



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

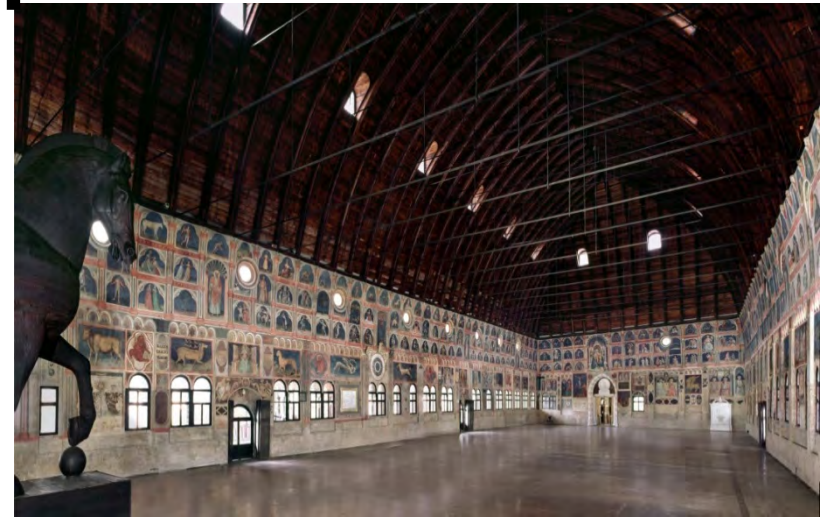
1088

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 Domination 1405-1796

- 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**

**Universitas Iuristarum  
(1399)**

# Civil Law

# Canon Law



## Specific Rector (who was a



**50/60**  
**professors**  
**(Lectors)**  
**1000/1500**  
**students**

**Universitas Artistarum  
(1399)**

**Medicine**  
**Philosophy**  
**Theology**



**Specific Rector  
(who was a student)**



# Bo Palace of the University of Padua



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

# 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



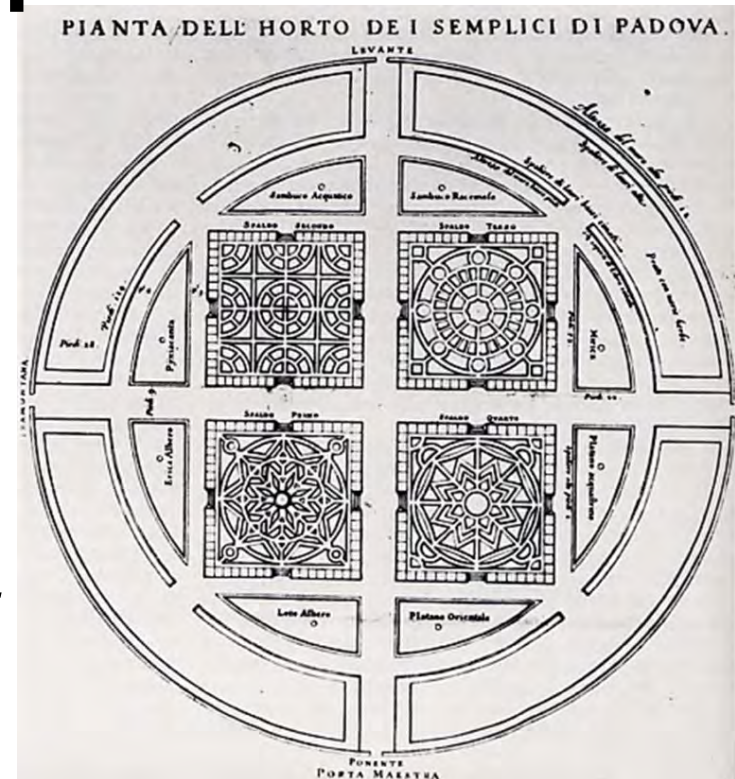
- Further development of the scientific knowledge empirically oriented:
  - Botanic: foundation of the first botanical garden for “pharmacology”;
  - Clinic: development of clinical teaching in Padua’s San Francesco Grande Hospital;
  - Anatomy: foundation of the first stable anatomical theatre and discovering 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”



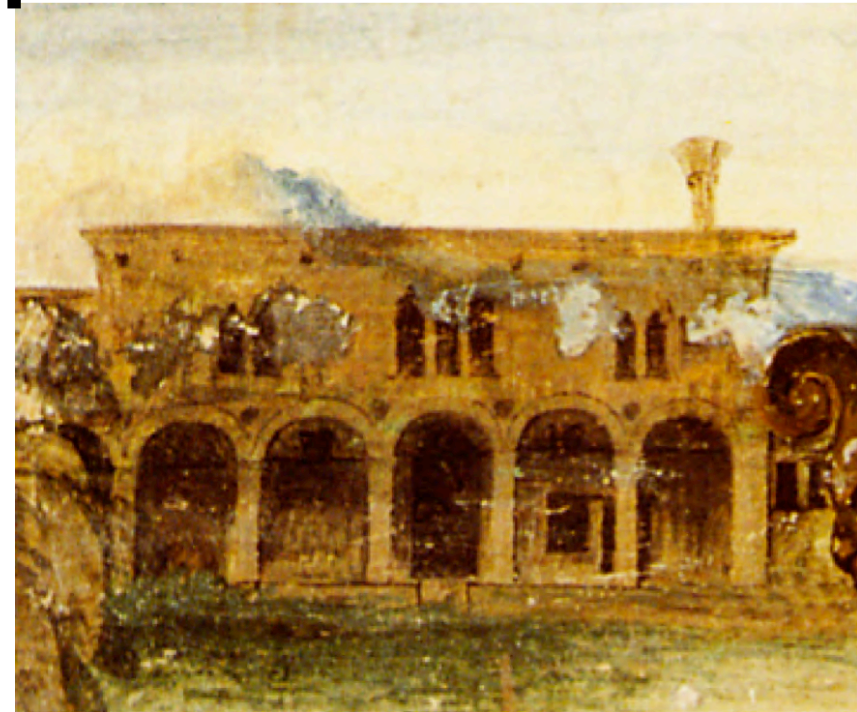
Inaugurated in  
1545, first in the  
world, now  
**UNESCO**  
Heritage

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





# The San Francesco Hospital, dawn of Clinical Medicine

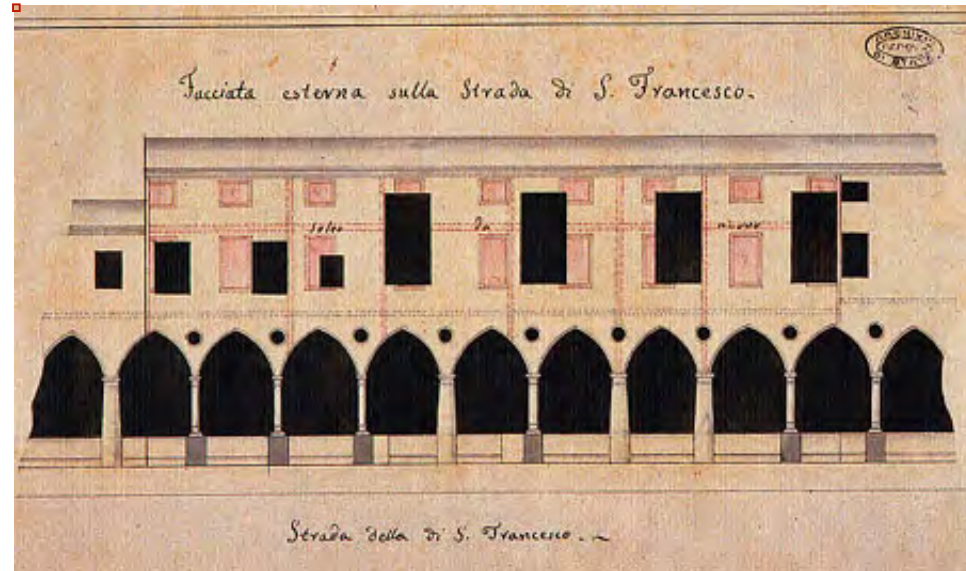


**Founded between 1414-1416**



# 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 Trento, 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)

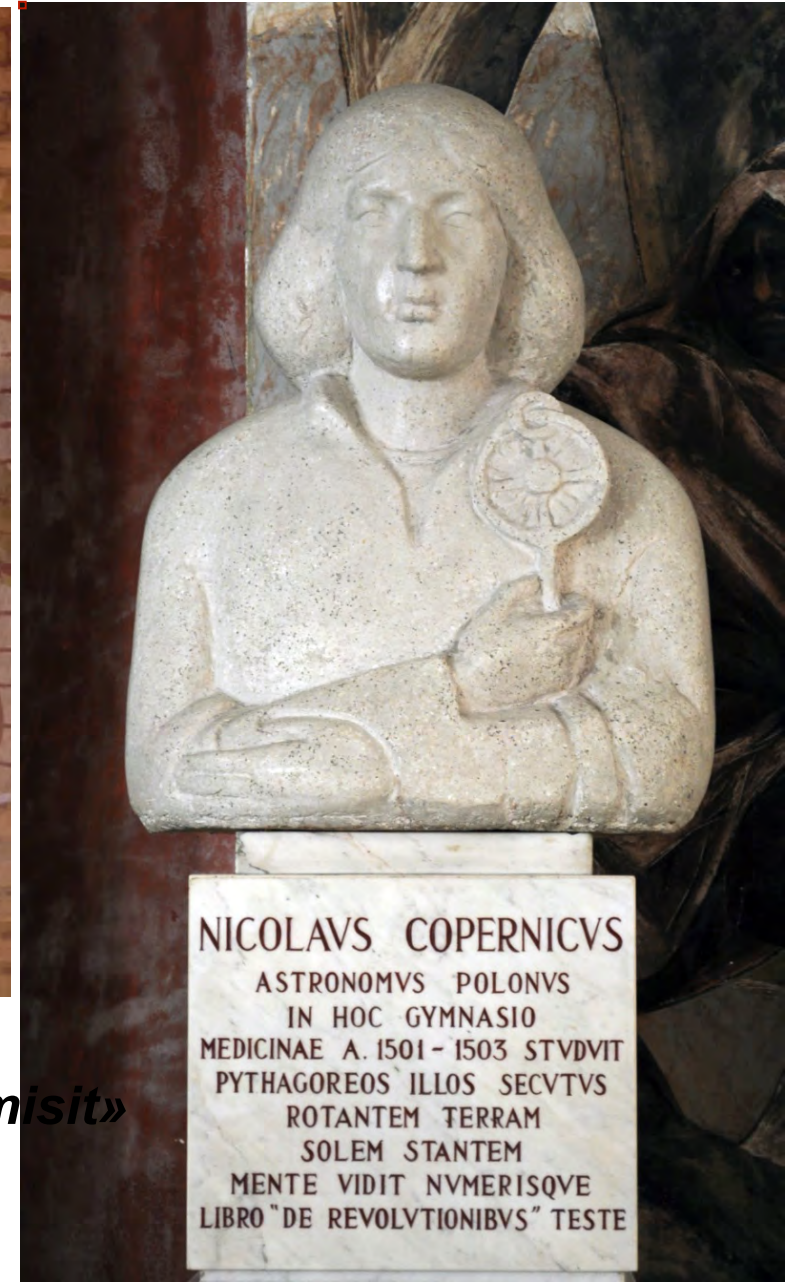
# 1543: “Annus mirabilis”

## 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







NICOLAUS 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, Lyside, Sofocle, Aristarco, Filolao

“Iter ad Phitagoreos”

# 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

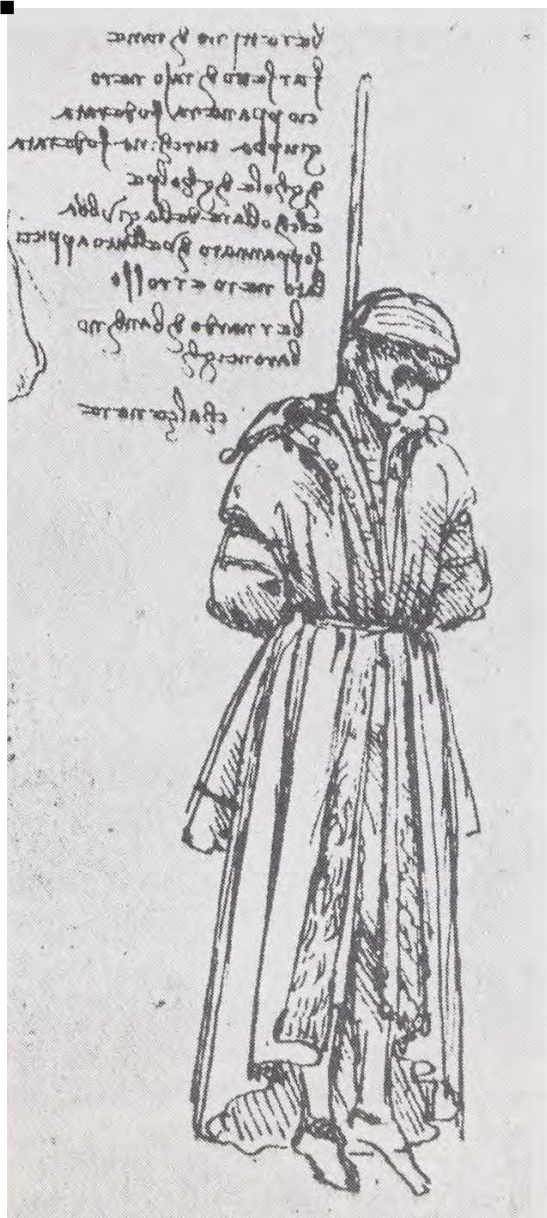


**“In Vesalius the mind of the artist and the mind of the scientist seem almost to have been fused in one” *Butterfield, 1958***

# 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 Bevilacqua  
CVM PRIVILEGIIS.

1559.

*Alonso G. Antoni*



- 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*



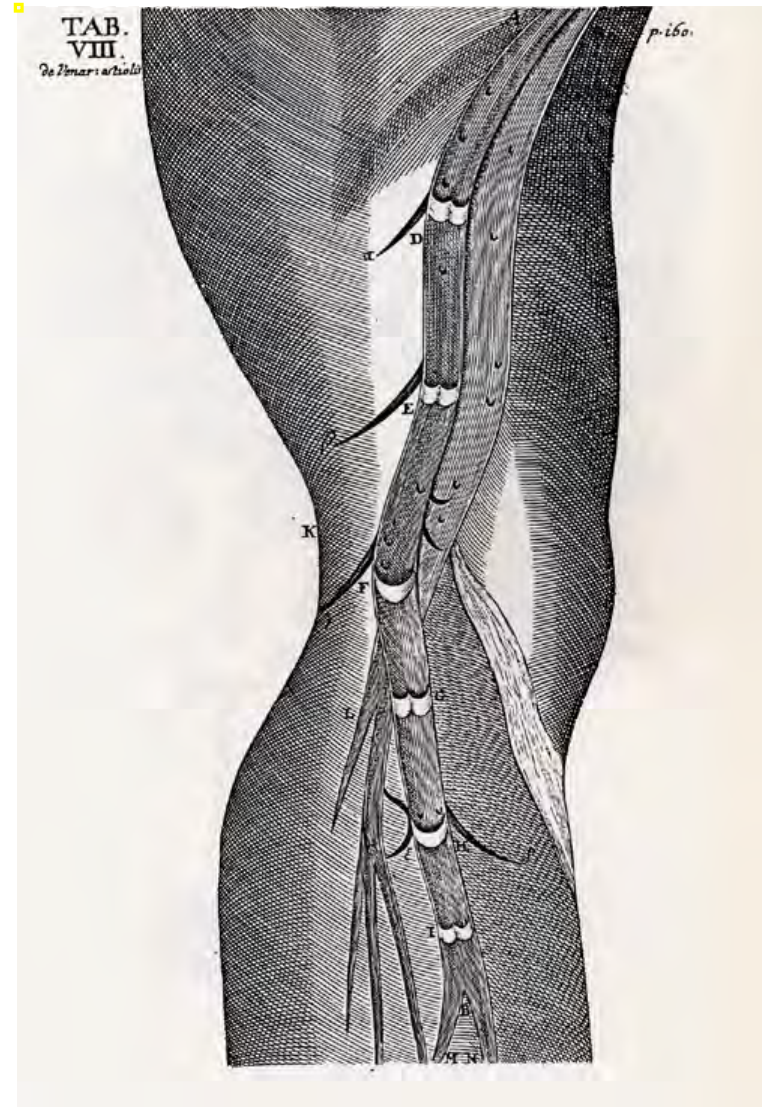
# Fabrici ab Aquapendente, 1537-1619

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





# Fabrizi describes the venous valves



**De Venarum Ostiolis, 1603**





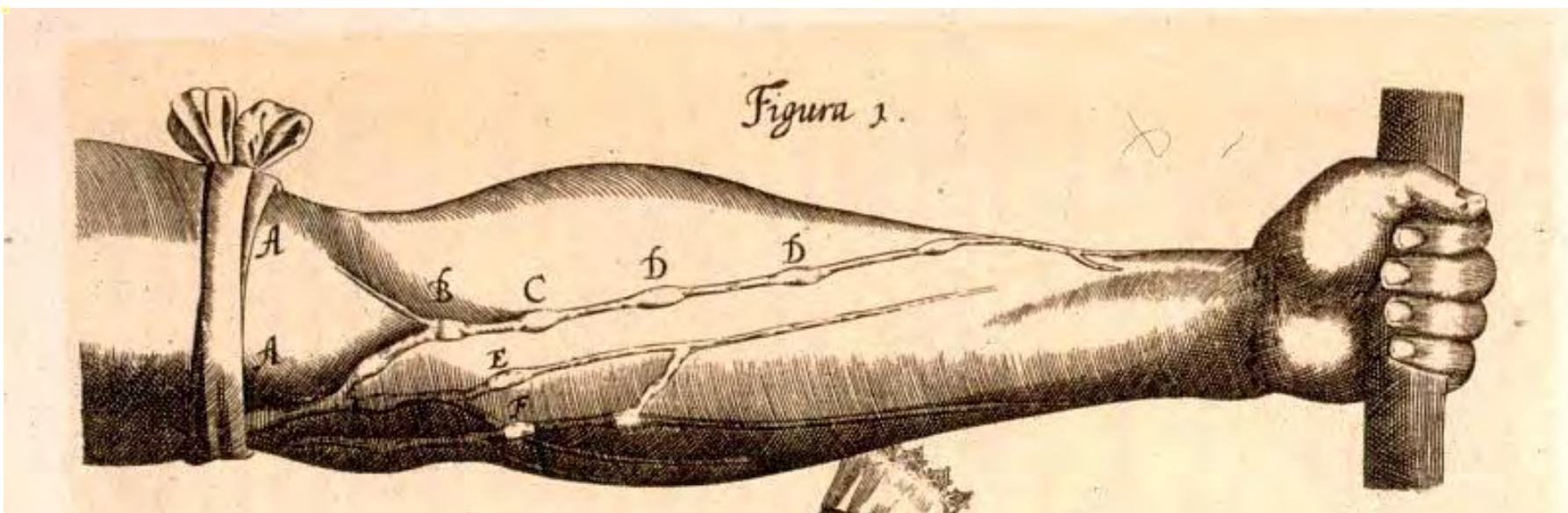
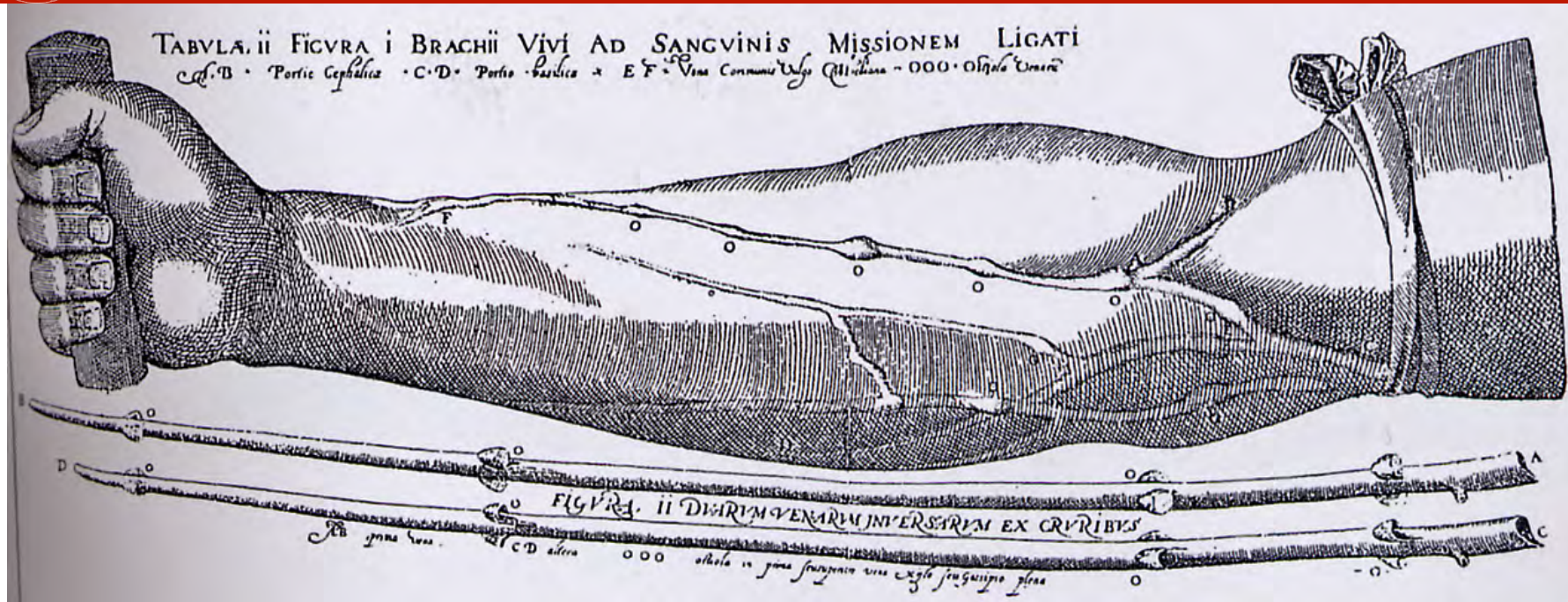
Engraved from the Collection of Dr. Mead. Suppl. 1712. J. A. P. Waples London 1779. J. Blakeney sculp. 1779.

EXERCITATIO  
**ANATOMICA DE**  
 MOTV CORDIS ET SAN-  
 GVINIS IN ANIMALI-  
 BVS,  
 GVILIELMI HARVEI ANGLI,  
 Medici Regii, & Professoris Anatomia in Col-  
 legio Medicorum Londinensi.



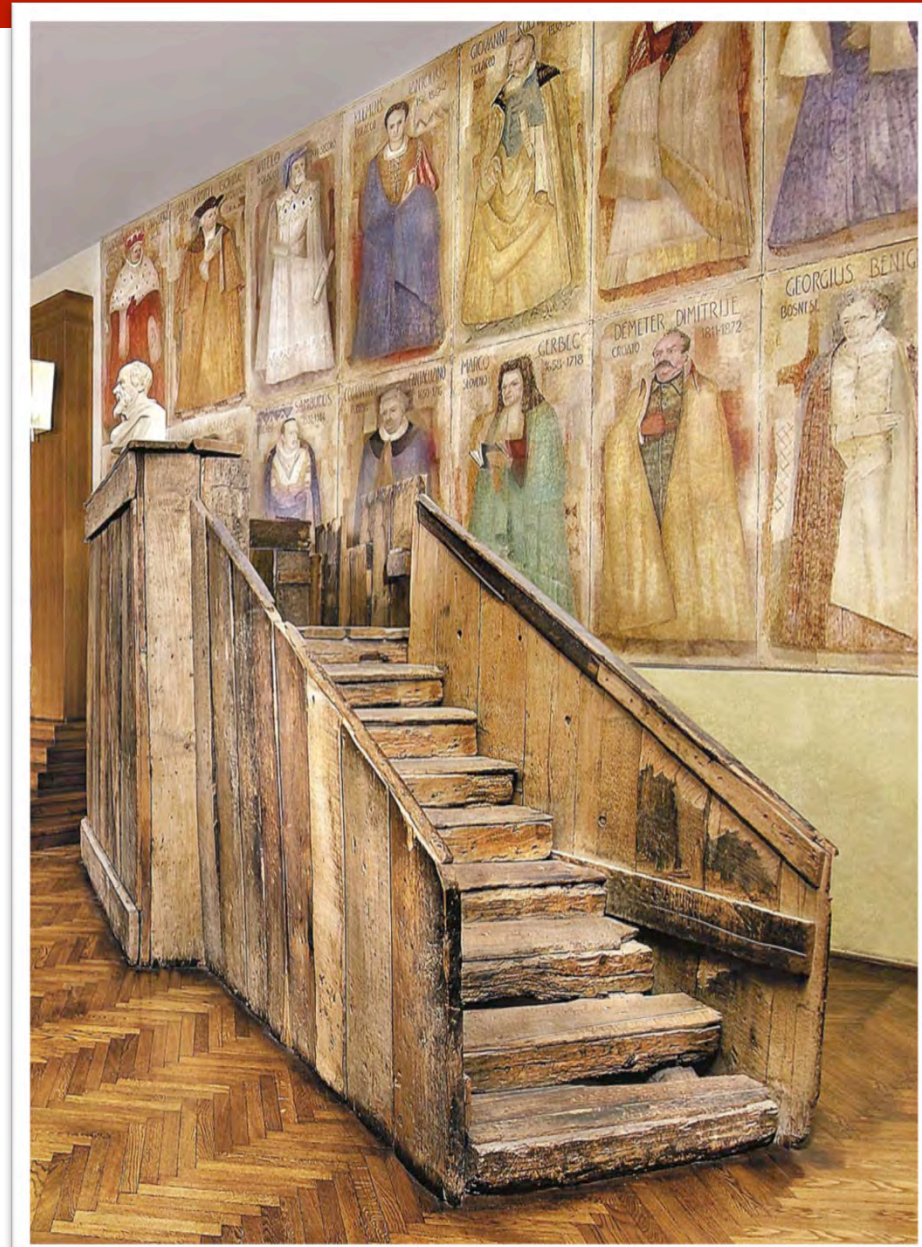
FRANCOFVRTI,  
 Sumptibus GVILIELMI FITZERI.  
 ANNO M. DC. XXVIII.







# Experimental Method





# SIDEREVS

## NVNCIVS

MAGNA, LONGEQVE ADMIRABILIA

Spectacula pandens, suspiciendaque proponens  
vnicuique, præsertim verò

PHILOSOPHIS, atq; ASTRONOMIS, qua à

# GALILEO GALILEO

## PATRITIO FLORENTINO

Patavini Gymnasij Publico Mathematico

## PERSPICILLI

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

Apprime verò in

## QVATVOR PLANETIS

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

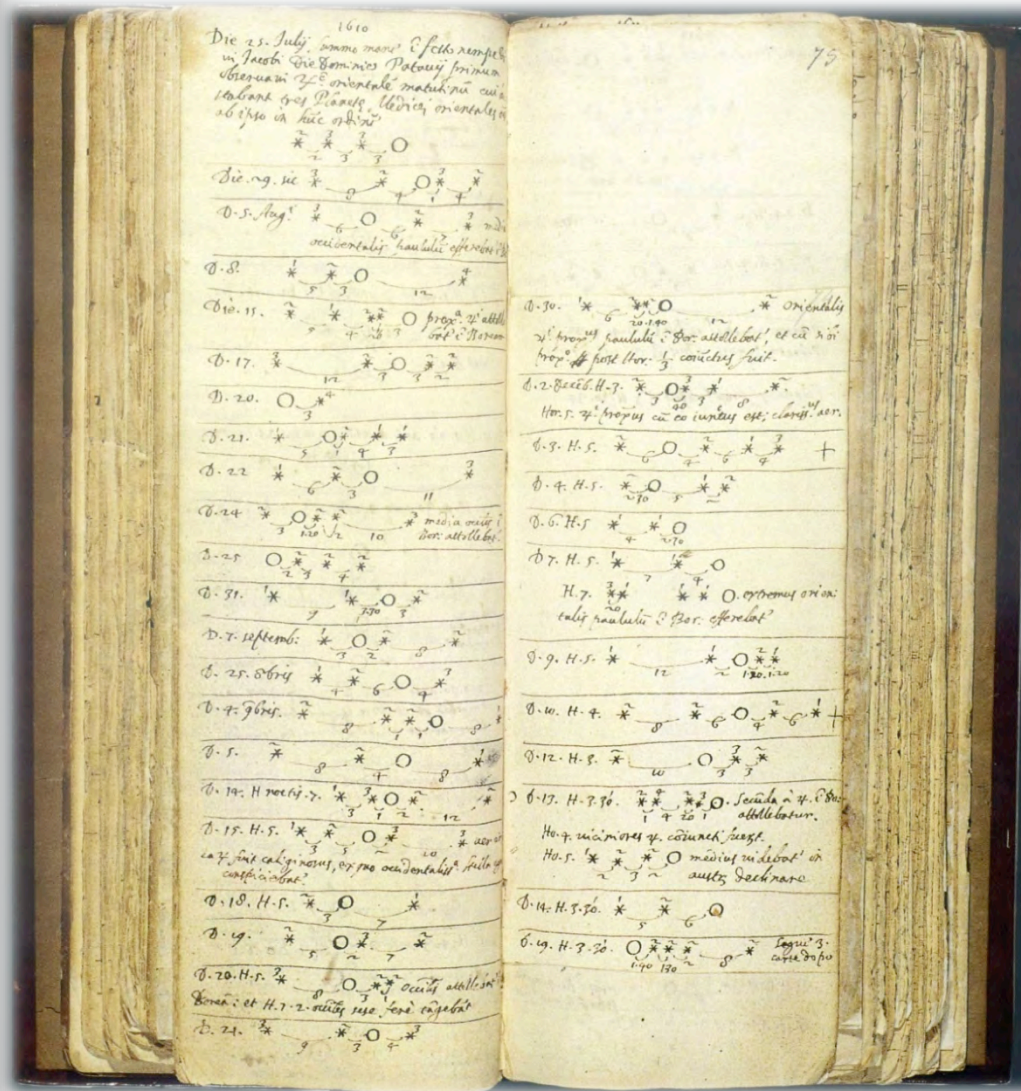
# MEDICEA SIDERA

NVNCVPANDOS DECREVIT.



VENETIIS, Apud Thomam Baglionum. M D C X.

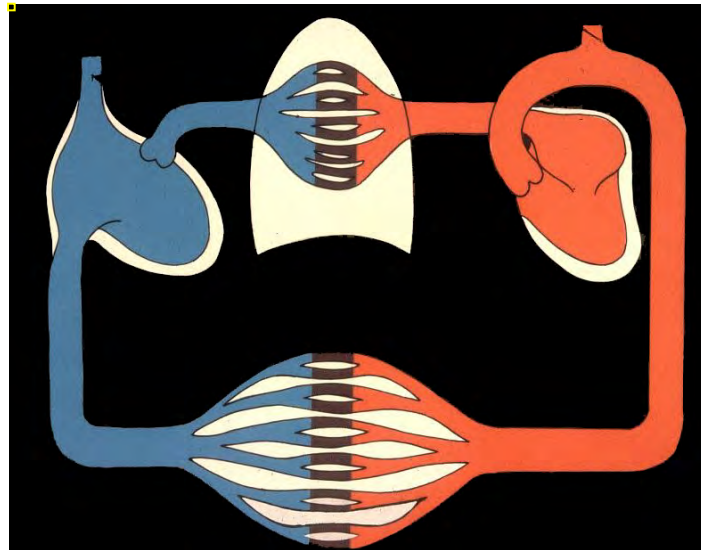
Superiorum Permissu, & Privilegio.



# 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, & Erudi-  
ditis. D. Guglielmum Harueum.  
Folkstoniensem Anglum Illustris D.  
Thome filium, Inclyta Nationis An-  
gle Consiliarium, Themata in Artib.  
& Medica. proposita per Mag<sup>o</sup>. & Ex-  
cellentis. Artium, & Med<sup>ic</sup>. Doctores  
Dños, Hieronymum Fabritium ab A-  
quapendente Anatomen, & Chyrur-  
giam publice profitentē; Io: Thomam  
Minadum Rhodiginum Practicam  
Extraordinaria Medicine in primo  
loco legentem; Iulium Casseriū Pla-  
centinum Anatomen, Physicam, & Chy-  
rurgiam exercetem; Georgium Ragu-  
seum Venetum Phiam Ordinariam in  
secundo loco declarantem; docte, elo-  
quenter, laudabiliter, & excellenter  
pertractantem, Argumentis, Dubijs,

præmissa specialiter rogatis. L. D.

*Jelen sigismundus capilipi  
us comes*

*Joseph Carrara Brixianus Sincia*

*Hier<sup>o</sup> Fabritius ab Aquapendente.*

*Jo Thomas Minadous Rhodiginus.*

*Georgius Ragaseus Venetus.*

*Iulius Casserius Placentinus*

*Franciscus Relatus notarius publicus  
Sagunus et Cornelianus presbiter  
Hic et Corvitiis munitis ut supra  
nomina propria infidelium subscrivunt*

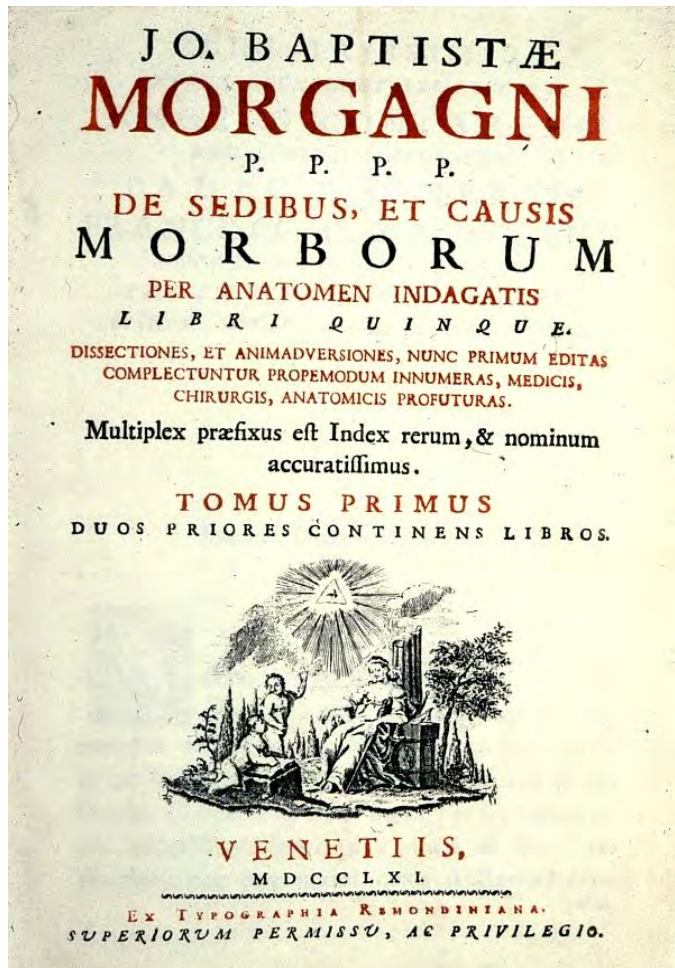
*An. Etat. 24*

*Natus A. D. 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.**