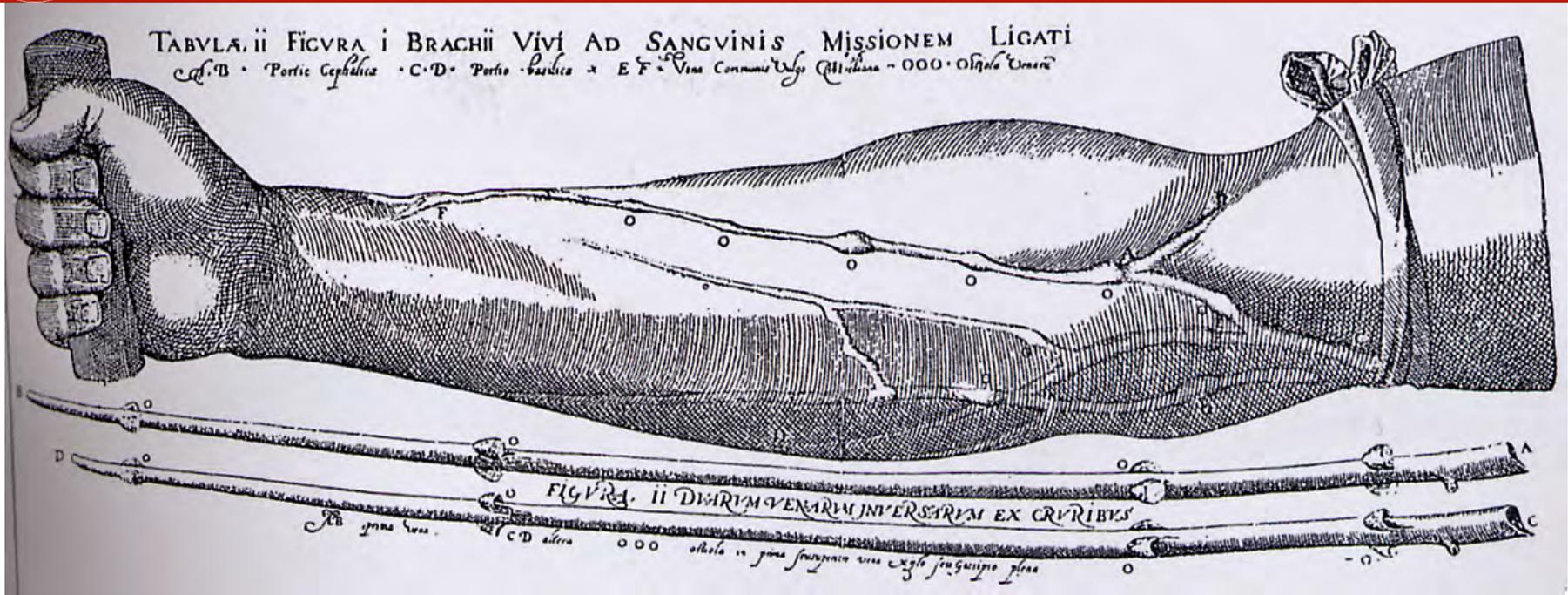
*In the Collection of W. Wood. Engraved by J. P. Knapton London 1729. J. Stobber sculp. Lond. 1729.*

EXERCITATIO  
**ANATOMICA DE**  
**MOTV CORDIS ET SAN-**  
**GVINIS IN ANIMALI-**

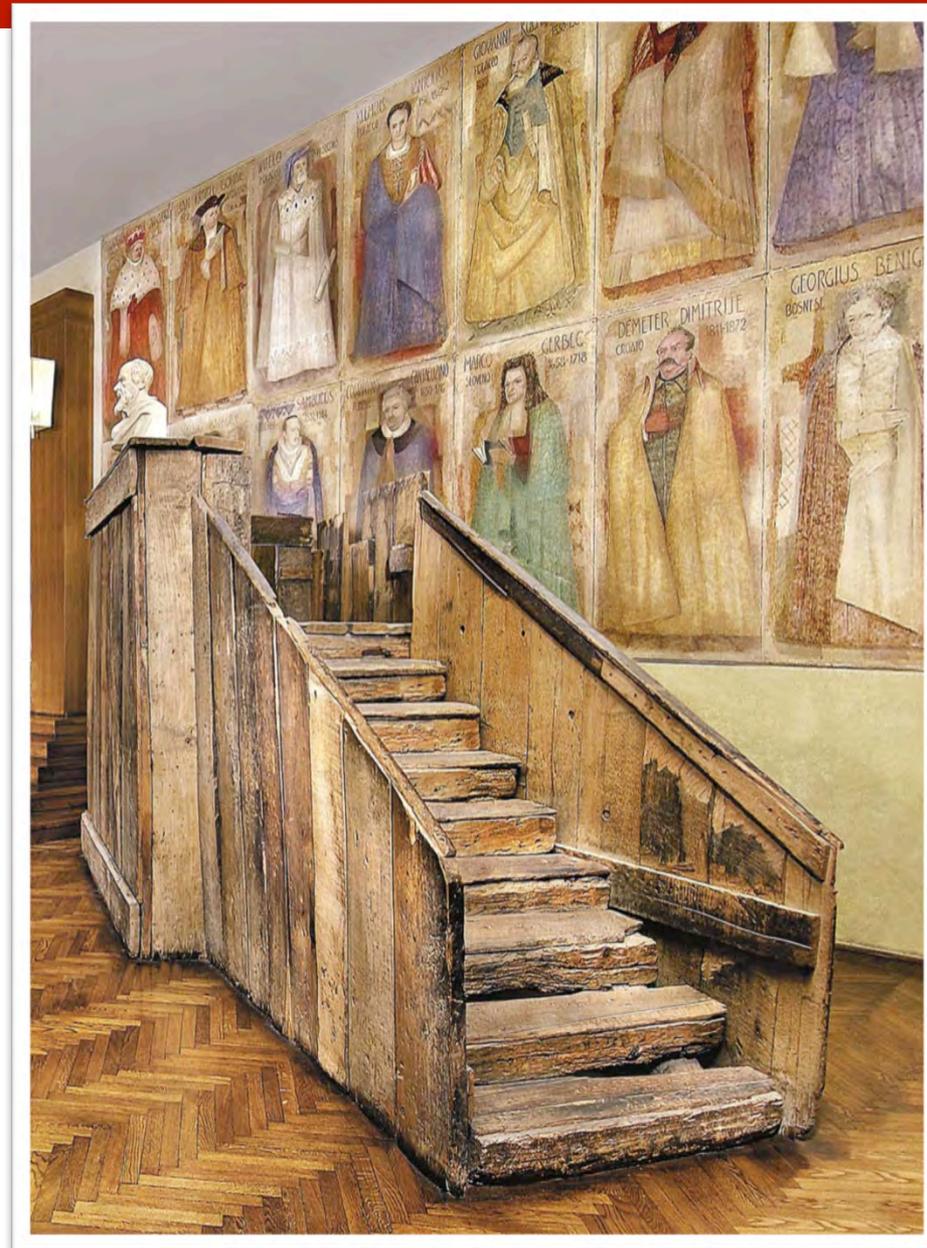
BVS,  
 GVILIELMI HARVEI ANGLI,  
 Medici Regii, & Professoris Anatomia in Col-  
 legio Medicorum Londinensi.



FRANCOFVRTI,  
 Sumptibus GVILIELMI FITZERI.  
 ANNO M. DC. XXVIII.



# Experimental Method





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# SIDEREVS

## NVNCIVS

MAGNA, LONGEQVE ADMIRABILIA  
Spectacula pandens, suspiciendaque proponens  
vnicuique, præferum verò

PHILOSOPHIS, atq; ASTRONOMIS, qua à

**GALILEO GALILEO**  
PATRITIO FLORENTINO

Patauni Gymnasij Publico Mathematico

## PERSPICILLI

Nuper à se reperti beneficio sunt obseruata in LVNÆ FACIE, FIXIS IN-  
NUMERIS, LACTEO CIRCVLO, STELLIS NEBVLIS,

Apprime verò in

## QVATVOR PLANETIS

Circa IOVIS Stellam disparibus intervallis, atque periodis, celeri-  
tate mirabili circumuolutis; quos, nemini in hanc usque  
diem cognitos, nouissimè Author depræ-  
hendit primus; atque

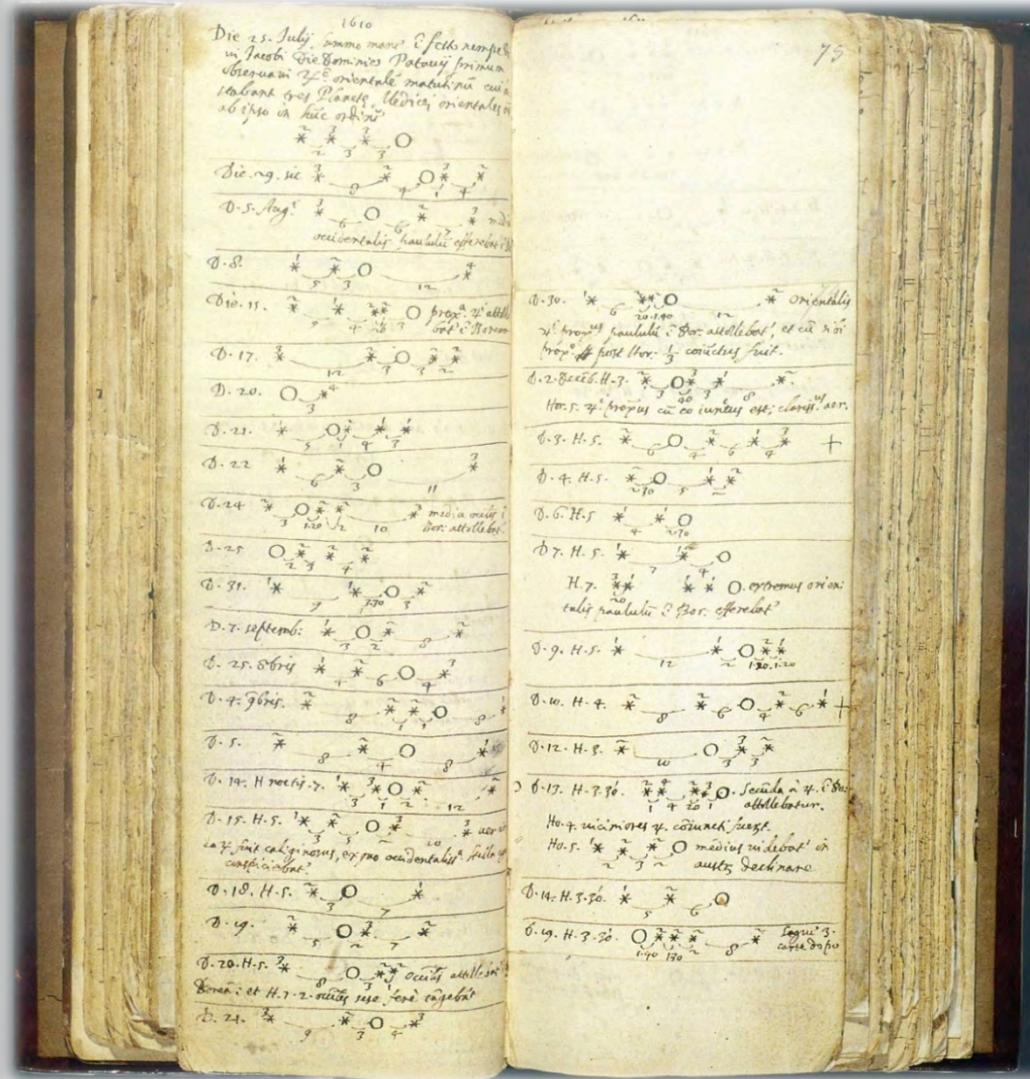
# MEDICEA SIDERA

NVNCVPANDOS DECREVIT.



VENETIIS, Apud Thomam Baglionum. M D C X.

Superiorum Permissu, & Privilegio.

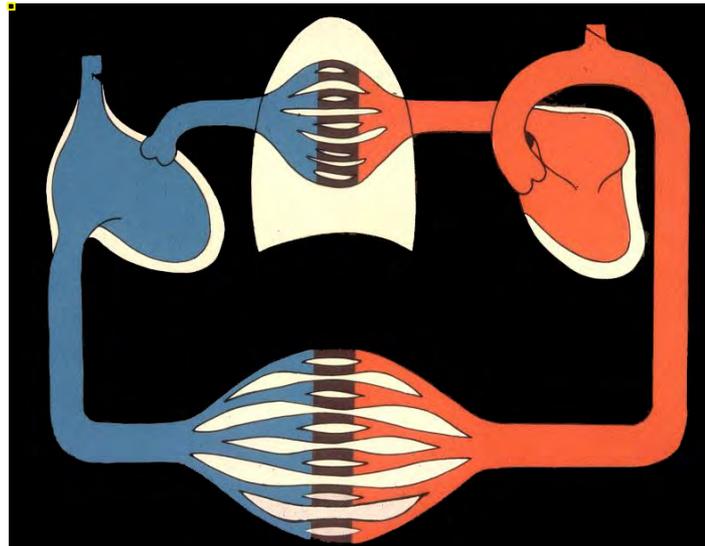




# 1628, Harvey publishes the theory of blood circulation

He estimated the volume of blood passing through the heart of a given time and surmised that the liver was unable to produce so much blood in such a short period of time. Thus, it could be kept constant only in a closed circulatory system.

## The Dawn of Physiology



*“Necessarium est concludere, circulari quodam motu in circuitum agitari in animalibus sanguinem et esse in perpetuo motu”*



die tertia Aprilis, Nobilem, & Eruditiss. D. Guglielmum Harueum, Folkstoniensem Anglum Illustris D. Thomę filium, Inelyta Nationis Angle Consiliarium, Themata in Artib. & Medına. proposita per Mag. & Excellentiss. Artium, & Med. Doctores Dños, Hieronymum Fabritium ab Aquapendente Anatomen, & Chyrurgiam publice profitentē; Io: Thomam Minadom Rhodiginum Practicam Extraordinariā Medicinę in primo loco legentem; Iulium Casseriū Placentinum Anatomen, Physicam, & Chyrurgiam exercētē; Georgium Raguseum Venetum Phiam Ordinariam in secundo loco declarantem; docte, eloquenter, laudabiliter, & excellenter pertractantem, Argumentis, Dubijs,

præmissa specialiter rogatis. L. D.

*Jelen sigismundus capilipi  
us comes*

*Joseph Carrara Brixianus Sordicus*

*Hier. Fabricius ab Aquapendente.*

*Jo: Thomas Minadom Rhodiginus.*

*Georgius Raguseus Venetus.*

*Iulius Casserius Placentinus*

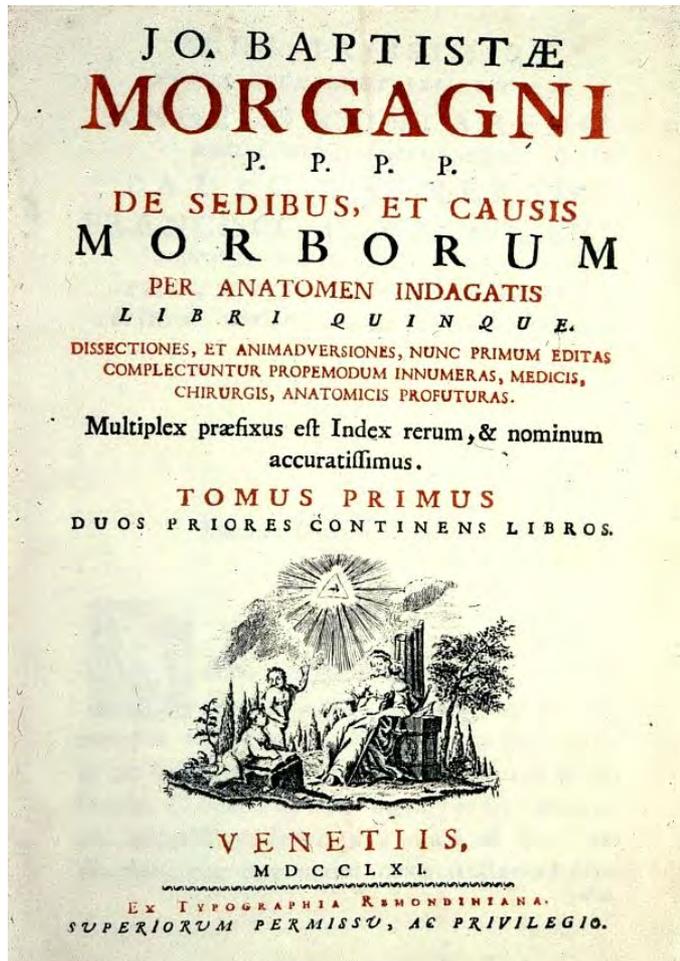
*Fronimus Relatus notarius publicus  
Saxaninus et Concellarius fidelissimi  
Ill. et. Comitibus marchato ut supra  
nomi propria infideliem subscrivit*

*An. Etat. 24*

*Natus A. S. 1578 Apr. 2.*

**Gift to the Royal College of Physicians from the Headmaster of the King's School, Canterbury July 7, 1766**

# Morgagni and the method of clinico-pathologic correlations



“...established pathological anatomy as a science, thus changing the course of medical diagnosis...”

*Encyclopedia Americana*



“We will state that it is impossible to pursue the nature and cause of any disease without dissection of the respective cadavers”

■ **DAWN OF  
ORGAN  
PATHOLOGY**





**Harvey**... was for some years at the University of Padua, where the chief of his predecessors, **Vesalius, Colombo, Fabricius**, had worked. ...

Both **Copernicus and Galileo** were at the same University at important periods of their lives...

In so far as any single place could claim the honour of being the seat of the scientific revolution, this distinction must belong to **Padua...for here medicine was the queen of the sciences.**