

Parasitic Worms: Their Role in Medicine in Modern Europe



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Why is this important?

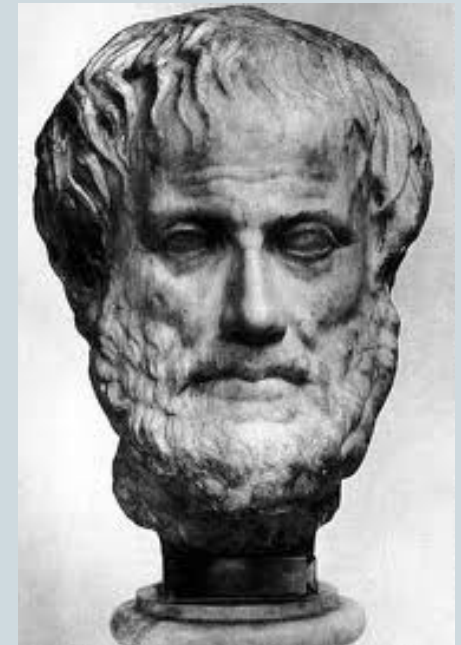
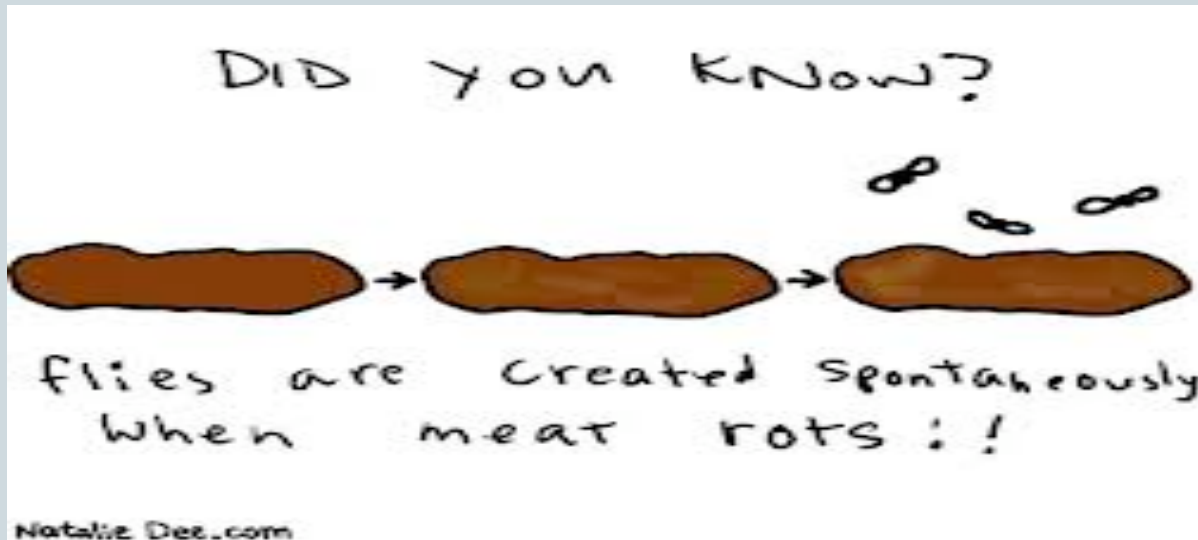


- Little is known about the role that worms played in the lives of modern Europeans.
- This research strove to combine a multitude of primary sources to shape a cohesive depiction of the role of parasitic worms in modern Europe 1700-1800.
- Eighteenth century physicians were concerned with recording the symptoms, treatments, and the demographic of individuals afflicted with worms..

Spontaneous Generation



- Natural philosophers argued that organisms generated by inanimate substances without parents VS. natural philosophers who believed that organisms arose from natural reproduction by parents of the same species.



Scientific Revolution



- Microscope played a key role in natural philosopher's ability to dissect, enlarge, and witness the life cycles of minute animals.
- Key players
 - Robert Hooke (1653-1793)
 - Antoni Van Leeuwenhoek (1632-1723)
 - Jan Swammerdam (1637-1680)
 - Francesco Redi (1626-1697)

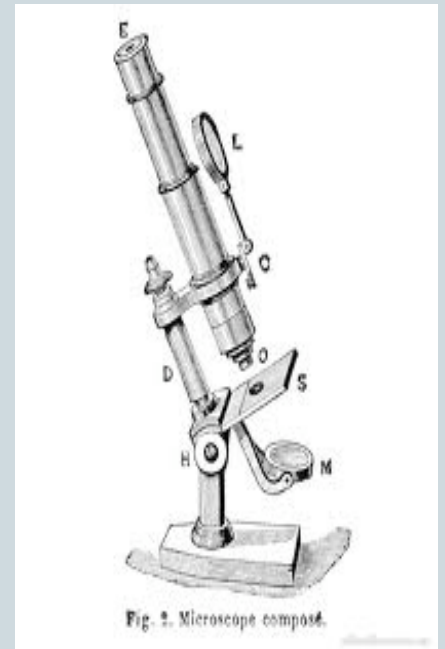
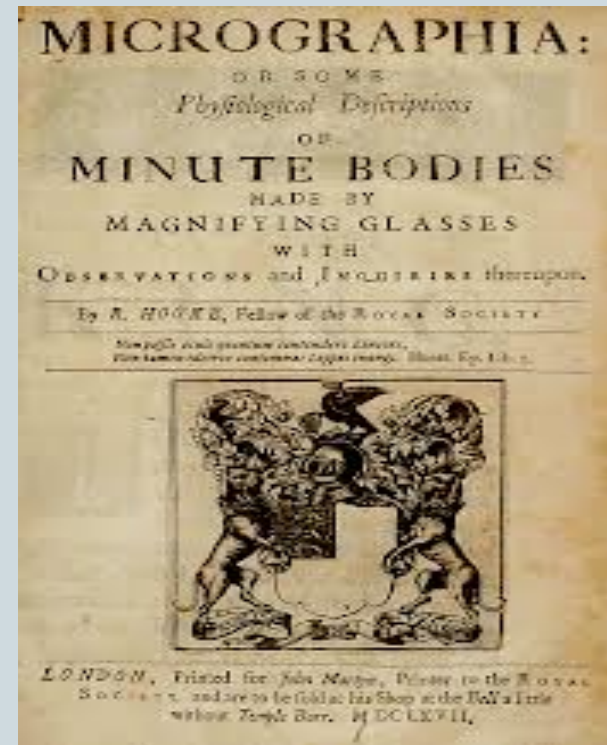
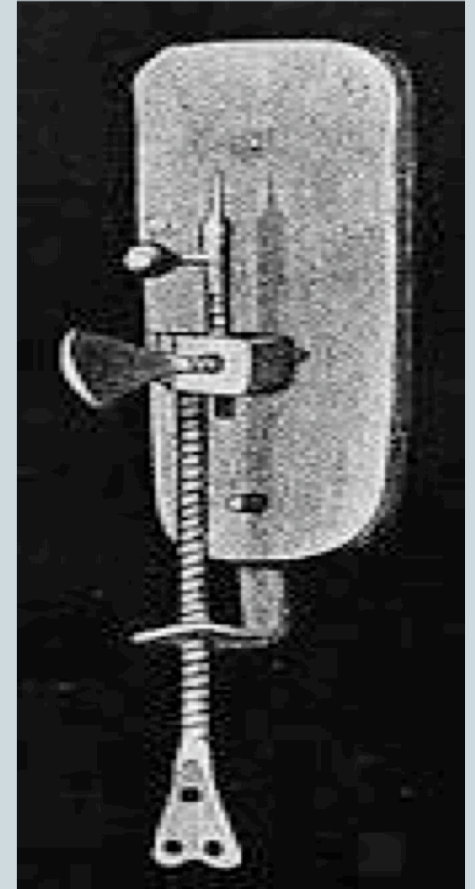
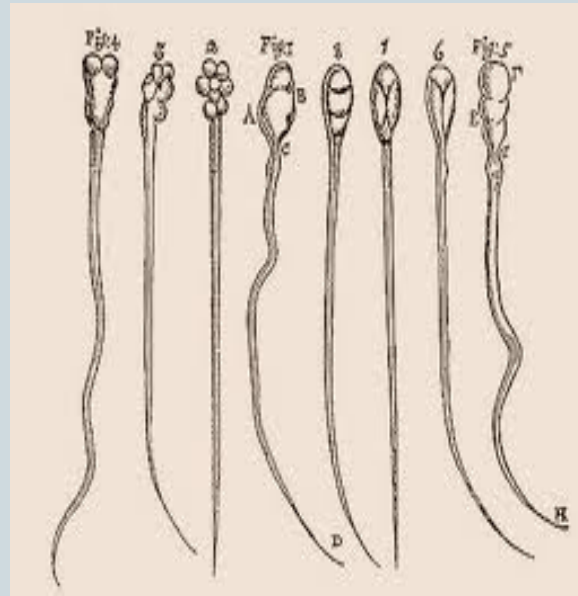


Fig. 2. Microscope compound.

Robert Hooke (1653-1793)



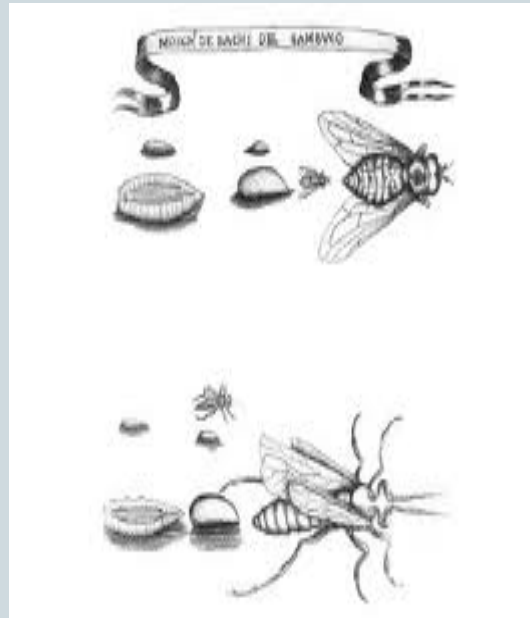
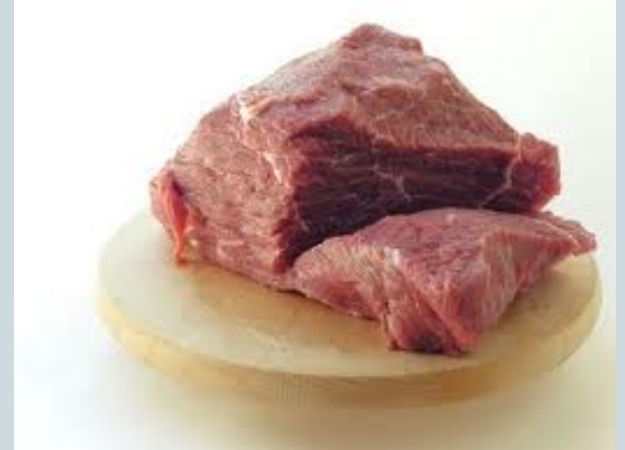
Antoni Van Leeuwenhoek (1626-1697)



Jan Swammerdam (1637-1680)

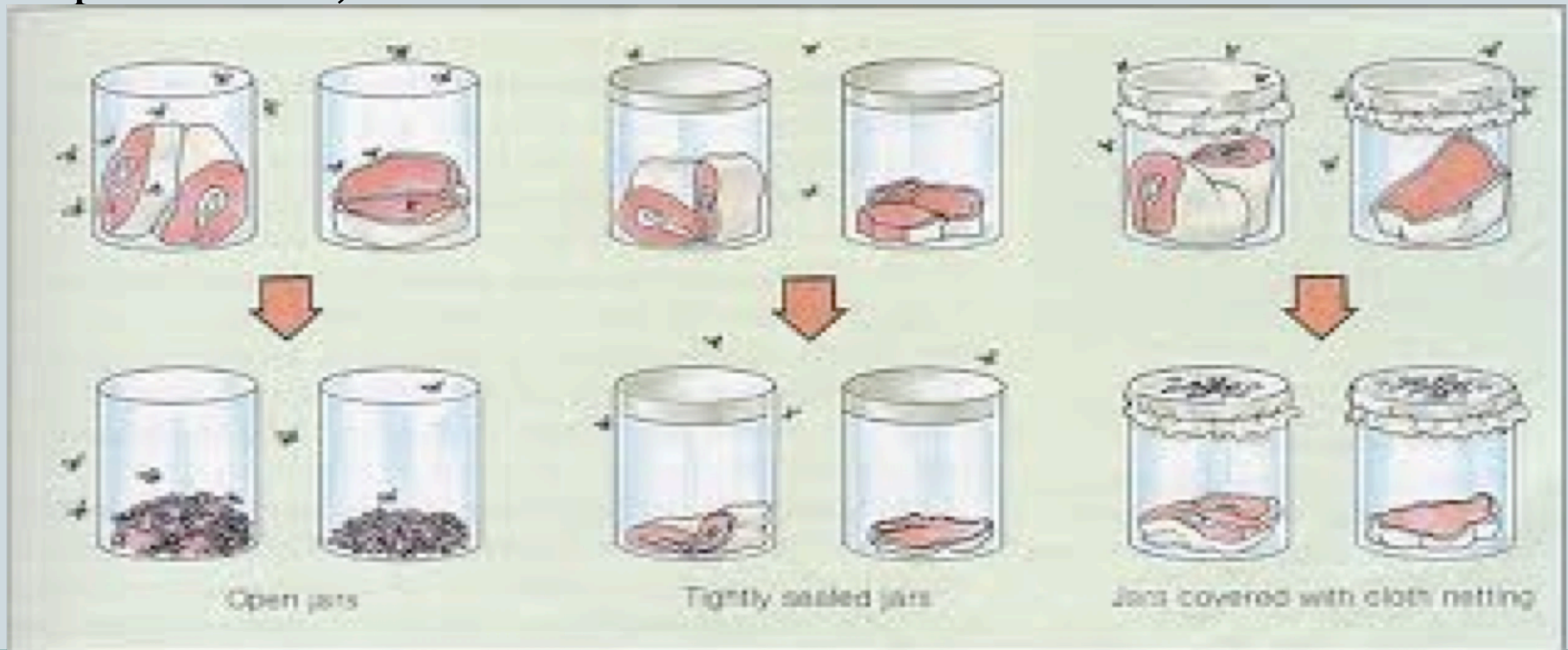


Francesco Redi (1626-1697)



Redi's Experiment

- In 1668 Redi conducted his famous jar experiment, in which Redi exposed meat to putrefy under different conditions. Redi sealed half of his test jars with gauze or parchment, and the other half he left uncovered.



Why is this important



- Natural philosopher's no longer had to focus on the how and why of how worms could get into the body.



- Caused a shift in focus towards understanding and cataloging the symptoms and treatments of worm fever

Physicians



- Pseudo-Aristotle
- William Black (1749-1829)
- George Armstrong (1719-1789)
- John Arbuthnot (1667-1735)



The Last Sleep of Savonarola
Sir George Reid, P.R.S.A.

Demographic and Symptoms



- Children were most susceptible to worms



- Litany of symptoms
 - Nausea, indigestion, vomiting, acidity, flatulence, lack of appetite, diarrhea, colored stools, skin eruptions, pustules, disturbed sleep and a rapid pulse.

Treatments



- Oils and honey
- Some animal byproducts contained properties, that when ingested acted as laxatives and purgatives,
- Hartshorn powder, the ground antlers of a male red deer, was ingested to decrease diarrhea.
- Calomel, a mercury (I) chloride compound, was a common purgative.
- Herbs that calmed the symptoms associated with worms

Grief and Alternative medicine



- **Childhood mortality**
 - In London alone, children accounted for more than one third of the population's death toll.
- Many parents and children turned to God as death came. They prayed for forgiveness in the hopes that God would not take their child, and children prayed to be reunited with their parents in heaven.



Conclusions



- Eighteenth century physicians knew that worms were ingested, and did not arise spontaneously in the guts of their patients.
- Worms acted as a catch all for other diseases
- Only two ways to know if someone had worms, led to both over and under diagnosis