Prof. Crhistina Filli told me about your interest in my work on the beginning of vaccination and so I would like to inform you that the first scientific application of the vaccination as a preventive method for diseases was applied by the Greek Physicians Emmanuel Timonis (1669-1720) from Chios island and Jacob Pylarinos (1659-1718) from Kefallonia island, who had studied medicine at the Universities of Italy. The results of their scientific application of the vaccination were published in the English well known journal (Fig. 1) «PHILOSOPHICAL TRANSACTIONS», vol. 29, 1714-1716, pg. 72-82, titled (Fig. 2) «An account or History of the Procuring the SMALL POX by Incision or Inoculation; as it has for some time been practiced at Constantinople. Being the Extract of a Letter from Emanuel Timonius, Oxon. & Patav. M.D.SR.S. dated at Constantinople, December, 1713. Communicated to the Royal Society by John Woodward, M.D. Profes. Md. Gresh. And S.R.S», and pg. 393-399 titled (Fig. 3) «Nova et tuta Variolas excitandi per Transolantationem Methodus, nuper inventa et in usum tracta: Per Jacobum Pylarinum, Venetum M.D. et Peripublicae Venetae apud Smyrnenses nuper Consulem».

After its publication in the journal «Philosophical Transactions» and Lady Mary Wortley Montagu's (Fig. 4) contribution of diffusion of the vaccination against smallpox, whose children had been vaccinated by Dr. Timonis in Constantinople, that method of vaccination was applied in Europe with good results.

It is interesting to remark that Timonius and Pylarinus' works were published during a Smallpox epidemic by Dr. Zabriel Boylston in Boston 1721 (Fig. 5a –5b).

In the significant French Encyclopédie of Diderot and D' Alembert, (Fig. 6) which started publishing in 1751, under the entry **«inoculation»** (vol. 8, p. 755 and on) both Timonis and Pylarinos are mentioned. Also Adamantios Corais in the French edition William Black's History of Medicine (Esquisse d' un Histoire de la Medicine..., Paris 1798, pp. 361 and on) (Fig. 7) considers them as the introducers of inoculation, as also, they are mentioned in the book of J.M. Moreau, Traite Historique et Pratique de la Vaccine, Paris 1801, p.102.

In addition it is further mentioned, in the book of Leslie T. Morton and Robert J. Moore, A Chronology of Medicine and Related Sciences, Ashgate, reprinted in 1998, pg. 67 and 68 (Fig. 8) characteristically emphasized: «1714. Inoculation against smallpox, as practised in Constantinople, described by Emanuele Timoni» and «1715. Giacomo Pylarino, 1659-1718, is accredited with the 'medical' discovery of variolation, in his Nova et tuta variolas excitandi per tranplantionem methodus he described its practise in Constantinople».

Also in the book of Jeremy M. Norman (ed.), Morton's Medical Bibliography, fifth edition, Scolar Press, England, 1991, p. 838, (Fig 9a-9b) stressed that Pylarinos is thought as the first immunologist: **«He is accredited with the ''medical'' discovery of variolation and thus is the first immunologist».** 

It is pointed out that Timonis and Pylarinos' method of vaccination (variolation) of 1714 for smallpox's protection after a few decades, in 1798, was **modified** by Dr. Edward Jenner (Fig. 10). He took the liquid for vaccination of children not from smallpox infected men's vesicle, as the introducers of vaccination Timonis and Pylarinos applied, but from cowpox's vesicles and his method had better results.

However the first scientific application of the vaccination as a protection method against diseases belongs to the Greek physicians Emanuel Timonis and Jacob Pylarinos, who is considered as the first immunologist.

Having provided you with the above references I strongly feel that the Greek doctors Timonis and Pylarinos should be mentioned as the introducers of the scientific practice of vaccination for the protection from infectious diseases.

Yours sincerely

Dr. Dem. Karaberopoulos, PhD President of the Hellenic Society on the History of Pediatrics

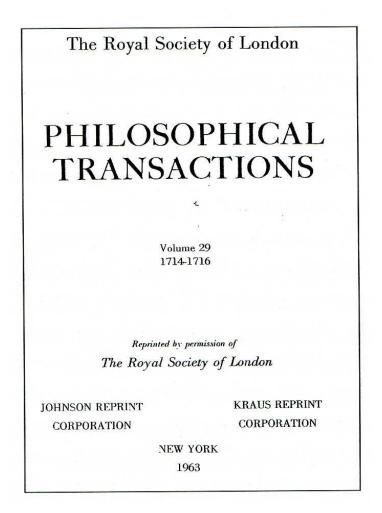


Fig. 1

(72)

. An Account, or Hillory, of the Procuring the SMALL POX by Incifion, or Inoculation; as it has for some time been practified at Constantinople.

Being the Extrast of a Letter from Emanuel Timonius, Oxon. & Patav. M. D. S. R. S. dated at Constantinople, December, 1713.

Communicated to the Royal Society by John Woodward, M. D. Profef. Med. Grefk. and S. R. S.

HE Writer of this ingenious Difcourfe observes, in the first place, that the Circuffium, Georgiams, and other Afairieks, have introduced this Practice of procuring the Small-Pex by a foot of inoculation, for about the space of forty Years, among the Turks and others at Conflunti-

of forty Years, among the Turks and others at Conflaminople.

That altho' at first the more prudent were very cautions in the use of this Praclice; yet the happy Success it has been found to have in thousands of Subjects for these eight Years past, has now put it out of all suspicion and doubt; since the Operation having been performed on Persons of all Ages, Sexes, and different Temperaments, and even in the worlt Constitution of the Air, yet none have been found to die of the Small-Pax; when at the same time it was very mortal when it seized the Patient the common way, of which half the affected dy'd. This he attests upon his own Observation.

Next he observes, they that have this Inoculation practified upon them, are subject to very slight Symptoms, some being scarce sensible they are ill or sick; and what is

Fig. 2

THE LIFE OF

## Lady Mary Wortley Montagu

ROBERT HALSBAND

OXFORD

At the Clarendon Press

1956

Fig. 4

## ( 393 )

H. Nova & tuta Variolas excitandi per Transplantatinorm Methodus, nuper inventa & in ufun trasta:
Per Jacobum Pylarinum, Venetum, M. D. &
Reipublicæ Venetæ apud Smyrnenses nuper Con-

Fig. 3

Some ACCOUNT Of what is said of Inoculating or Transplanting THE Small Pox. By the Learned D. Emmanuel Timonius, AND Jacobus Pylarinus. With some Remarks thereon. To which are added, A Few Quæries in Answer to the Scruples of many about the Lawfulness of this Method. Published by Dr. Zabdiel Boylston. Boston: Sold by S. Gerrish, at his Shop in Corn-Hill. 1721.

In-8° de 1 feuillet + 22 pages. Rarissime.

Bibliothèque du Musée britannique : 1174. d. 46(4).

Fig. 5a

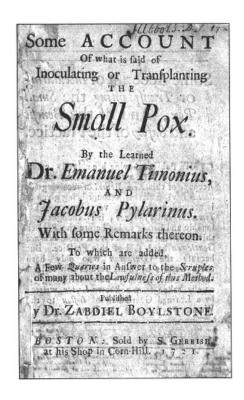


Fig. 5b

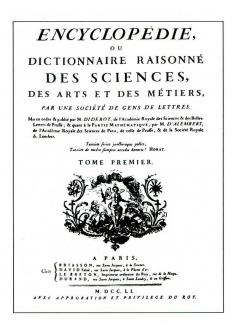


Fig. 6

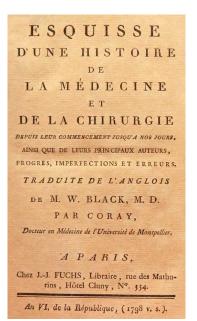


Fig. 7

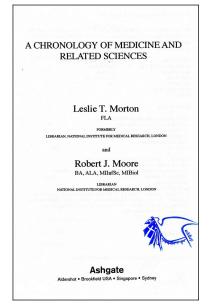


Fig. 8

## Morton's Medical Bibliography

An Annotated Check-list of Texts Illustrating the History of Medicine (Garrison and Morton)

Edited by Jeremy M. Norman

FIFTH EDITION

Scolar Press

Pl. 9a

## COMMUNICABLE DISEASES

The first medical description of smallpox was written by Rhazes, about the year 910. The above work is the first edition of the Arabic text with a parallel Latin translation by the English pharmacist and scholar, John Channing, concerning whom see E. Savage-Smith, John Channing: Eighteencentury apothecary and arabist. *Pharmacy in history*, 1988, **30**, 63-80. For an English translation see *Med. Classics*, 1939, **4**, 22-84. A translation was also published by the Sydenham Society, 1848. See Nos. 2527 & 5441.

- VOLLGNAD, Heinrich. 1634-1682 Globus vitulinus. *Misc. Curiosa sive Ephem. nat. cur.*, Jenae, 1671, **2**, 181-82. First authentic report on variolation.
- THACHER, THOMAS. 1620-1678

  A brief rule to guide the common-people of New-England how to order themselves and theirs in the small pocks, or measels. Boston, *J. Foster*, 1677 [i.e. 1678].

Broadside. The first medical publication of North America and the only one to appear in the 17th century. The sheet was reprinted, with a bibliographical and biographical study, in *Bibliotheca Medica Americana*, Vol. 1, Baltimore, 1937.

5407 SYDENHAM, THOMAS. 1624-1689
Observationes medicae circa morborum acutorum historiam et curationem.
Ed. quarta. Londini, *G. Kettilby*, 1685.

Contains (Book 3, Cap. 2; Book 5, Cap. 4) an important account of smallpox, particularly the epidemics of 1667-69 and 1674-75. Sydenham attributed smallpox to a specific inflammation of the blood; he clearly distinguished it from measles. His treatment of fevers with fresh air and cooling drinks was an improvement on the sweating methods previously employed. English translation in his *Works*, ed. R. G. Latham, London, 1848, **1**, 123, 219.

TIMONI, EMANUELE. *d.* 1718

An account, or history, of the procuring of the smallpox by incision or inoculation, as it has for some time been practised at Constantinople. *Phil. Trans.*, 1714-16, **29**, 72-82.

A letter dated December, 1713 from Timoni of Constantinople to John Woodward and read to the Royal Society in May, 1714 described the practice in that city of inoculation against smallpox. The letter aroused interest in inoculation in England. A fellow of the Royal Society since 1703, Timoni was the first to write on this subject for Western physicians, although Pylarini's researches had commenced in 1701.

- PILARINO, GIACOMO [PYLARINI]. 1659-1718

  Nova et tuta variolas excitandi per transplantationem methodus; nuper inventa et in usum tracta. Venetiis, *apud J. G. Hertz*, 1715.

  Inoculation was practised in ancient times. Pilarino in 1701 inoculated three children at Constantinople with smallpox virus. He is accredited with
- the "medical" discovery of variolation, and thus is the first immunologist.

  His book records his many researches on the subject.

  PILARINO GIACOMO 1659-1718
- PILARINO, GIACOMO. 1659-1718

  Nova & tuta variolas excitandi per transplantationem methodus, nuper inventa & in usum tracta. *Phil. Trans.*, 1714-16, **29**, 393-99.

**INQUIRY** THE CAUSES AND EFFECTS THE VARIOLÆ VACCINÆ A DISEASE DISCOVERED IN SOME OF THE WESTERN COUNTIES OF ENGLAND, PARTICULARLY GLOUCESTERSHIRE, AND KNOWN BY THE NAME OF THE COW POX. BY EDWARD JENNER, M.D.F.R.S. & c. ---QUID NOBIS CERTIUS IPSIS SENSIBUS ESSE POTEST, QUO VERA AC FALSA NOTEMUS.

LECRETIUS. Condon: PRINTED, FOR THE AUTHOR, BY SAMPSON LOW, No. 7, BERWICK STREET, SOHO: AND SOLD BY LAW, AVE-MARIA LANE; AND MURRAY AND HIGHLEY, FLEET STREET.

Fig. 10

1798.