

#### Exploring the History of Medicine

Or, five thousand years of medical history in five weeks ... to which is added appropriate

commentary on a vast array of other subjects including the invention of writing, clay tablets, papyrus & palm leaves & paper along with the printing press and movable type, with a brief history of bookbinding including descriptions of the various materials used in the art with fine examples from many ages, plus the conservation and restoration of a handsome volume ... all of this and much more to inform & stimulate interest in the subjects presented ...

Presented for the distinguished members of the M2 Class in the year MMXII of the Common Era by their Special Collections Librarian, [Ron Sims], Distinguished Lecturer, Seer of the Past, All knowing (with the aid of 21st century technology ...)



### **Medical School Library**

Dr. Irving Cutter (1875-1945), Dean of the Medical School from 1925 to 1941, was responsible for the library's extensive collection development.

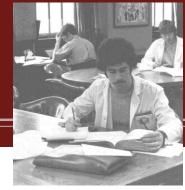
He began his working life as a book salesman for the Ginn Company and remained a "bookman" all his life. Dean Cutter saw the Medical Library as his personal project, and during his tenure expanded its holdings from 13,000 to nearly 92,000 volumes.

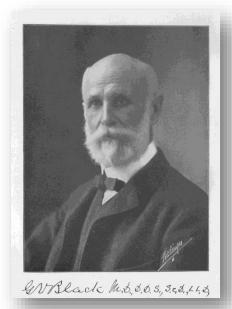
Most importantly for the historical collections, Cutter capitalized on the Great Depression by purchasing European rarities at bargain prices. Dean Cutter was a noted rare book collector in private life, specializing in obstetrics & gynecology and William Harvey.



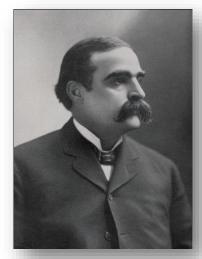


## **Dental School Library**

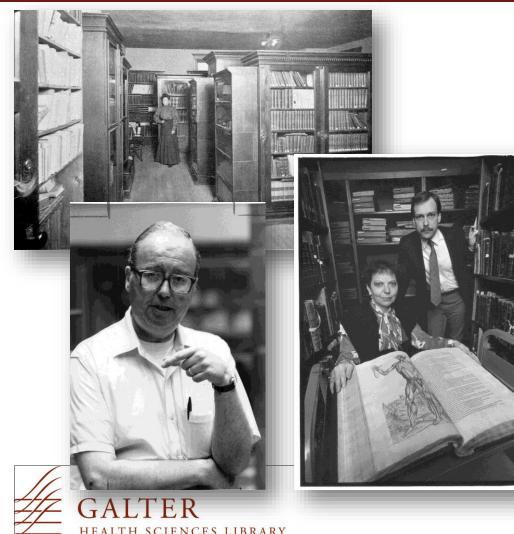


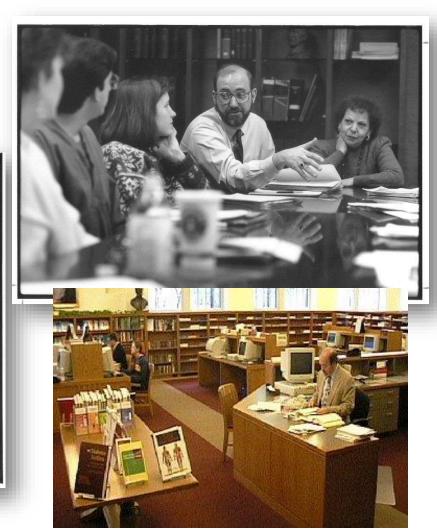


In 1896, Dr. G.V. Black and Dr. Theodore Menges purchased personal libraries of many different American dentists to establish a dental collection at Northwestern University Dental School. William H. Trueman, an avid collector of pre-1800 dental literature, donated his collection to the Dental School in 1925. Books, prints, and paintings by the French, English, Dutch, and Flemish were collected by Dr. William Bebb during two European visits in the early 1920s. A special effort was made to collect early works on anesthesia, a topic of particular interest to the founders.



# Dental & Medical Librarians

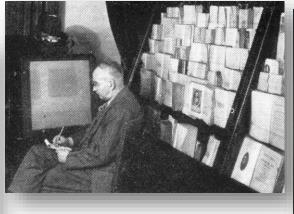




HEALTH SCIENCES LIBRARY
of Northwestern University's Feinberg School of Medicine

# Dental School Library 10<sup>th</sup> Floor Ward, 1926-1996









### Medical School Library 1926-1996







HEALTH SCIENCES LIBRARY
of Northwestern University's Feinberg School of Medicine

# Galter Health Sciences Library,



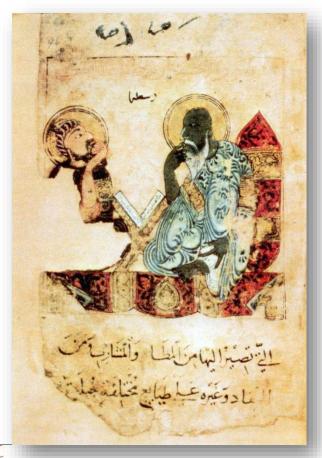




GALTER

HEALTH SCIENCES LIBRARY
of Northwestern University's Feinberg School of Medicine

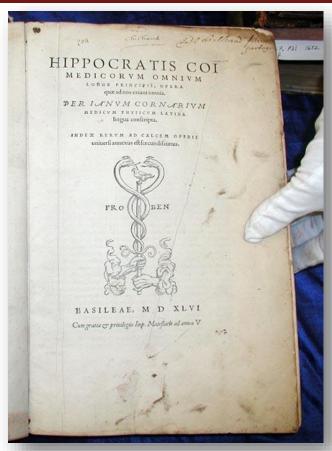
#### Άριστοτέλης, (384 BC – 322 BC)



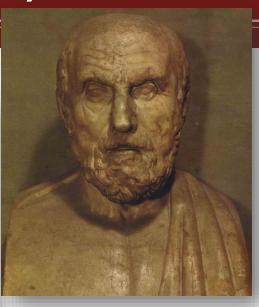




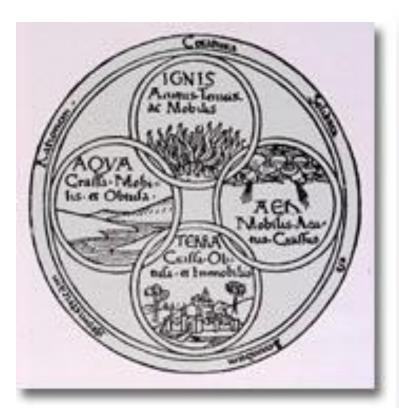
# Ίπποκράτης (c. 460 BC – c. 370 BC)







# Humoral System as adopted by Hippocrates from Aristotle



The four elements

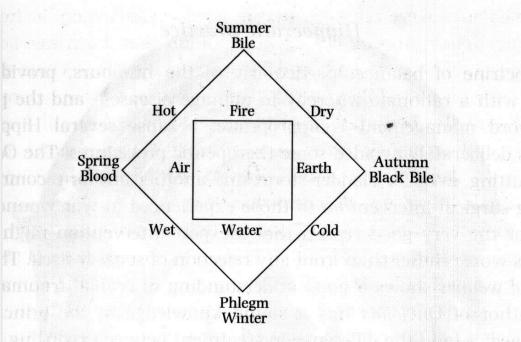
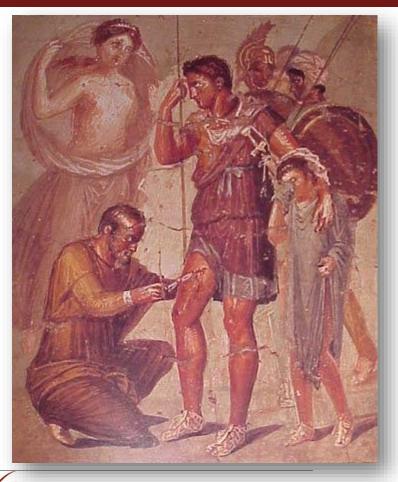


Fig. 4. Plan of the Hippocratic humoral system in On the nature of Man.



Western medical tradition: 800 BCE-1800 CE (1995) p. 25

### **Roman-Greek Medicine**







# Γαληνός

Aelius Galenus or Claudius Galenus (September AD 129 – 199/217)

Incredibly prolific writer ...

Physiology and Anatomy

Hygiene

Etiology

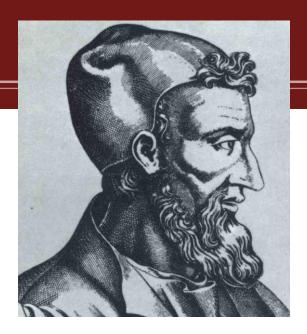
Semeiotics

Pharmacy

Instruments of Clinical Practice

Therapeutics

Commentary on Hippocrates' Aphorisms



Galen of Pergamon



# Aulus Cornelius Celsus (ca. 25 BCE—ca. 50 CE)

De medicina ...1st-century medical treatise

Book I – Diet, hygiene, and the benefits of exercise.

Book II – The cause of disease, its symptoms and prognosis.

Book III – Treatment of diseases, including the common cold and pneumonia.

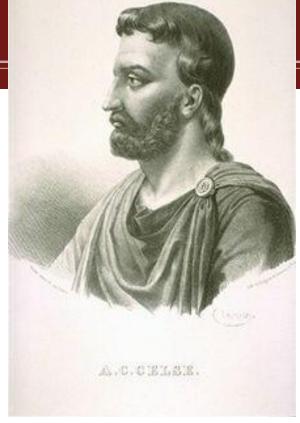
Book IV – Anatomical descriptions of selected diseases.

Book V – Medicines, including opiates, diuretics, purgatives and laxatives.

Book VI – Ulcers, skin lesions and diseases.

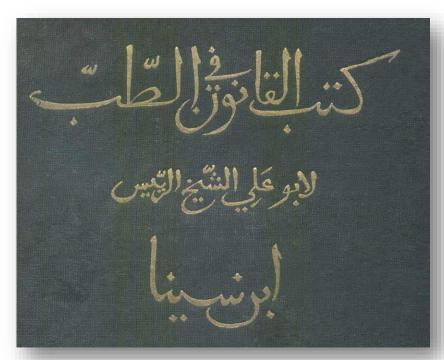
Book VII – Classical operations, such as lithotomy and removal of cataracts.

Book VIII – Treatment of dislocations and fractures.



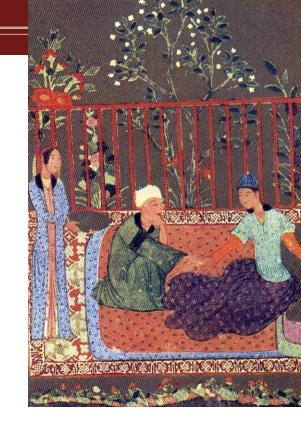


# Persian & Islamic medicine





ابن سينا





The opening decoration and invocation to Allah from a 16th century manuscript of Avicenna's Canon (Yale, Medical Historical Library, Cushing Arabic ms. 5, copied in 1006 H./1597-98 A.D.)

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Avicenna's four primary temperaments							
Evidence	Hot	Cold	Moist	Dry			
Morbid states	inflammations become febrile	fevers related to serious humour, rheumatism	lassitude	loss of vigour			
Functional power	deficient energy	deficient digestive power	difficult digestion				
Subjective sensations	bitter taste, excessive thirst, burning at cardiac	lack of desire for fluids	mucoid salivation, sleepiness	insomnia, wakefulness			
Physical signs	high pulse rate, lassitude	flaccid joints	diarrhea, swollen eyelids, rough skin, acquired habit	rough skin, acquired habit			
Foods & medicines	calefacients harmful, infrigidants beneficial	infrigidants harmful, calefacients beneficial	moist articles harmful	dry regimen harmful, humectants beneficial			
Relation to weather	worse in summer	worse in winter		bad in autumn			

Ibn Sīnā Ghānoon dár tèb

## Jewish Medicine

רמב"ם

Rambam (Hebrew acronym for "Rabbi Moshe ben Maimon")

Moses ben-Maimon, called Maimonides and also known as Mūsā ibn Maymūn Arabic:

موسی بن میمون

1135 CE-1204 CE

nem leib vielid; teten die dienee. ond da fpes getan betten da file ten fp in gu feinen gwaien britte. ren ond legten in auch gu in in & kercher Darnach an dem andere tag ward bem uchtet gefaget es waten zwii frawen die glaubten and an Jefum cuftii do warde er goznig und hief fi für in prin gen das tet man Do fprach et at im Je framen je folt euren ondelauben laffen ond folt den abgote teren opfferen & je mufte geoffe pein vnd mattet dazumb lepten wnd zu letft den todidie dzo half mit bauon kundfp npemad prin gendo ward er zoznig of hief einen roft maden ond gluent ho len barmder thin ond hieffe bie awi framen darauff legen da tes ten die diener Dnd on fp darauff kammido lobten fi got vina wa ten gedultig in frem leiden on in bem gabent fo je leben auff. Ond füren je felen gu ten ewiden freis ben Datnad nam ma Teas wie ber auf bem kercher ond lettet in and auff die glut und prennet in fo lang das er auch frarb voo füre fein fel zit den ewigen freite dar nach nam man Claudium ond Caftorium auf tem kercher vno marteret fofo lang bif das fo de fturben da fure je felen gu te ewi gen freiden Darnach hief o rich ter die beilige leidma in ein maf fer werffen das fp die eriften mit

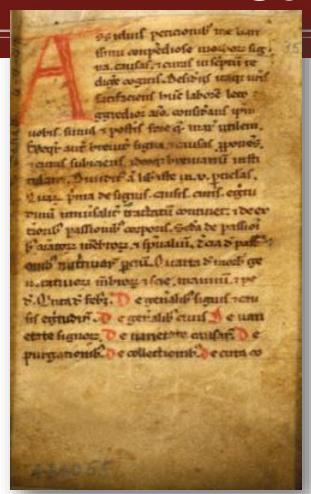
funden die rüften jer heilig leich nam und begreiben fü alle drege beimliche mit geoffer andacht wit wirdigkept. Aun bitten wir die begligen der brider das fü goth für uns bitten un und num got erwerbe das wir auch kümen 31 den ewigen freiden Amen

Flon fant Bafilio

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Ephrain, a Jewish physician attending St. Basil, Scobsser (1487)

#### **School at Salerno**



The cradle of Western medical education was the medical school in Salerno, Italy, on the Amalfi Coast. Christian, Islamic and Jewish medicine flowed together creating a medical renaissance. The school, probably in existence as early as the 10th century, was famous throughout the Western world by the 13th century. At the center of medical training was the knowledge of herbs, both their medicinal and "magical" properties. The school at Salerno possessed the oldest academic botanic garden in Europe.

Today, only ruins of an ancient citadel may be seen above the modern Salerno.

The school is remembered for *Regimen Sanitatis Salernitanum*, or the Salerno Book of Health. First printed in 1484 and regularly reprinted in various forms, this influential poem, in Latin, set forth the Salernian rules for hygiene and medical treatment. The text, in rhyme, is filled with practical suggestions for maintaining health, at a time when medicine was largely ineffective in curing illness.

The National Library of Medicine has created an online exhibit of its collection of Salernian manuscripts at:

http://www.nlm.nih.gov/hmd/medieval/salerno.html

## Botanicals ...

The first printed herbals, as well as other texts in medicine, science, literature and the arts appeared after the invention of the printing press by Gutenberg (about 1450) and relied on ancient authors for texts. The accessibility and standardization of these works perpetuated the influence of these venerable authors. The most famous in *materia medica* was the Greek, Dioscorides, who lived at the beginning of the Common Era, circa 60.

His medicinal plants formed the basis of modern botany, establishing the link between botany and medicine, and giving rise to the herbal.

prete MARCELLO VIRGI BIBAION scripferunt, conabimun κενήμ,μή θ άλογομ re, no uano nec fine ratioe studio idem hoc ne αι πρός τίω A πίω πραγματεί gotiű fuscepisse: propterea queor ali rem no בים דיים אל מנילוי, עול דר האפטוו ניטו, דיים absoluerűt alii ex historia plurima tradiderűt. ορίας τὰ πλές α ἀναγεά ψαι. Ιόλας Κλ Bithynus figde Iolas & Taretinus Heraclides, ห้อ ผิงของ พุ มอบางเป็นจุ อารีสบากอง เกาอง relicta penitus herbandoctrina, tantifp in hac γου ή 4αντ ο Ναύτ ποας ματείας, των Βοτανι re occupatí funt. Nec metallicose odorameto-κών παντιλώς έσσαντις πβάνοσημον μέν, ο φ- rűgy omnes meminerüt. Herbarius præterea Crateias & Andreas medicus (hi enim cæteris κραπίας δε δρίζοτόμος, κ) Ανθγέας δ'ιατρός. omnibus diligétius hac parté tractaffe uident) Obre ed Oκουστρακει Bes Jon The λοιπορρποι utiliffimas radices multas, herbascy aliquas in τον το μέρος ανεςτάφθαι, το λλάς είζας είχενdescriptas reliquerur. Veruntu pro antiquiori bus testandu illud est, in paucis quæ tradita ab eisfuerűt, åd exactű erat, eostradidiffe. Iunio-ribus aŭtnequag affentiendu, ex quon nuero Tyleus Baffus eft, Niceratus, Petronius, Niger θετέου. διρόξη Βάστος ο τυλαΐος, κη Νικοίρατ , qs & Diodotus, Asclepiadæ omnes, qui comuηπετρώνιος Νίγες τε Ελίοδοτς, άσκλκπιάnë notaq omibus, Xin uitæ humanæ ufu quorainavna, ວິເາປນ ຄົ້າ ກລັດເດ ເປັນກຸດການງານ tidianā materiā exacta descriptione dignā exi μομυλίω, εξίωσαν επί προτράνα γεαρμο άκοι frimates, medicas remedione uires, & probatio ig. τας δε τ φαρμάκων δυνάμες νη δοκιμα nesin decurfu tradider utino experietia remui ίας θε επιθ γομής πρίθοσαμ, οι τη πείρα των res. probationes & efficació metietes, sed uano υτεγγαρο νικέμεριο) σοιμασίας αυθ κανονί de causis sermone, usquad cotentionis tumoré της. τη θε τ αιτίας κομοφωνίας είς συχκομον ubig reextolleres, & alia pro alia aliquidescri αροράς εκατορ αὐτ ἀναρέροντε μετά τη άλ bētes: Siquide qui inter eos excellere Niger ui λα άντ'ά λλωμάνα γεάρξη, διούμ διαπεκτής δο det, euphorbiú ait oleastelli herbæ in Italia na C είναι ζυ αθείς Νίγη, το εὐφός βιομφωσίμοτου fcetis, liquore: & androsemon eande hyperico αι χαμελαίας, χυνομινής ζώ ταλία. Θτο effe; Saloem in Iudea foffile nasci. Pluragalia ου, ταυτρύπας χιμυποκο. αλόω his fimilia, loge à veritate fallog exposuit que Spinowaia Aviaof. w ana pipie omniaeius hominis indicia funt, qui no prafenti infpectioe & oculatus iudex, fed ex hifto รัสษ์อุธีรา สมมมัญเลงทีม สมัยปูเลง ลักลีร์ อัน 🦖 ria aliorung traditioibus ea docuerit. Peccaue மாகமும்கும் நிறையேக் அமையை மாகம் நாகும் காழ் நாகும் பார்க்க பார்க்க காழ்க்க காழக்க காழ்க்க காழக்க காழக்க காழக்க காழ்க்க காழக்க காரக்க கார μοι μασυμφύλλες δωάμες συγκερίσω disconveniret : alnex literare ordine deinceps ne, કોર્ગ પ્રીકાજ રીવ તેમવાજુર્ય મુખાવ . ગાંચી આદવા describétes, generaly & potestates eou à côge કે અમજાપાલાલ, નર્લામ ભૂખિમાં નાલે લુંબી મુનાવાલ હોઈ, neribus suis nó ob alia sanc causam dissungen ம் சிம் சும்வையாகும் விசா சில்வி. க்கழ் மீழ் tes, quam utfacilius eor meminifset. Nos aut ອີກຸກຄາກອີກ, ຄະ ກາງພ້າກອຸ ທານແລຊ ຜູ້ການແກ່ວຸກ ໃນພະ à prima ferè iuu etute indefesso quoda cogno-

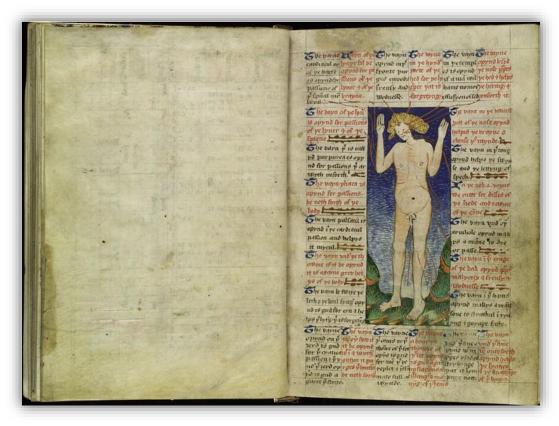
It was the medieval physician's duty to fear God and know his Dioscorides!

The term 'botany' is coined from Dioscorides, who used the Greek term *botane*, meaning herb.

Modern pharmacology stems from his attempts to systematize medicinal plant knowledge.

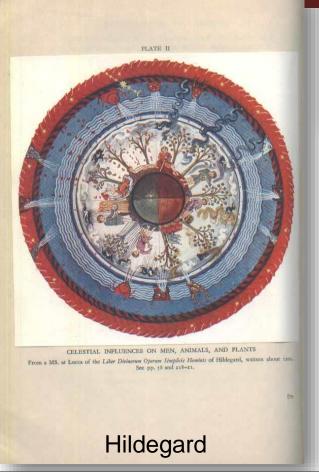
His text De medica materia was published in 1529 by Joannes Soter, though originally compiled circa 60 AD. The text, in parallel columns in Greek and Latin, is based on GALTER the 1518 edition published by Aldius Mantius [Medical Rare Book 615.1]

#### **Medieval Western Medicine**



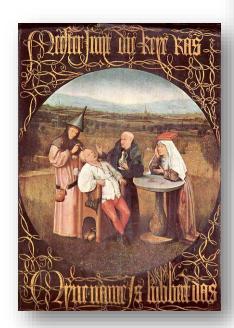


#### **Medieval Medicine**





Bosch





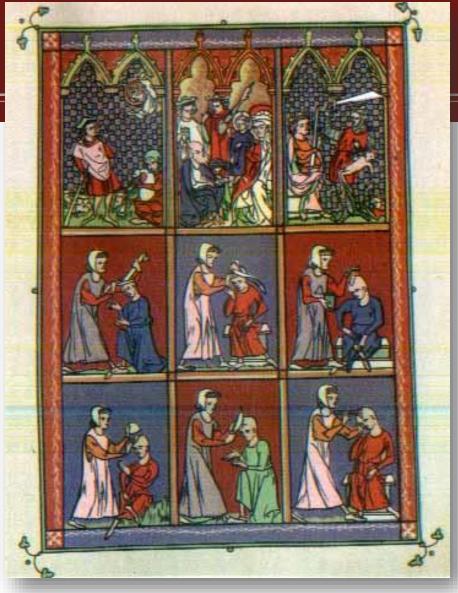
Guido da Vigivano

#### **Medieval Medicine**



Sts. Cosmas & Damian





Manuscript depicting healing

# **Early Herbals**

2000 B.C. "Here, eat this root."

1000 A.D. "That root is heathen, say a prayer."

1850 A.D. "That prayer is superstition, drink this potion."

1940 A.D. "That potion is snake oil, swallow this pill."

1985 A.D. "That pill is ineffective, take this antibiotic."

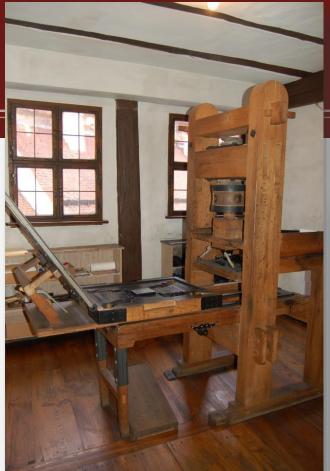
2000 A.D. "That antibiotic is artificial, here, take this root."—Anonymous

Among the Galter Special Collections rare books in *materia medica* is *Hortus* sanitatis, germanice subtitled Gart der gesundheit (Garden of health) dating from 1515. [Medical Rare Book 615 H78] Originally published in 1485, *Hortus* sanitatis in its many editions and translations, was the most popular and influential herbal of its time, serving as an encyclopedia of the plant, animal and mineral kingdoms and the medical applications of their products. The Library's German language edition is

The Library's German language edition is filled with quaint hand-colored woodcuts depicting life in the late Middle Ages and early Renaissance period.

This text was printed by Renatus [Reinhard] Beck in Strasbourg (Alsace).





# Gutenberg Press circa 1440





### Hortus sanitatis, germanice 1515



# Guy de Chauliac ca. 1300-1368





ut rini ad fote ut nidebie et bec ofa füt dieta fa ferentia. Buice.de nirtu tibus afalibus, Etlicet fa fententia Da.et. Briabi tatu fit fenfus cois q dinersimode pot dici z fantasia et t maginatio ut alias declarani. Et ex bis possit patere iunameta bui? ue triculi quia iunameta fut ut imacia tioni l'fantalie et fenfui coi defuiat z ut oibus fensitiuis fine orgais fe fun tribuat fpus aiale ut fentiant et er bis apparet nocumeta que in bo netrículo z cerebro anteriori cótin gut.quia i eo poffet oes egritudies fieri folo cotinuitatio mala coplexio que fi fint in paniculo dolore cant ? fi totů circudat paniculu uocať oun fi media pte emigranea.pot et pati egritudine qy e apa et fi fit inpanicit lis calida no catur syrlen of frequer cotingit fi fit frigidi nocat litragia si uero sit î sa cerebi pessimă est et mortifeză. 2 pot pati egritudine co-ponale que si est oppilas non extoto aut eft substatia uaporasa z fic eft uertigo et scotomia aut est bumo ralisz sic est stupor paralisis z bui? modi. si si oppilas ex toto aut oppilat uentriculos a som simul aus uentriculos tatu. fi uetriculos 2 fub ftatia fic eft apoplefia. si uétriculos tatu fic eft epilefia.ueru eft o bec oppilatio est oppilans uentriculos alios siue occupas licet non tatu qu tu anteriore. Delia uero eft de ge nere male coplexionis ante aut qua procedas ad uetriculumedia cofio ra intermedia inter buc et medin et für tria anche q füt ficut bafie buiuf modi anteriorio uentriculi dextri et finistri z substantia cerebri ad formas 7 figura anchaz 7 a latere uni? eniufg intra uetriculos iam dictos fba una zu.fan cuinea facta ad moz

taligamentio a neruulio alterutrinque que ad fai el ogationem coftrin git z claudit anchas z nia fine traff tu ab anteriori ad mediu z ecôtra et quado bomo unit ceffare a fut cogi tatioe e colideratoe eleuat parietes z dilatat achae ut poffit fpue trafir ex uno uétriculo ad alíos z ió uoca tur uerie tum quia affimilat uermi ibterranco i fubitatia 2 figura ? et i motu cotractino z extéfino.post ba descède iferins paulatine 2 primo tibi occurret lacuna que é quedam cocauitas rotuda z obloga in cuins medio é foramé tendés ifer l'ad palatu diagonal's eidem occurrit nia directa que a medio nétriculo ofcen dit directe ad colatoriu et beclacuna cuiuscuq eminentias babetro tundas magnas factas ad fuftentan du uenas uel arterias ad ascendedu a recte mirabili ad uentriculos cere bri dictos et ideo in basi eine appa rent glandule que funt iuxta rete mi rabile eminentes et per iftag lacuna uentriculi anteriores et cerebru qua tus ad medius eiuf expurgant fuas fuperfluitates.f3 cezebrus quantu ad partes anteriores magis expurget fuas fuperfluitates. per colatoria narius .Et bis expeditis statim tibi apparet uentriculus medius qui est ficut quedam uia et transitus ab an teriori ad posteriorem partem et i isto locata est uirtus cogitiatus et merito qu bec êtus operat coponé do fataliata z memorata ut ex lesaf eliciat no fesata. Ité qu ipsa e uirt? regitiua toti? aialio.regime aut toti us aialio coliftit i appbelioe pletin memoria pteritoz pnosticatione futuroz.et ideo debuit effe i medio baz uirtutum apprebenfiuarū et in

ttermis oblogi fine fubterranei liga

## Pietro d'Argellata, d. 1423

Chirurgia Cirurgia magistri Petri de argelata. Uenetijs : [Printer of Argellata, "Chirurgia" 1499 die 12 Septembris]

This treatise on surgery by **Pietro d'Argellata** was first printed in 1480. The text was derived mainly from earlier authorities but it does also contain much that was based on d'Argellata's personal experience and observations. D'Argellata was chosen to perform the *post mortem* on Pope Alexander V (d. 1410), when poisoning was suspected.

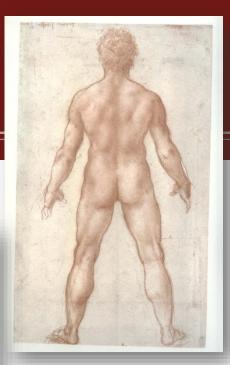
Argellata was Professor of Medicine at Bologna.



#### Leonardo da Vinci











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# Bibliography ...

Western medical tradition: 800 B.C.-1800 A.D. / members of the Academic Unit, the Wellcome Institute for the History of Medicine, London: Lawrence I. Conrad ... [et al.]. Cambridge, Eng.; New York: Cambridge University Press, c1995. *Temporary Location* Galter Health Sciences Library: Special Collections WZ 40 W5274 1995

Western medical tradition, 1800 to 2000 / W. F. Bynum ... [et al.]. New York, NY: Cambridge University Press, 2006. *Temporary Location* Galter Health Sciences Library: Special Collections WZ 59 W527 2006

Storia della medicina / Arturo Castiglioni. Edition: Nuova ed., riveduta e ampliata. Milano: A. Mondadori, c1936. Galter Health Sciences Library: Special Collections WZ 40 C351s 1936



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