

The background of the entire image is a rich, dark red curtain with deep, vertical folds and subtle highlights, creating a sense of depth and texture.

OSHER
LIFELONG
LEARNING
INSTITUTE

OLLI

AT THE UNIVERSITY OF CINCINNATI

30
years



- Superintendent Cincinnati Parks
- Director Public Services
- Director of Metropolitan Sewer District

GRChecco@gmail.com



GRChecco@gmail.com



- Green Umbrella Greater Cincinnati
- Millcreek Valley Conservancy District
- Urban Forestry Advisory Board
- Charter Committee Cincinnati
- Clifton Town Meeting
- NCSU Board of Regents
- American Pilgrims of the Camino



- Chief of Staff – Councilmember David Mann

GRChecco@gmail.com



GRChecco@gmail.com

Repubblica Fiorentina



1115 - 1569



Year 1348

❖ Until a decade ago Florence, a City State, was prosperous, under a *Republica Fiorentina* as a democratic institution led by Guilds.

❖ The Banks of Florence are the dominant financial institutions in Europe.

❖ The Golden Florin of Florence is used for international transactions (like dollar now).

❖ Florence has been weakened by wars with other city states

❖ Draught, followed by floods have devastated crops leading to famine

❖ The King of England has defaulted on his loan to pay for the 100-year war with France



1415-1569



Repubblica Fiorentina

January 1348

- ❖ Florence is enjoying the warm winter sun of Tuscany
- ❖ Rumor has it that there is a very strange illness in Messina (Sicily), but it does not concern Florentines, Messina is very far away.....

February 1348

- ❖ One person get sick.
- ❖ More people get sick.

March 1348

- ❖ Florence has lost half of its population.

- ❖ Sicily will loose 80% of its population



It is just one case,
we have all under
control, it will go
away!



LA PESTE DI FIRENZE

A. L. E. M. S. J. Marchese



DAL BOCCACCIO DESCRITTA

Per Roberto Capponi

The
Great
Mortality

The Great Mortality

The Bubonic Plague

The Black Plague

A glimpse into Apocalypse



































Why?

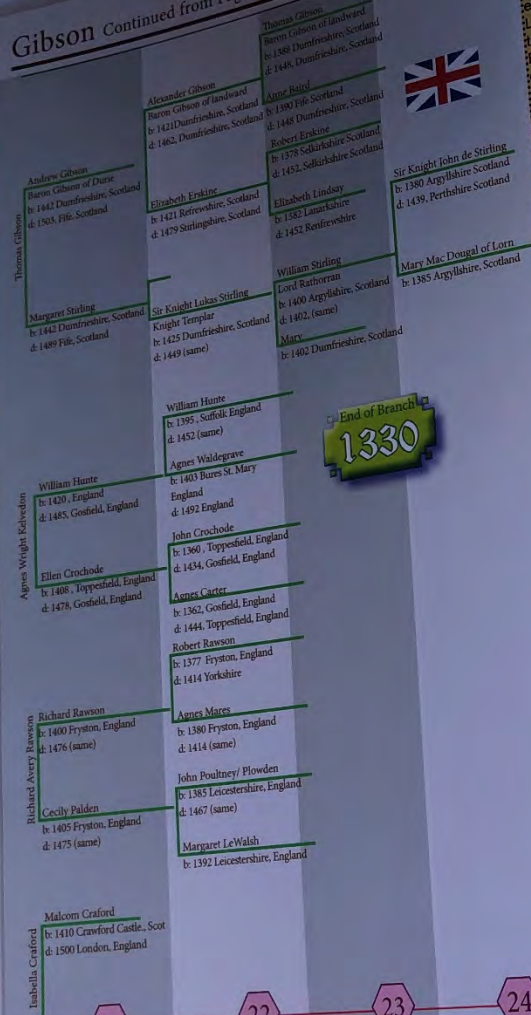
- Between 2002 and 2019, as I was working on my genealogy, I was struck by the unlikely journey of all of us to be alive now, following many generations of “survivors.”

8M+ Greatx22 Grand Parents

23 Generations ago ~1350
about 8 Million Greatx22 Grand Parents

All 8 Million Grand Parents had to survive
a Plague that killed half of Europe!

Gibson Continued from Page 31



End of Branch
1330



HISTORICAL NOTES

Roger Toothaker was born in England in 1634. In 1635, as an infant, Toothaker traveled to the Massachusetts Bay Colony from London, sailing from August 21 to September 11 on the Hopewell, led by Captain Babb. In 1638, his father, Roger Toothaker, died, possibly in Plymouth on February 5. Later that year his mother Margaret married Ralph Hill on December 21 and they lived in Billerica. He served as an assistant to Samuel Eldred, and later became a physician although he had no formal medical training. In or around 1662 or 1663, his stepfather died. In 1665 he married Mary Allin, a midwife, and had eight children who survived infancy: Nathaniel, Martha, Allin, Roger, Sarah, Mary, Andrew, and Margaret. Toothaker, a farmer and folk-healer, claimed to specialize in detecting and punishing witches. For several years before the Salem witch trials began in 1692, Toothaker had reportedly bragged to locals that he had taught his daughter, Martha Emerson, the wife of Joseph Emerson, his trade and that she had killed a witch. On May 18, 1692, Elizabeth Hubbard, Ann Putnam, Jr., and Mary Walcott accused Toothaker of witchcraft. Elizabeth was the servant of William Griggs, Toothaker's competitor. On May 28, Mary Toothaker, Margaret Toothaker (aged 9), Martha Carrier, and Elizabeth Jackson were arrested. John Willard of Salem, Thomas Farrar, Sr. (or Farrer) of Lynn, and Elizabeth Hart were arrested, along with Toothaker. Toothaker was sent to Boston Prison where he remained until his death the following month at age 57. His body was examined and it was confirmed that he died of natural causes, although it is impossible to separate his death from his imprisonment, and likely illness and/or maltreatment and/or malnourishment.

Mary Toothaker was interrogated by John Hawthorne July 30, 1692. She claimed that because of her fear of the Indians, she made a pact with the Devil for protection. It has been postulated that her confession was either coerced by torture or completely fabricated. Her fear of Indians was apparently justified. The area had been attacked by Indians, or as happened in many cases white men masquerading as Indians. Two

days after Mary's interrogation, Indians apparently attacked her and burned the Toothaker house. Her daughter were still alive at the end of January 1693. Mary Toothaker went home to their burial place. Mary Toothaker continued to be sick. Her sister Martha (Martha Carrier) was condemned and hanged on May 5, 1695. Mary Allin Toothaker's daughter Margaret was with the Indians and was never seen again.

Bailey #15

Sir John Baynton was Member of Parliament for Wiltshire of Wiltshire. Sir John Baynton was married before 1439 to the Echyngnam and they had six children. He was appointed a Commissioner to assist the Duke of York to quell the Devon riots in December 1435.

Bailey #23

Recipes

Gâteau Pépé Félix

- 2 Cups of all-purpose flour
- 2 packs (1/4 oz) of yeast
- 1 pinch salt
- 1 Cup melted butter
- 2 Cups granulated sugar
- 6 eggs



Preheat oven to 350°

Activate yeast
Mix in ¼ cup of warm water, 1 tsp sugar, 2 packs of yeast.
Let it rest for 10 minutes until the mixture foams

Separate egg whites and beat until stiff.
Mix all ingredients, including egg whites and foamed yeast

Butter cake pan
Fill cake pan with mixture
Add few pinches of sugar on top

Bake in oven for 30-40 minutes
until cooked.

Mamie Claude Taboulé



- (serves 10)
- 2 cup of Couscous
 - 2 cups of olive oil
 - Juice of 3 large lemons
 - 1/2 cup raisins
 - 1 cup cherry tomatoes, cut in half
 - 1 - 6oz can of articoke hearts diced
 - 1 - 14oz can of hearts of palm sliced
 - 1 cup of back olives, pitted and diced
 - 1 cup of chopped italian parsley
 - 1 bunch of fresh mint chopped
 - 1 red pepper diced
 - 4 large onions finely chopped
 - Salt + pepper to taste
 - 1 cup of roasted peanuts

Cook couscous and let it cool overnight
Add everything to a large salad bowl
except for the peanuts.
Let it rest for 4 hours minimum.
Add peanuts before serving

Tarte aux poires

- (serves 8)
- 1 pie crust
 - 4 large pears
 - 2 eggs
 - 2 Tbsp corn starch
 - 1/2 cup sugar
 - 4 Tbsp almond
 - 1 cup of cream
 - 2 Tbsp cognac
 - Confectioners Butter for pie

Preheat oven

Grease pie
place pie
Peel pear
seeds,
boiling
Place p
Mix o
Mix o
cogn
unt
Po

Pa

1425 Dumfriesshire, Scotland
d: 1449 (same)

Mary
b: 1402 Dumfriesshire, Scotland

William Hunte
b: 1395, Suffolk England
d: 1452 (same)

Agnes Waldegrave
b: 1403 Bures St. Mary
England
d: 1492 England

John Crochode
b: 1360, Toppesfield, England
d: 1434, Gosfield, England

Agnes Carter
b: 1362, Gosfield, England
d: 1444, Toppesfield, England

Robert Rawson
b: 1377 Fryston, England
d: 1414 Yorkshire

Agnes Mares
b: 1380 Fryston, England
d: 1414 (same)

John Poultney/ Plowden
b: 1385 Leicestershire, England
d: 1467 (same)

Margaret LeWalsh
b: 1392 Leicestershire, England

William Hunte
b: 1420, England
d: 1485, Gosfield, England

Ellen Crochode
b: 1408, Toppesfield, England
d: 1478, Gosfield, England

Richard Rawson
b: 1400 Fryston, England
d: 1476 (same)

Cecily Palden
b: 1405 Fryston, England
d: 1475 (same)

Malcom Craford
b: 1410 Crawford Castle., Scot
d: 1500 London, England

End of Branch
1330

Agnes Wright Kelcey

Richard Avery Rawson

Craford

Oct 1654
di, Messina, Sicily

ria LeFranco
out 1663
i, Messina, Sicily

o Virgona
n 1677
i, Messina, Sicily

Condi

licudi, Lipari,
na, Sicily

o Russo

pa Natoli
t 1690

no Picone
1687
Messina, Sicily
1756
Sicily

usso
y 1697
Messina, Sicily
756
Messina, Sicily

aranto
1654
cily

Franco
Messina, Sicily

Giovanni B. Taranto
b: 6 Jul 1620
Lipari, Messina, Sicily

Maria Perez
b: 22 Jun 1628
Lipari, Messina, Sicily

Giuseppe Lo Franco
b: about 1626,
Calabria
Maria Testa
b: 8 Sep 1628
Lipari, Messina, Sicily

Filippo Virgona
b: 12 Aug 1641
Alicudi, Messina, Sicily

Minerva C Paino
b: 1650
Lipari, Messina, Sicily

Giovanni B. P. Picone
b: about 1611
Filicudi, Messina,
Sicily

Domenico Blasio Russo
b: about 1665
Filicudi, Messina, Sicily
d: about 1723
Filicudi, Sicily

Caterina Testa
b: about 1667
Filicudi, Messina, Sicily

Giovanni G. Taranto
b: 1594
Cles, Trento, Trentino-
Alto Adige, Italy

Lucrezia Sicura
b: 1600
Lipari, Messina, Sicily

Bartolomeo Perez Romano
b: about 1590
Lipari, Messina, Sicily

Margarita Da Nanni
b: about 1600
Lipari, Messina, Sicily

Cesare Testa
b: about 1598
Lipari, Messina

Minicha Federico
b: about 1602
Lipari, Messina, Sicily

Placido Virgona
b: 12 Oct 1602
Salina, Messina, Sicily

Prozia Di Luca
b: 11 Jul 1610
Alicudi, Messina, Sicily

Bartolomeo Russo
b: about 1630
Filicudi, Messina,
Sicily

?? Taranto
b: about 1572
Lipari, Isle of, Italy

Andrea Sicura (Segura)
b: about 1569
Lipari, Isle of, Italy

Rica Papa
b: 1572 - 1612
Lipari, Messina, Sicily

Michele Perez
b: about 1562
Lipari, Messina, Sicily

Faustina Romano
b: about 1565
Lipari, Messina, Sicily

Francesco Virgona
b: 1571
Lipari, Messina, Sicily

Cusa Maiuri
b: 1579
Lipari, Messina, Sicily

Filippo Di Luca
b: 1579
Alicudi, Messina, Sicily

Minichella Testa
b: 1583
Alicudi, Messina, Sicily

End of Branch
1532

Giuseppe Romano Colonna
b: about 1540
Lipari, Messina, Sicily
d: 1570
Giuseppa Romano
b: about 1540
Lipari, Messina, Sicily

Tommaso Virgona
b: 1532
Lipari, Messina, Sicily

Porzia Piluso
b: 1536
Lipari, Messina, Sicily

Pulverino Maiuri
b: 1554
Alicudi, Messina, Sicily

Gnola Pilverino
b: 1554
Alicudi, Messina, Sicily



Alicudi



Lipari



Filicudi

End of Branch
1532

2
na, Sicily

a, Sicily
ano

na, Sicily

rgona

na, Sicily

ina, Sicily

Giuseppe Romano Colonna

b: about 1540

Lipari, Messina, Sicily

d: 1570

Giuseppa Romano

b: about 1540

Lipari, Messina, Sicily

Tommaso Virgona

b: 1532

Lipari, Messina, Sicily

Porzia Piluso

b: 1536

Lipari, Messina, Sicily

Pulverino Maiuri

b: 1554

Alicudi, Messina, Sicily

Gnola Pilverino

b: 1554

Alicudi, Messina, Sicily



Andy
England
Massachusetts, USA



tt
9, Salem, MA
07, Wenham,



House on Swans Island built by Ambrose N. Gott

ge
650, Rowley, MA
5, Wenham, MA

slade
lover, MA
723, Andover, MA

erson
69, Haverhill, MA
55 (same)

othaker
68, Billerica, MA
5, Haverhill, MA

kin
dham, England
08, Gloucester, MA

Thomas Greenslade
b: 25 Jun 1625, England
d: Jul 1674, Salem, MA

Ann Pudeator (Poindexter)
b: 13 Nov 1621, Devon, England
d: 22 Sep 1692, Salem, MA

Roger Toothaker
b: 27 Nov 1634, London
d: 16 Jun 1692 Salem prison

Mary Allen
b: 29 Jul 1644, Andover, MA
d: 5 Aug 1695, Andover, MA

see Historical Notes page 34

Thomas Luffkyn
b: 1590 Bildeston, England

Thomas Poindexter
b: 13 Oct 1590, Ilfracombe, Eng
d: 28 Oct 1660, England

Margaret Coke
b: 1592, England
d: 11 Aug 1660, England

Andrew Allen
b: 1585, Devon, England
d: 12 Oct 1629, Somerset, England

Faith Ingalls
b: 14 Jul 1622, Skirbeck,
England
d: 6 Oct 1690, Andover, MA

William French

Thomas Poynter

Jeanne Poynter

George Allen
b: 1585, Devon, England
d: 12 Oct 1629, Somerset, Eng

Katherine Starkes
b: 1600, Ide, England
d: 1691, Sandwich, MA

William Symmes (Rev)
b: 6 Feb 1568, Tredington, Eng

Mary Jane Prowse
Thomas Prowse
b: 1420-1479
d: 1457 - 1510
Jane Baynton
b: 1433 - 1486
d: 1457 - 1527

Agnes Brent
Margaret Curry Mallet
b: 1448, Curry Mallet,
England
d: 27 Aug 1500, Devon,
England

21

Henry Bayton
b: 1456, Falstone, England
d: 1474

Hugh Mallet
b: Jan 1399 St. Audries, England
d: Feb 1460 (same)

Joan Runyon
b: 1401, Compton Martin, England
d: 1460, St. Audries, England

22

see Historical Notes page 34

John Bayton (Sheriff of Wiltshire)
b: 1407, Falstone, England
d: 20 Jun 1465, Fallardeston., Eng

Joan De Echingham
b: 1403, Etchingham, England
d: 1473, Lutton, England

End of Branch

1399

23

Ralph Allen
b: 1554, Buckinghamshire, Eng
d: 1589, Thurcaston, England

Elisa Stokes
b: 1560, Kempston, England
d: 1588, (same)

William Symmes I (Rev)
b: 1544, Sandwich, England
d: 27 Jul 1597, Poundsford

Richardus Stokes
b: 1525, Kempston, England
d: aft 1560 *same

Mary Guye
b: 1524, Tanworth in Arden, Eng

John Patrick Symes,
b: May 1515, Barwick Manor, Somerset, England
d: 9 Apr 1563 (same)

Jane Petty Hill
b: 1509, Poundsiford, Somers-
et, England

John Guye
b: 1500, Plough Hill,
England

Mary Jane Prowse
b: 1504, Plough Hill,
England

Agnes Brent
b: 1 Jan 1479, Cossington
Manor, Sommerset, England

see Historical Notes

Mary Jane Prowse

Thomas Prowse
b: 1420-1479
d: 1457 - 1510

Jane Baynton
b: 1433 - 1486
d: 1457 - 1527

Agnes Brent

Margaret Curry Mallet
b: 1448, Curry Mallet,
England
d: 27 Aug 1500, Devon,
England

Henry Bayton

b: 1456, Falstone, England
d: 1474

Hugh Mallet

b: Jan 1399 St. Audries, England
d: Feb 1460 (same)

Joan Runyon

b: 1401, Compton Martin, England
d: 1460, St. Audries, England

John Bayton (Sheriff of Wilt)
b: 1407, Falstone, England
d: 20 Jun 1465, Fallardeston., Eng

Joan De Echingham

b: 1403, Etchingham, England
d: 1473, Lutton, England

End of Branch
1399

21

22

23



Why?

- Between 2002 and 2019, as I was working on my genealogy, I was struck by the unlikely journey of all of us to be alive now, following many generations of “survivors.”

Probability of being alive:

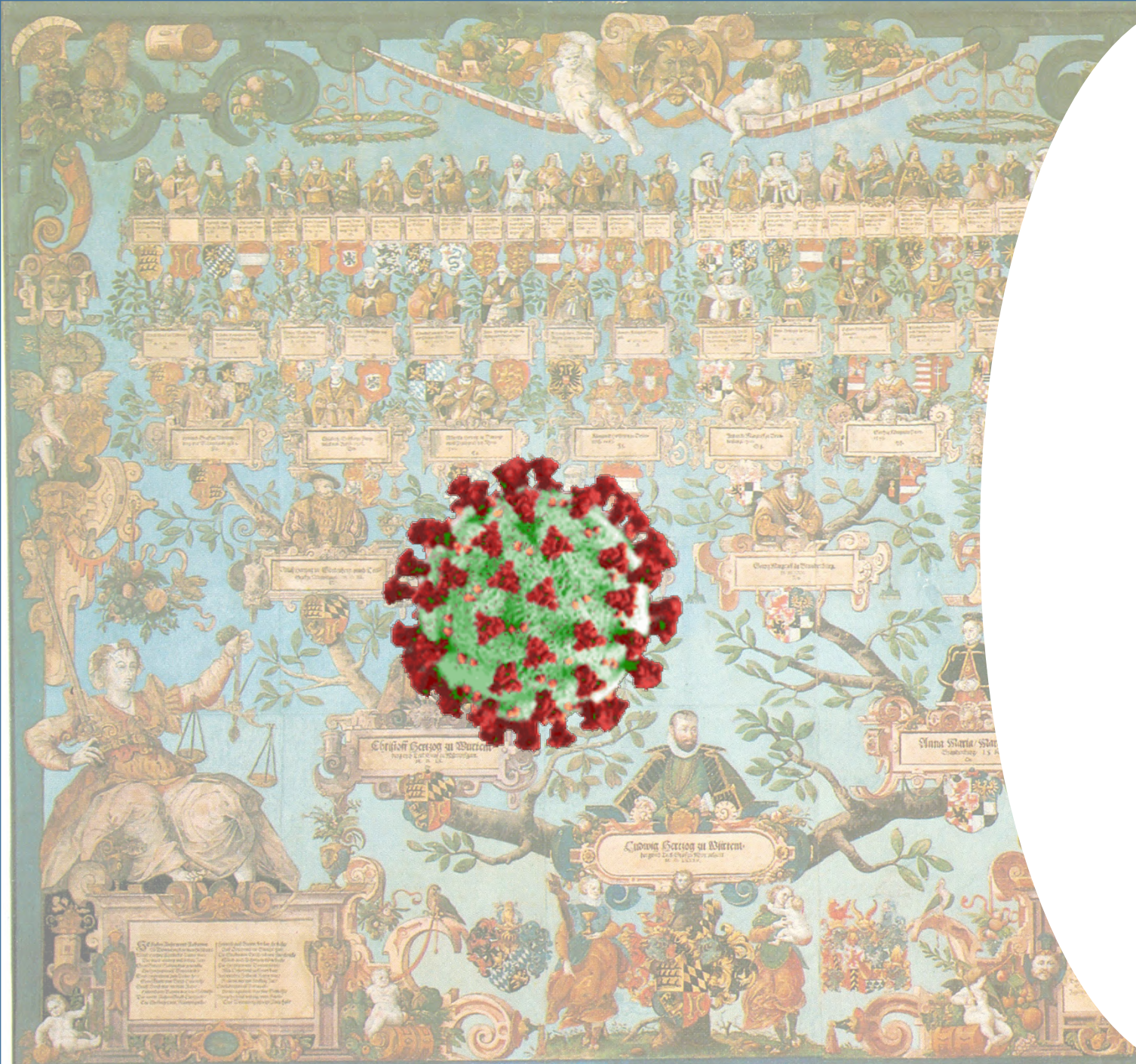
1 out of 10^{2,685,000}





You have a better chance of
winning the Mega Millions
Lottery

Every day of your life than to
be alive.



- Between 2002 and 2019, as I was working on my genealogy, I was struck by the unlikely journey of all of us to be alive now, following many generations of “survivors.”
- In 2020, as COVID was taking hold of the world, I wondered about previous pandemics.

- ❖ Pandemics in History
- ❖ From Animals to Humans
- ❖ Three Plagues in One
- ❖ Heading Toward a Disaster
- ❖ Aggravating Circumstances
- ❖ Plague Doctors and Success Stories
- ❖ Consequences and Conclusion

Pandemics in History

YEAR	Disease	Spread	Death	Vector	V/B?	
------	---------	--------	-------	--------	------	--

YEAR	Disease	Spread	Death	Vector	V/B?	
1896	Cholera	India	10,000	Food/ Drink	Bacterium	Vibrio cholerae
2013	Ebola	India	11,300	Bats	Virus	Ebolavirus (4-5)
1709	Smallpox	Iceland	18,000	Rodent (?)	Virus	Variola
1709	Plague	Austria	76,000	Rats/ Flees	Bacterium	Yersinia pestis
430BC	Typhoid	Greece	90,000	Food/ Drink	Bacterium	Salmonella Typhi
Sidebar: COVID is amongst the top ten Pandemics in the World history						
1666	Plague	England	125,000	Rats/ Flees	Bacterium	Yersinia pestis
1816	Cholera	Asia/ Europe	150,000	Food/ Drink	Bacterium	Vibrio cholerae
2009	Influenza (H1N1)	World Wide	200,000	Birds	Virus	Influenza
1631	Plague	Italy	280,000	Rats/ Flees	Bacterium	Yersinia pestis
2020	COVID19	World Wide	4,000,000 to 10,000,000	Bats?	Virus	SARS-CoV-2
1890	Influenza (H3N8)	World Wide	1,000,000	Birds	Virus	Influenza
1852	Cholera	Russia	1,100,000	Food/ Drink	Bacterium	Vibrio cholerae
1968	Influenza (H3N2)	World Wide	1,250,000	Birds	Virus	Influenza
1957	Influenza (H2N2)	World Wide	2,000,000	Birds	Virus	Influenza
180	Smallpox	Roman Empire	10,000,000	Rodent (?)	Virus	Variola
1545	Salmonella	Mexico	15,000,000	Food/ Drink	Bacterium	Salmonella

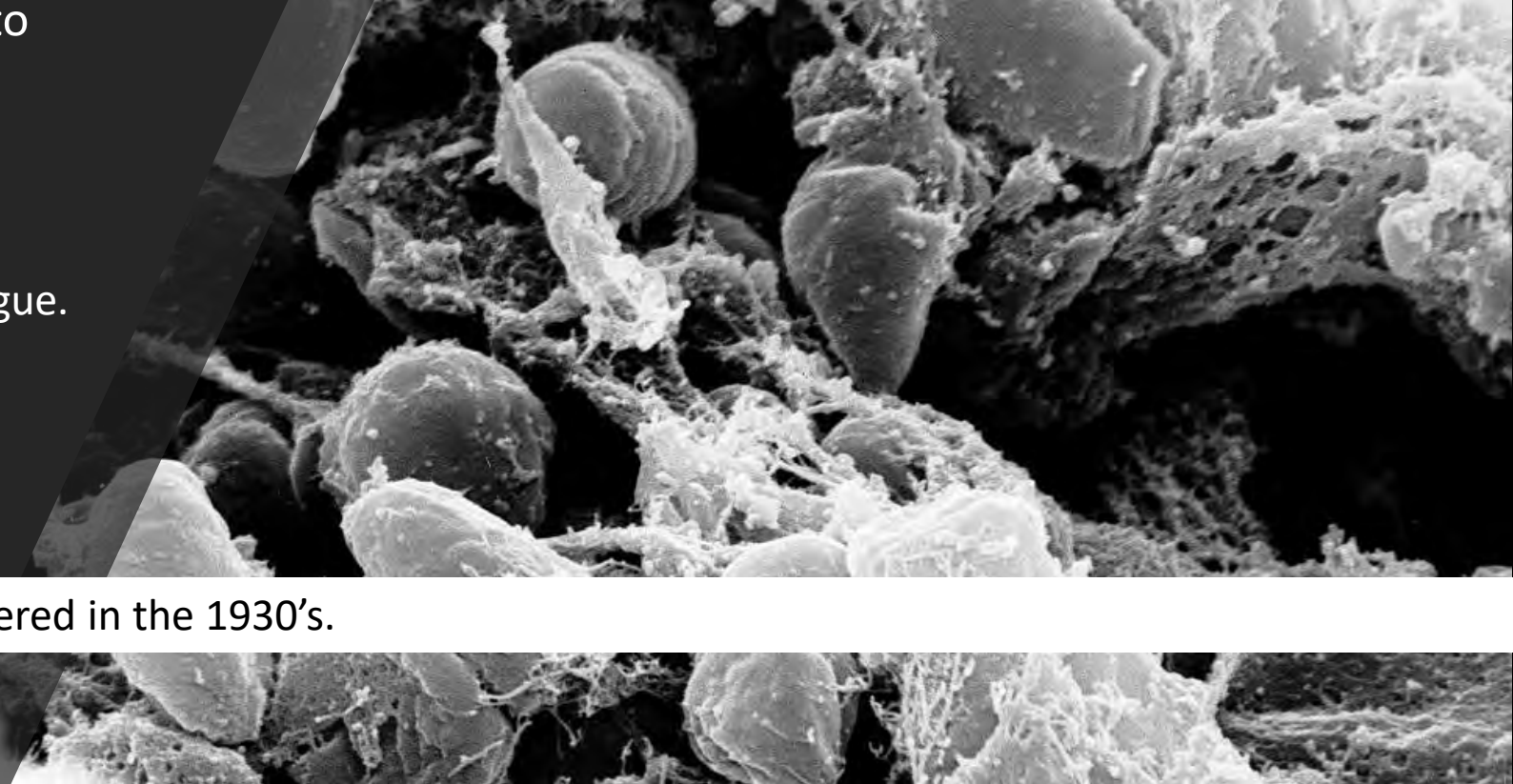
- *Y. Pestis* was identified in 1894 by Alexander Yersine a French/ Swiss/ Russian researcher at the French Pasteur Institute and Kitasato Shibasaburo, a Japanese bacteriologist.

It will take over 500 years after the “Great Mortality” to identify what caused the Plague.

Sidebar: The Influenza’s virus was only discovered in the 1930’s.



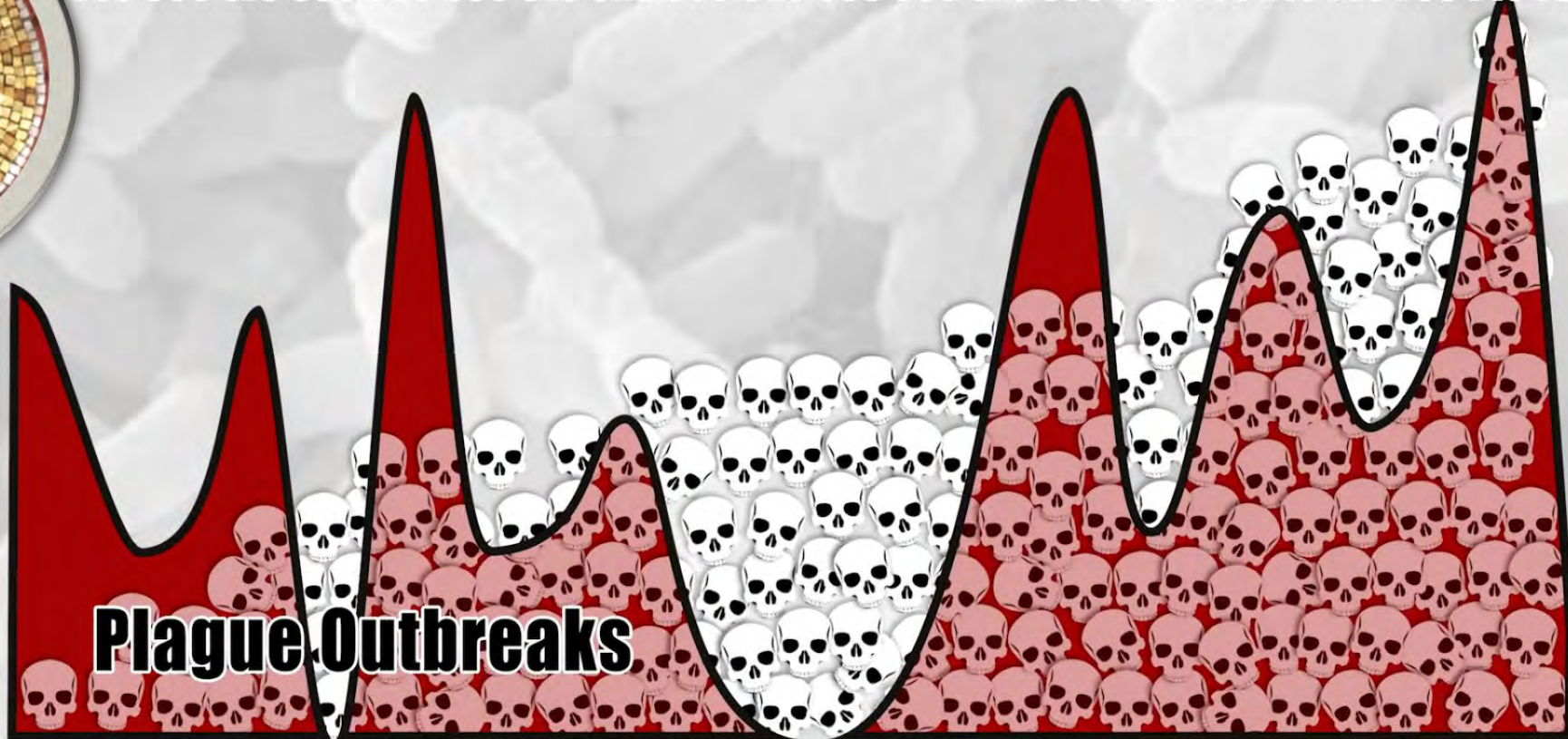
1863-1943





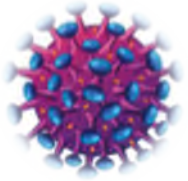
Year AD

550 560 570 580 590 600 610 620 630 640 650 660 670 680 690 700 710 720 730 740 750



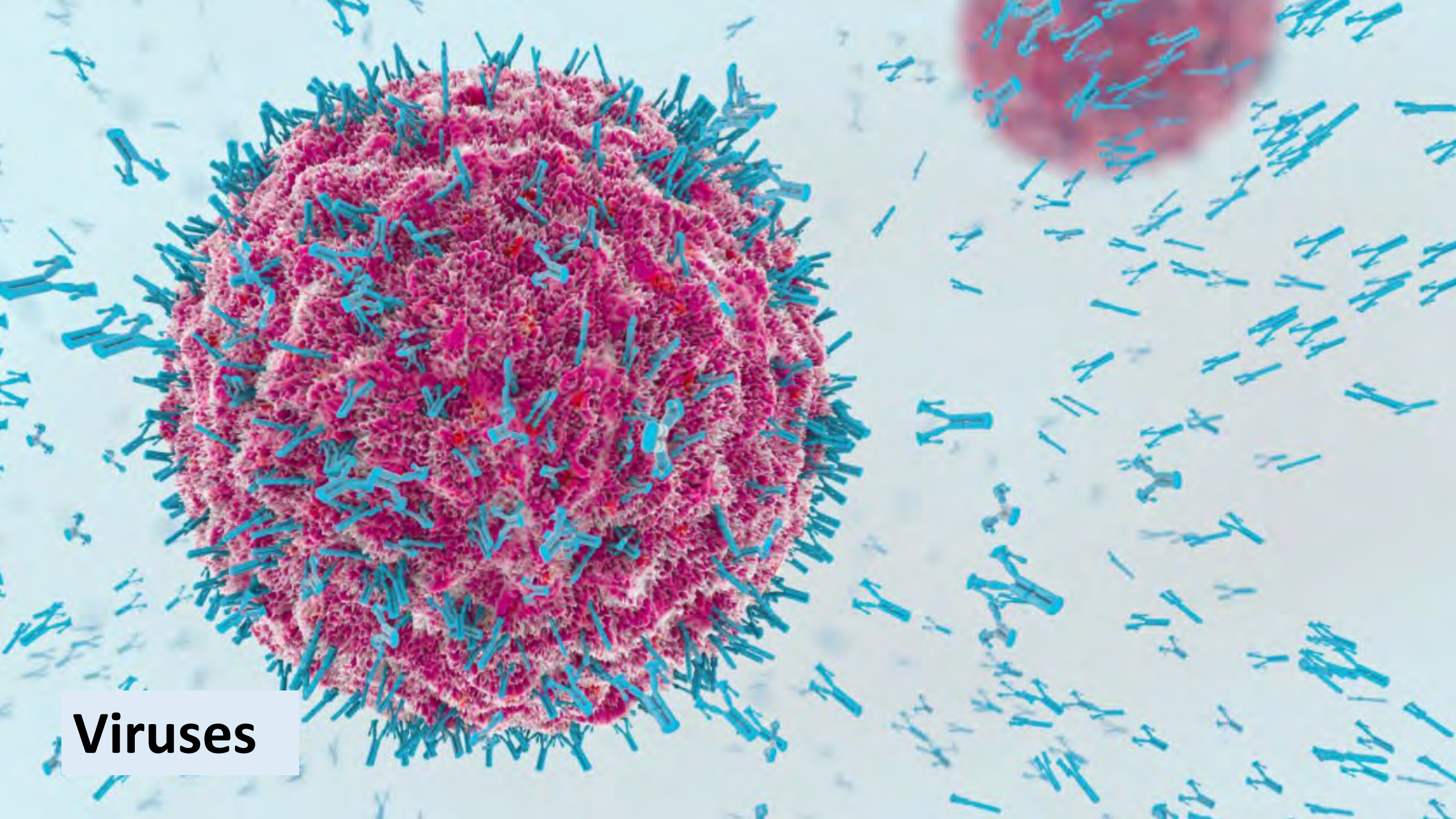
On and Off pandemic for 200 years causing 50 million deaths

Virus vs. Bacterium

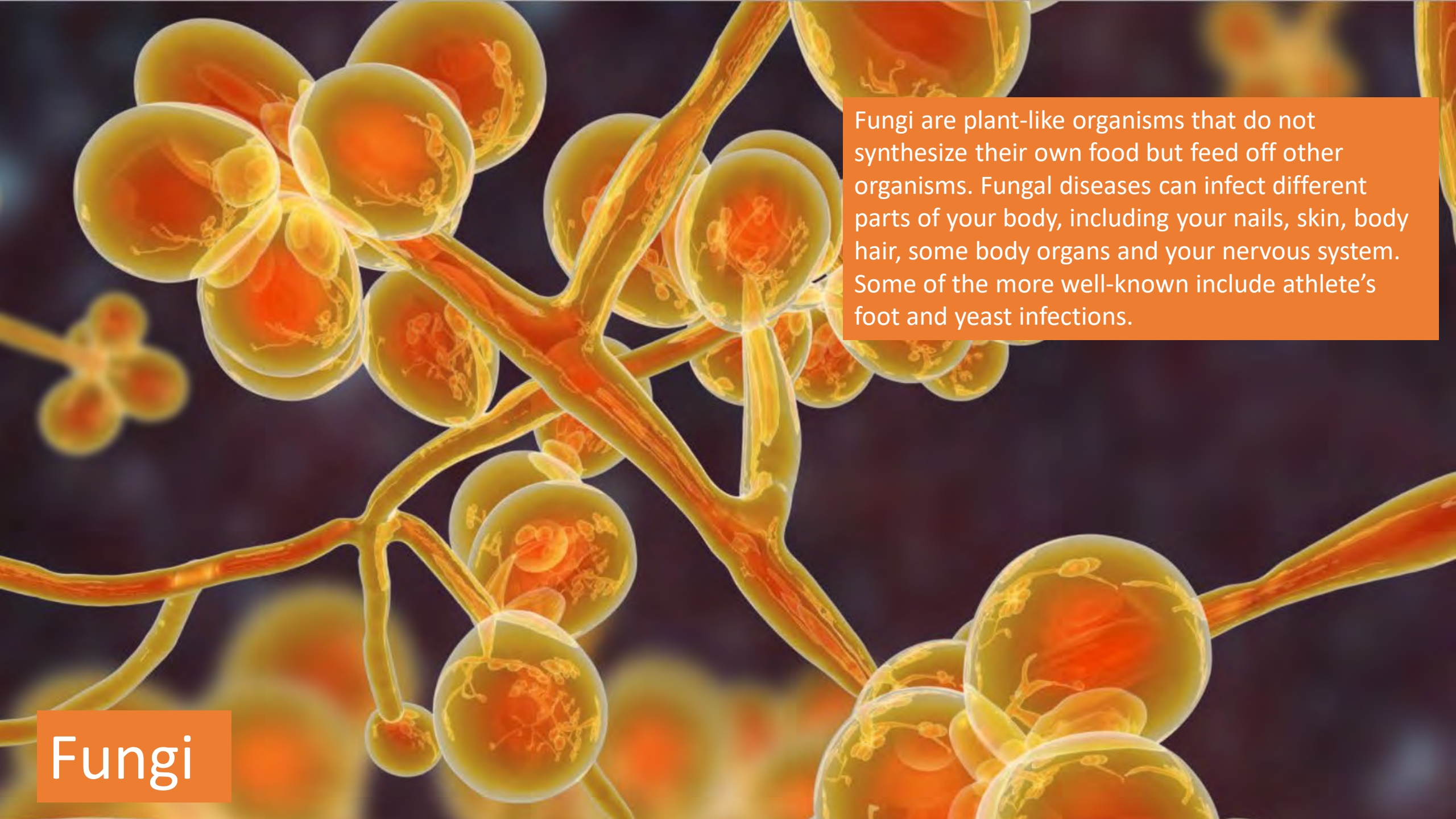




Bacteria



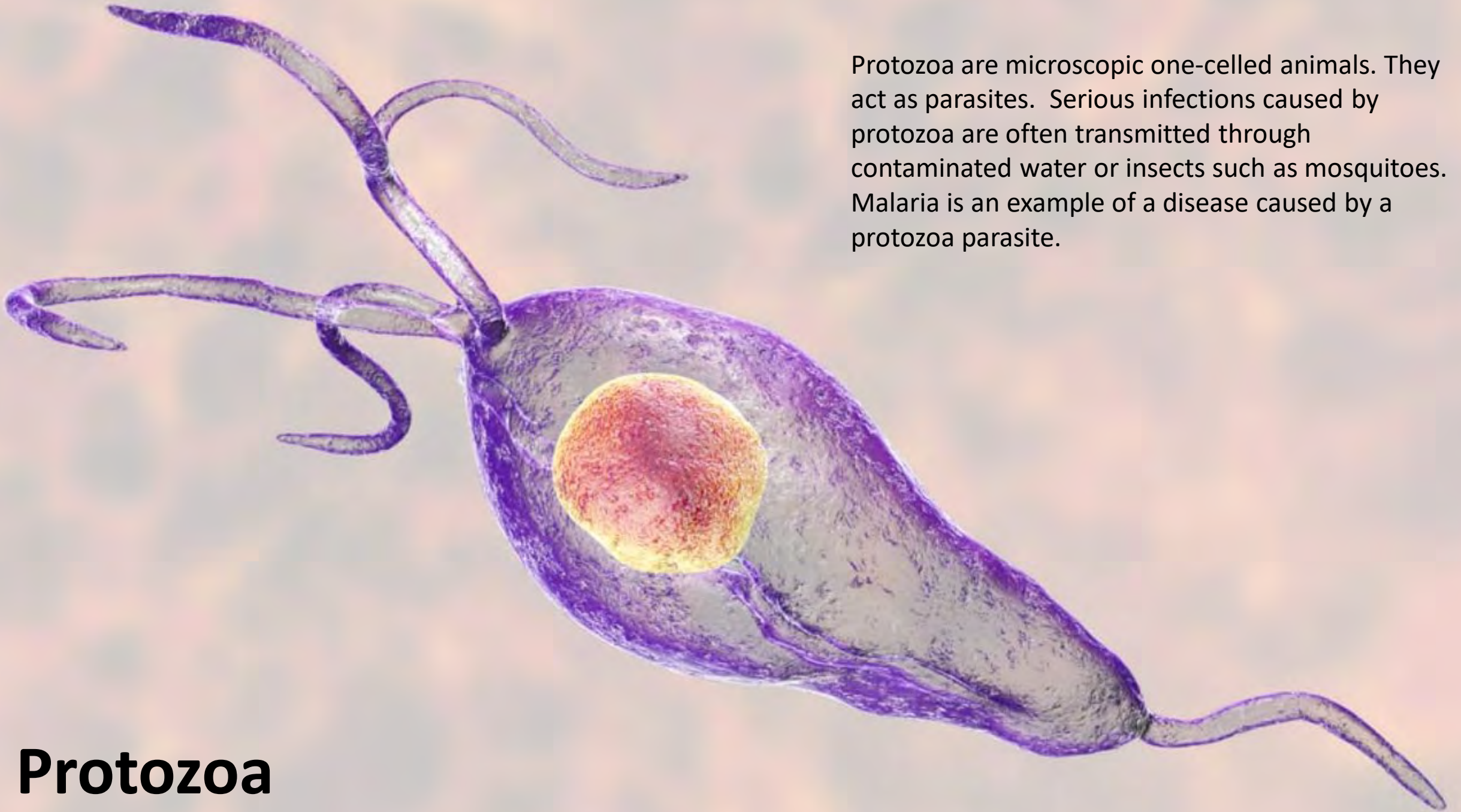
Viruses



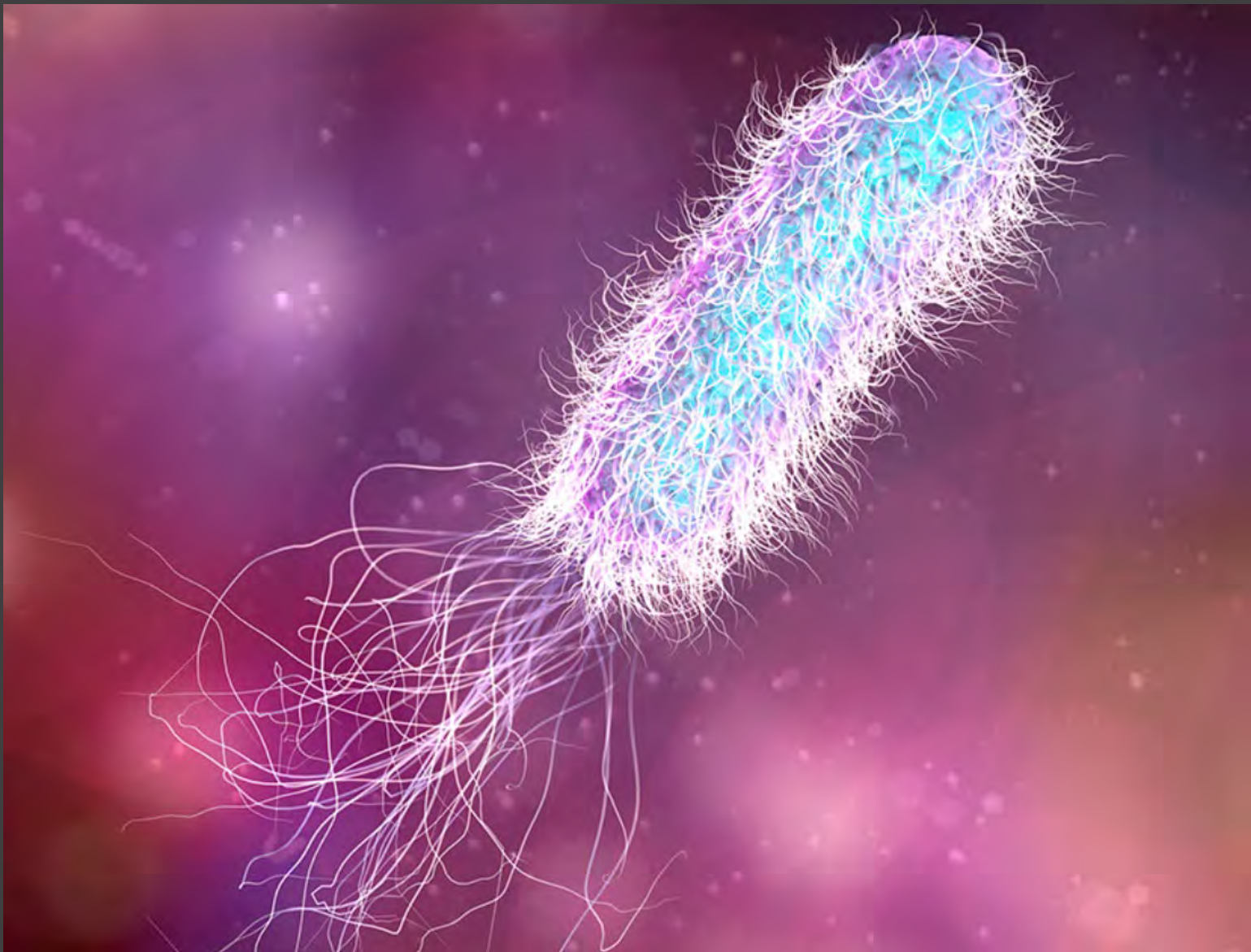
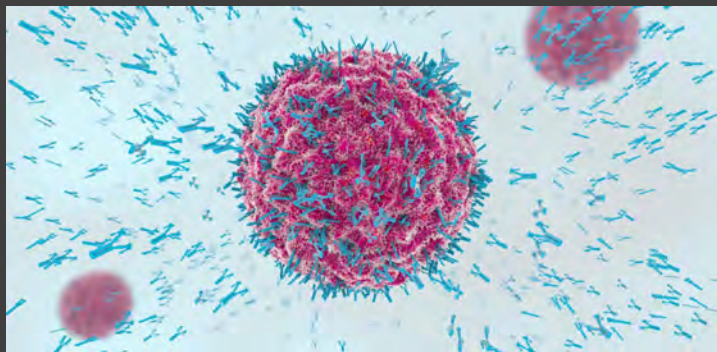
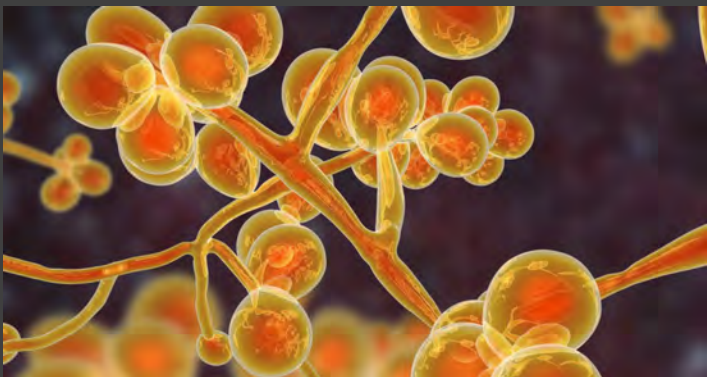
Fungi are plant-like organisms that do not synthesize their own food but feed off other organisms. Fungal diseases can infect different parts of your body, including your nails, skin, body hair, some body organs and your nervous system. Some of the more well-known include athlete's foot and yeast infections.

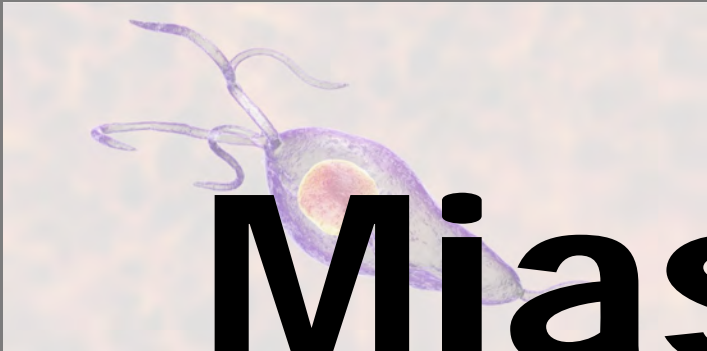
Fungi

Protozoa are microscopic one-celled animals. They act as parasites. Serious infections caused by protozoa are often transmitted through contaminated water or insects such as mosquitoes. Malaria is an example of a disease caused by a protozoa parasite.



Protozoa





Miasma Theory



vs.



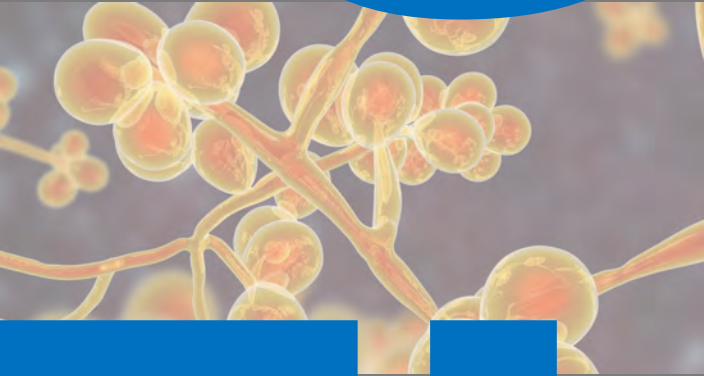
Germ Theory



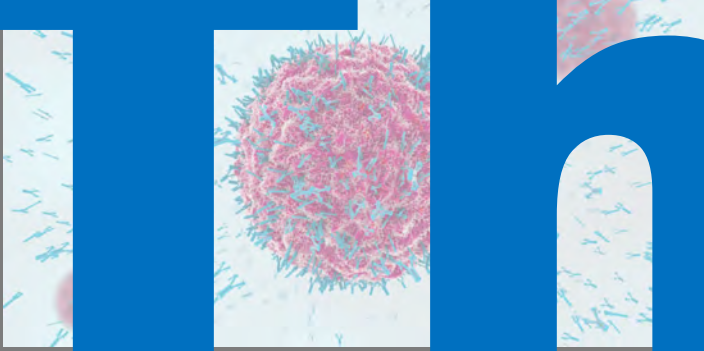


G

ermm



T

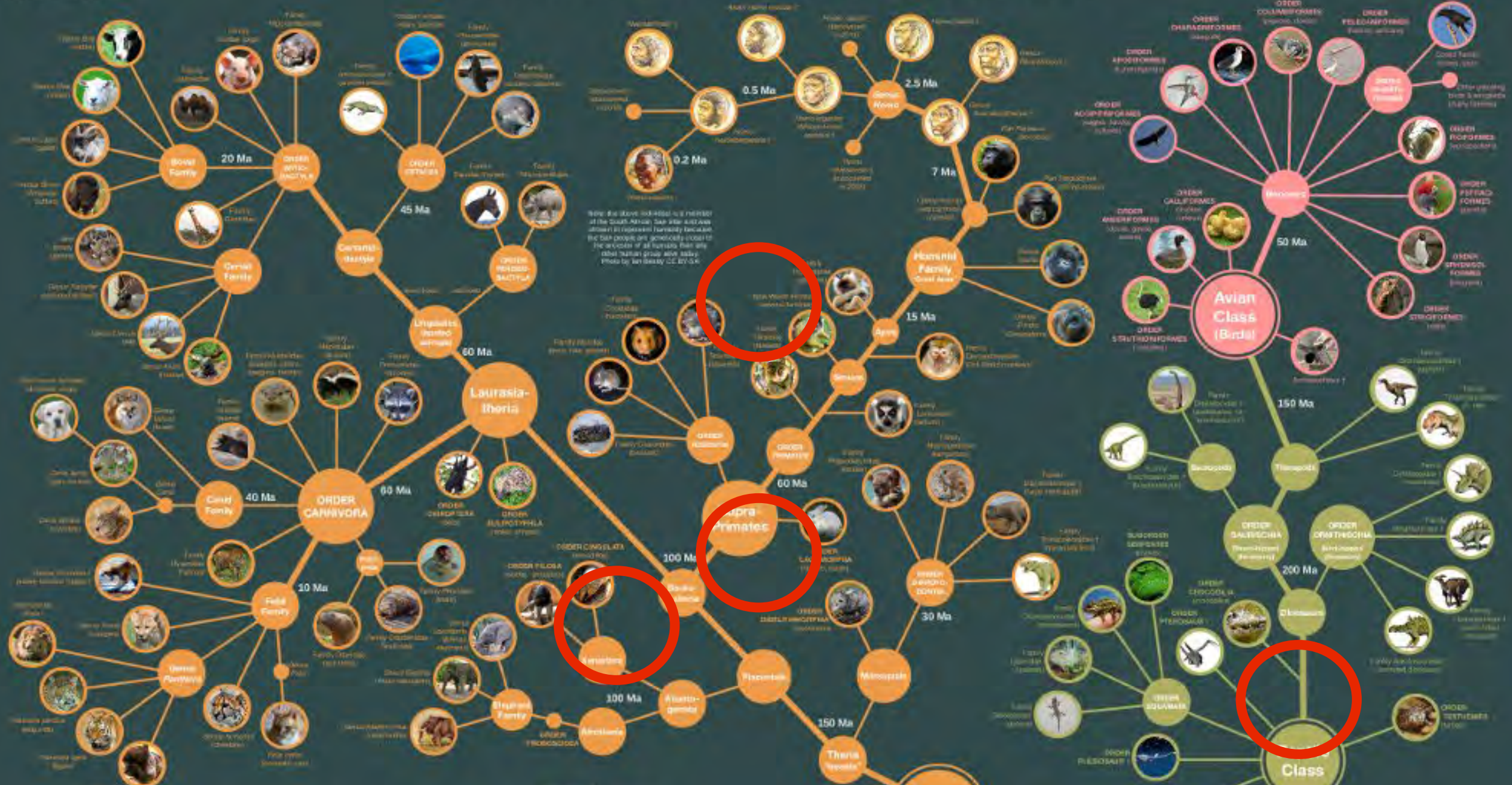


h



eoory

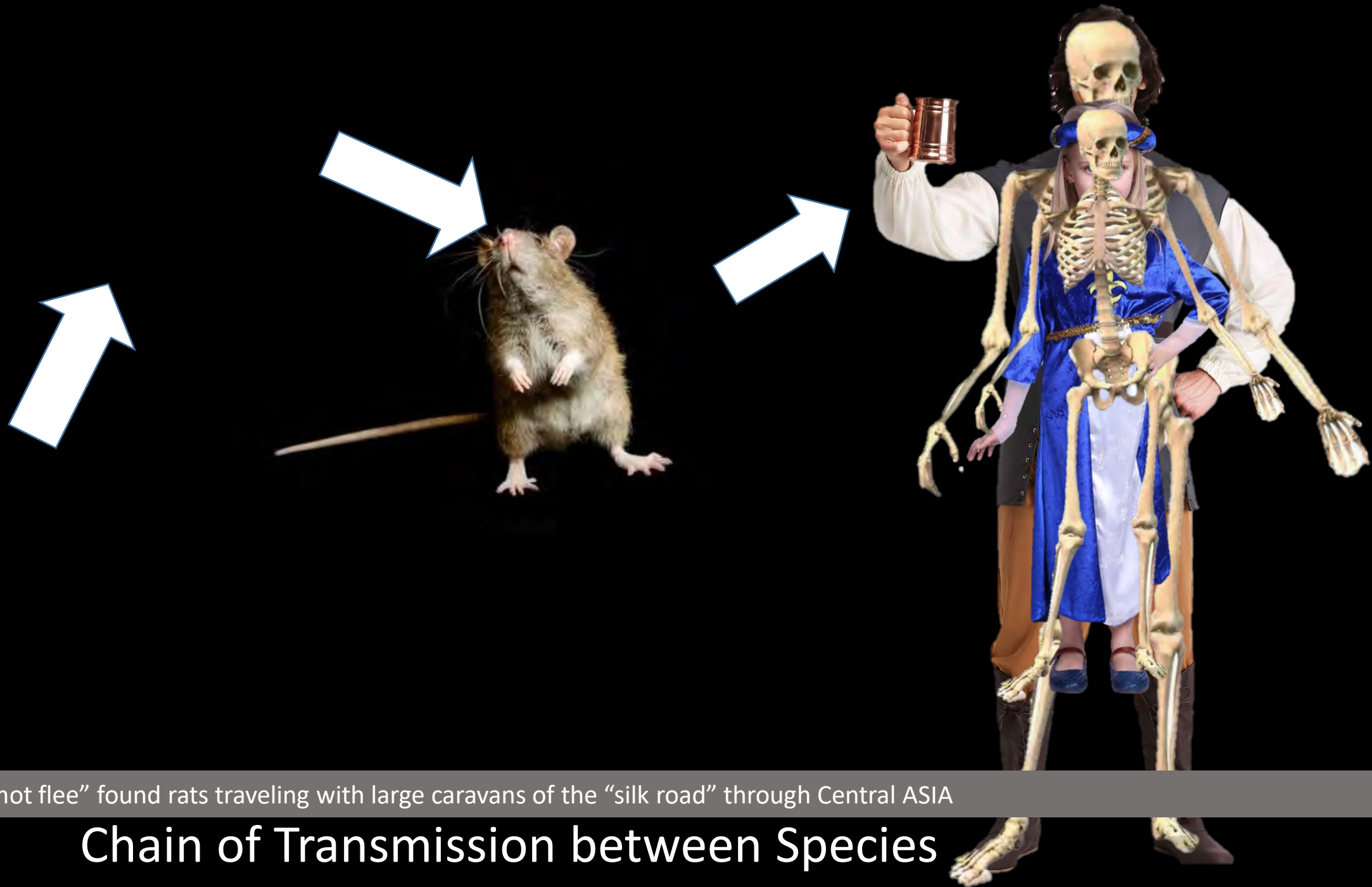
EVOLUTION & CLASSIFICATION OF LIFE



- ❖ Pandemics in History
- ❖ From Animals to Humans
- ❖ Three Plagues in One
- ❖ Heading Toward a Disaster
- ❖ Aggravating Circumstances
- ❖ Plague Doctors and Success Stories
- ❖ Consequences and Conclusion

From Animals
to Humans





Sidebar 2: the “marmot flea” found rats traveling with large caravans of the “silk road” through Central ASIA

Chain of Transmission between Species

The Rat Flea

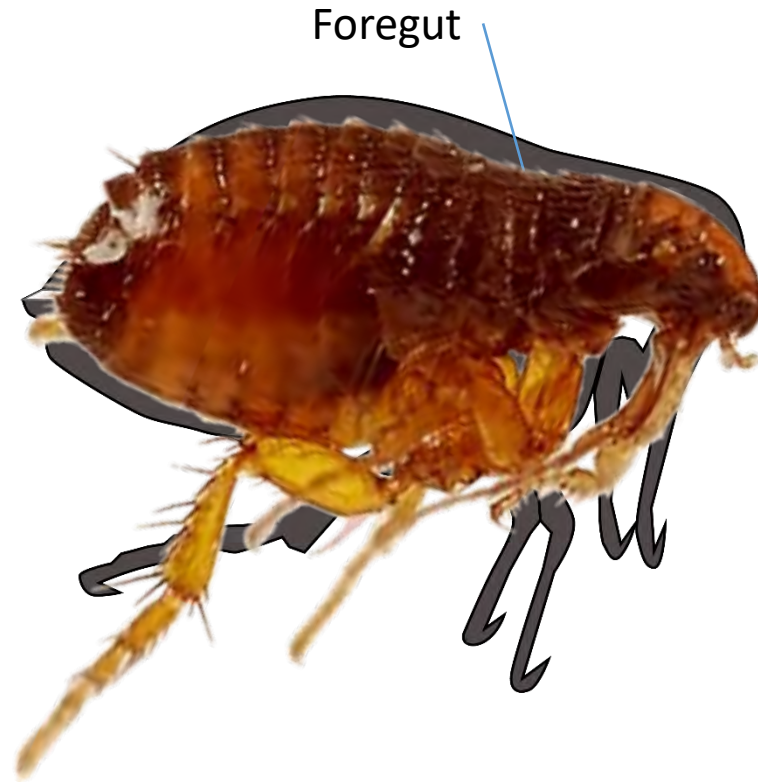
Oriental Flea
Xenopsylla cheopis

Can live without
a host for
Over a Month

Can Live on almost
Any Surface

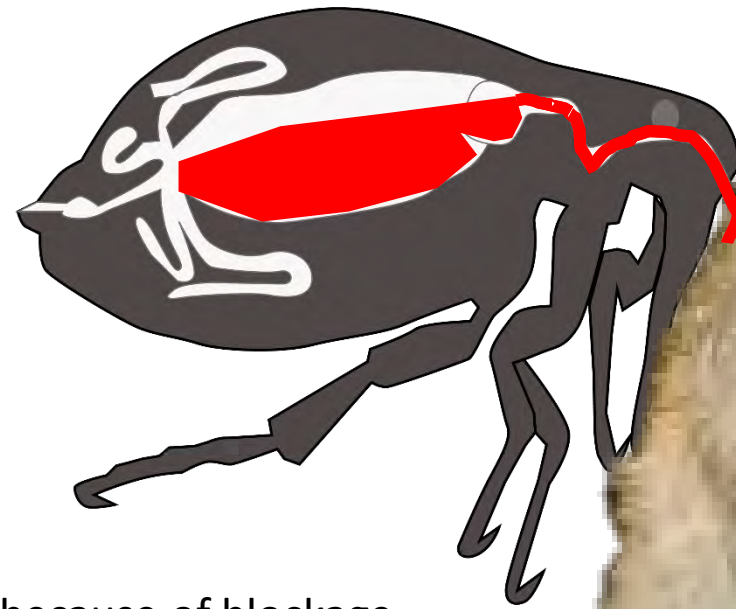


Since you asked Part1

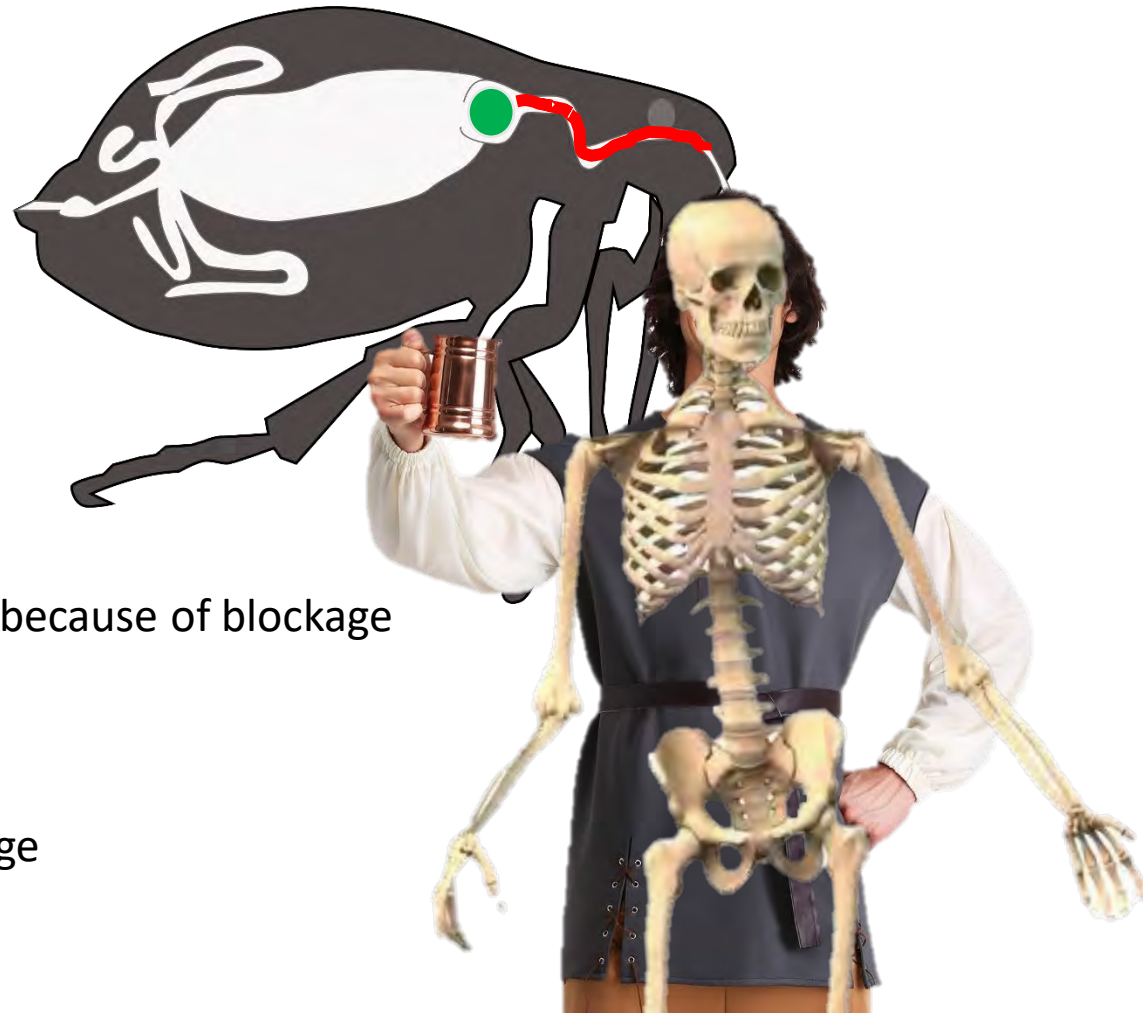


Flea Biology

Yersinia pestis
Blocks the Midgut



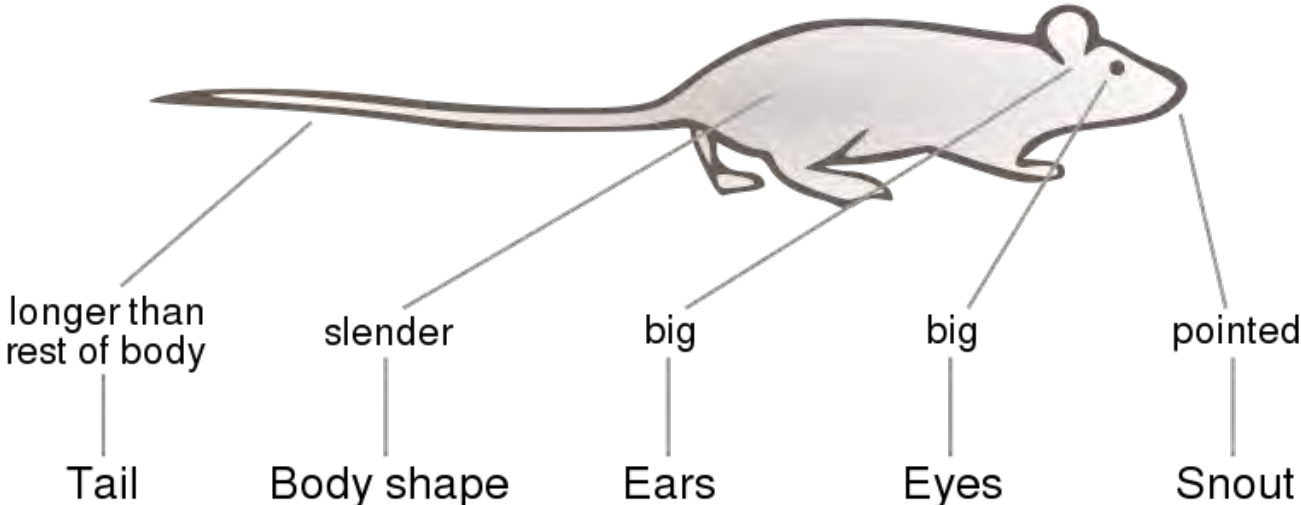
- The flea cannot drink the blood because of blockage
- Sick rat dies



- The flea cannot drink the blood because of blockage
- Sick rat dies
- The Flea is VERY hungry
- Flea finds another creature
- Vomit its gut to clear the blockage

Since you asked Part2

Black Rat



Since you asked
Part2

Black Rat



Since you asked

Part2

Black Rat

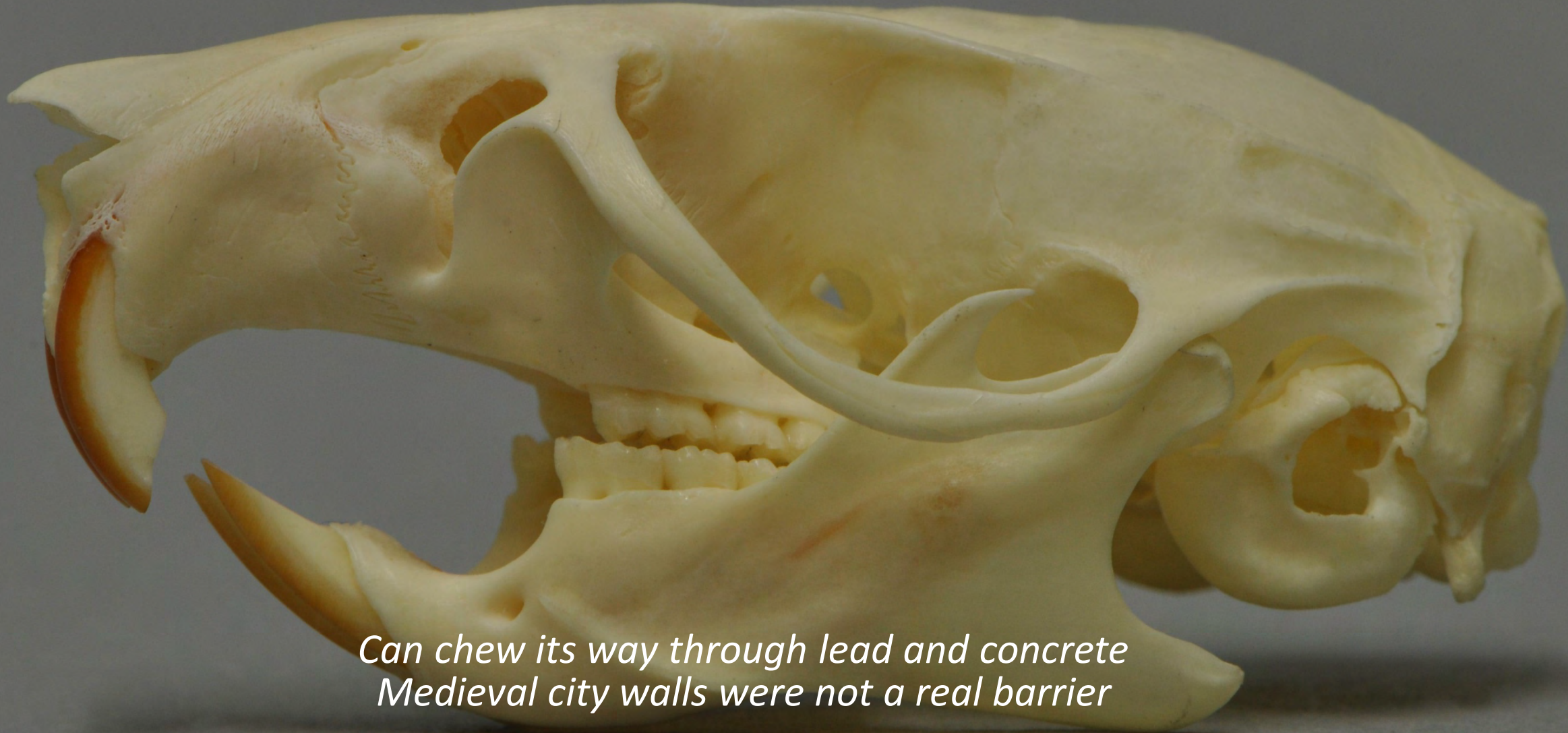
“Fun Facts”

- ❑ Evolved in Asia – 15,000 years ago
- ❑ Impressive Reproduction – 3 years of reproduction → 3 million rats
- ❑ Can Climb vertical surfaces
- ❑ Very smart and adaptive
- ❑ Survive a fall of 5 stories
- ❑ Vector of many diseases both bacterial and viral
 - Bubonic Plague (Bacterium)
 - Typhus (Bacterium)
 - Leptospirosis – Blood infection (Bacterium)
 - Toxoplasmosis (Parasite)
 - Hantavirus Pulmonary Syndrome (Virus)
 - Lassa Fever (Virus)



Since you asked
Part2

Rodent come from Latin "Rodere" – To Gnaw



*Can chew its way through lead and concrete
Medieval city walls were not a real barrier*

- ❖ Pandemics in History
- ❖ From Animals to Humans
- ❖ Three Plagues in One
- ❖ Heading Toward a Disaster
- ❖ Aggravating Circumstances
- ❖ Plague Doctors and Success Stories
- ❖ Consequences and Conclusion

Three Plagues
in One



Three Plagues in One!

- Bubonic plague,
- Pneumonic plague,
- Septicemic plague

Three Plagues in One!

- **Bubonic plague,**
- Pneumonic plague,
- Septicemic plague

- **Bubonic plague, the most common form, is transmitted by a flea bite and has a two-to six-day incubation.**
- **Bubonic plague is the most survivable of the three forms of the disease. Untreated, it has a mortality rate of about 60 percent.**



Three Plagues in One!

- Bubonic plague,
 - **Pneumonic plague,**
 - Septicemic plague
- Pneumonic can spread directly from person to person.
 - Pneumonic plague was not merely highly contagious but explosive
 - The “coughing plague” is extremely lethal. If it goes untreated, the mortality rate in its victims is between **95 and 100 percent.**

Three Plagues in One!

- Bubonic plague,
- Pneumonic plague,
- **Septicemic plague**

- No one survives untreated septicemic plague, the third form of the disease.
- Massive amounts of bacteria directly into the blood system creates such enormous toxicity that even insects normally incapable of transmitting *Y. pestis*, (body lice,) can become disease vectors.
- During one outbreak of septicemic plague in the early twentieth century, the average survival time from onset of symptoms to death was **14.5 hours**.
- the extremities become as black and hard as coal—inspired the term Black Death, but septicemic disease is uncommon,

Sidebar: Plague still exists today with 650 cases reported each year – 10% mortality – rats, squirrels, marmots,.....

- ❖ Pandemics in History
- ❖ From Animals to Humans
- ❖ Three Plagues in One
- ❖ Heading Toward a Disaster
- ❖ Aggravating Circumstances
- ❖ Plague Doctors and Success Stories
- ❖ Consequences and Conclusion

Heading Toward
a Disaster

Historical Markers

Roman Kingdom	753 BC	→	509 BC	244 years
Roman Republic	509 BC	→	27 BC	482 years
Roman Empire	27 BC	→	395 AD	368 years
Roman Empire West	395 AD	→	480 AD	85 years
Roman Empire East	395 AD	→	1461 AD	1066 years



The Plague happened when the Romain Empire was slowly dying



1300 AD

Western World in 14th Century

❖ Religious

❖ Feudal

❖ Agrarian



Marco Polo

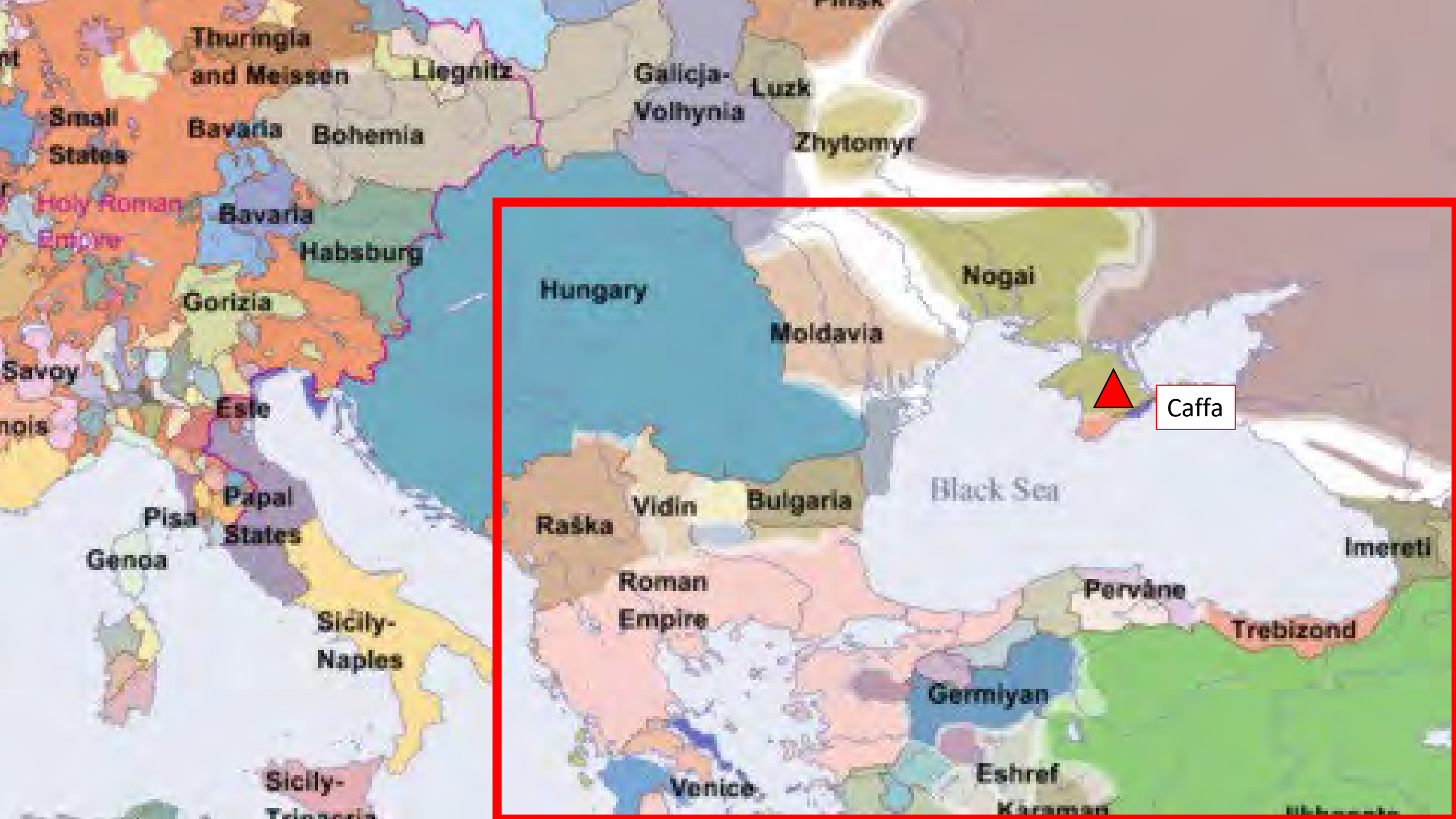
Venetian

1254- 1324

Travel the Silk Road

1271-1295

Between 1250 and 1350 the medieval world experienced an early burst of globalization



Thuringia
and Meissen

Liegnitz

Galicja-
Volhynia

Luzk

Zhytomyr

Small
States

Bavaria Bohemia

Bavaria
Habsburg

Gorizia

Savoy
nois

Este

Papal
States

Pisa
Genoa

Sicily-
Naples

Sicily-
Trentino

Hungary

Moldavia

Nogai

Caffa

Black Sea

Raska

Vidin

Bulgaria

Imereti

Roman
Empire

Pervane

Trebizond

Germiyan

Venice

Eshref

Karaman

Mongol Empire







Khanate of the Golden Horde

Chagatai Khanate

Ilkhanate

Khanate of the Great Khan

Heading toward a Catastrophe

- Caffa, at the southeastern edge of Crimea, was perfectly situated to exploit the new global economy - Link between the Western & Eastern World
- The port of Caffa was held under a grant from the Mongols.
- Caffa, built by Genoa, Italian outpost.
- Mongol Empire is split end of 13th century
- Trade dispute between Golden Horde and Genoa about slave trade



Sidebar: Many Slavic men were sold in Caffa, as slaves to fight medieval wars, the name is the origin of the English word "SLAVE"

Sidebar: The Italian word "Ciao" is a venetian contraction of "I am your Slave" or "I am at your service"

Heading toward a Catastrophe

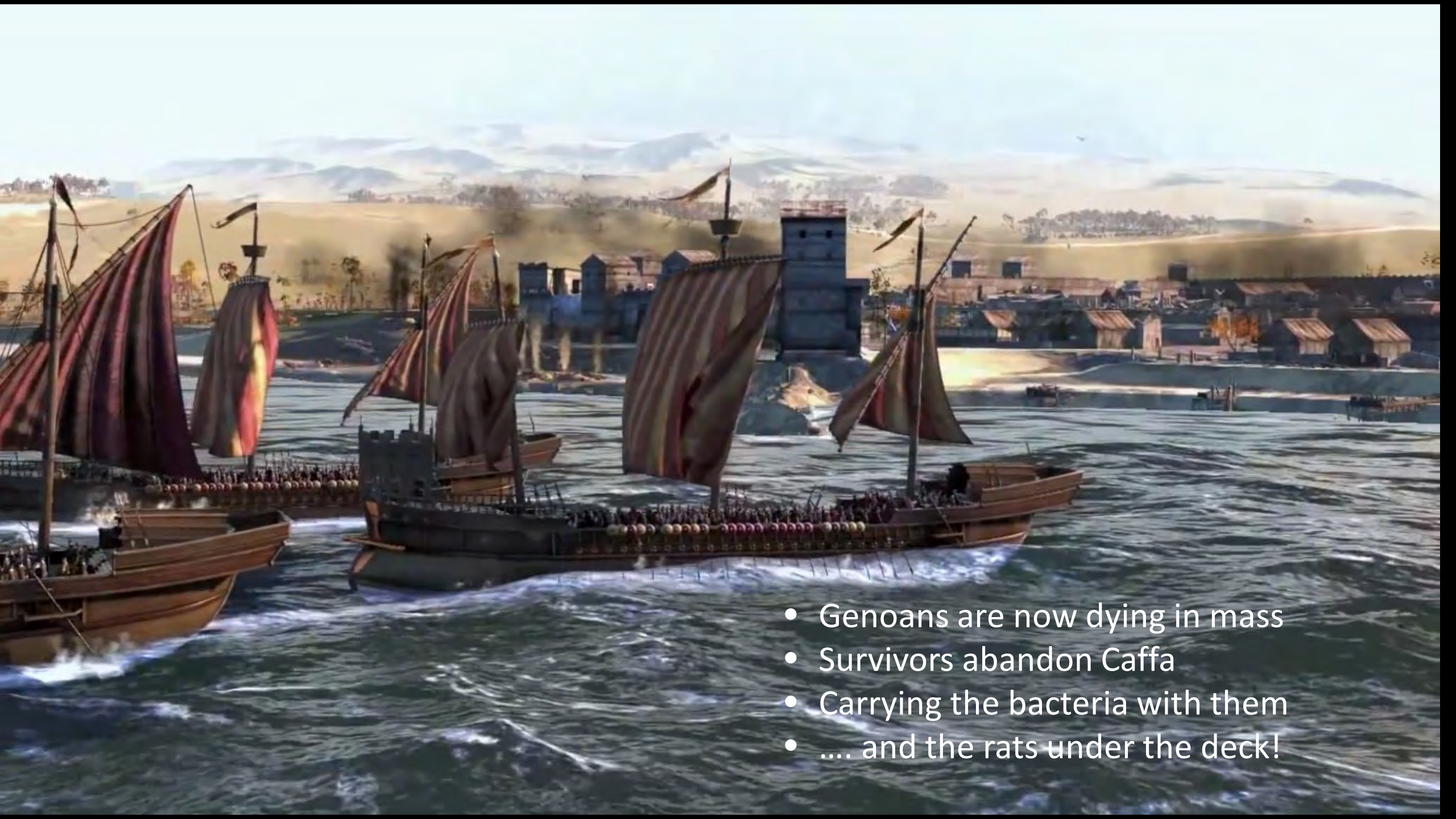
- Multiple sieges of Caffa by the Golden Horde
- Caffa resisted because of its dominance of the sea and support of Italian City States
- Mongols are dying of a mysterious illness and need to abandon the siege in 1347
- Before doing so, they catapult their dead corpses over the walls of Caffa



- 1000's of putrefied dead bodies catapulted
- Bodies “exploded” on arrival
- Spreading the bacteria and attracting the rats







- Genoans are now dying in mass
- Survivors abandon Caffa
- Carrying the bacteria with them
- ... and the rats under the deck!

1347

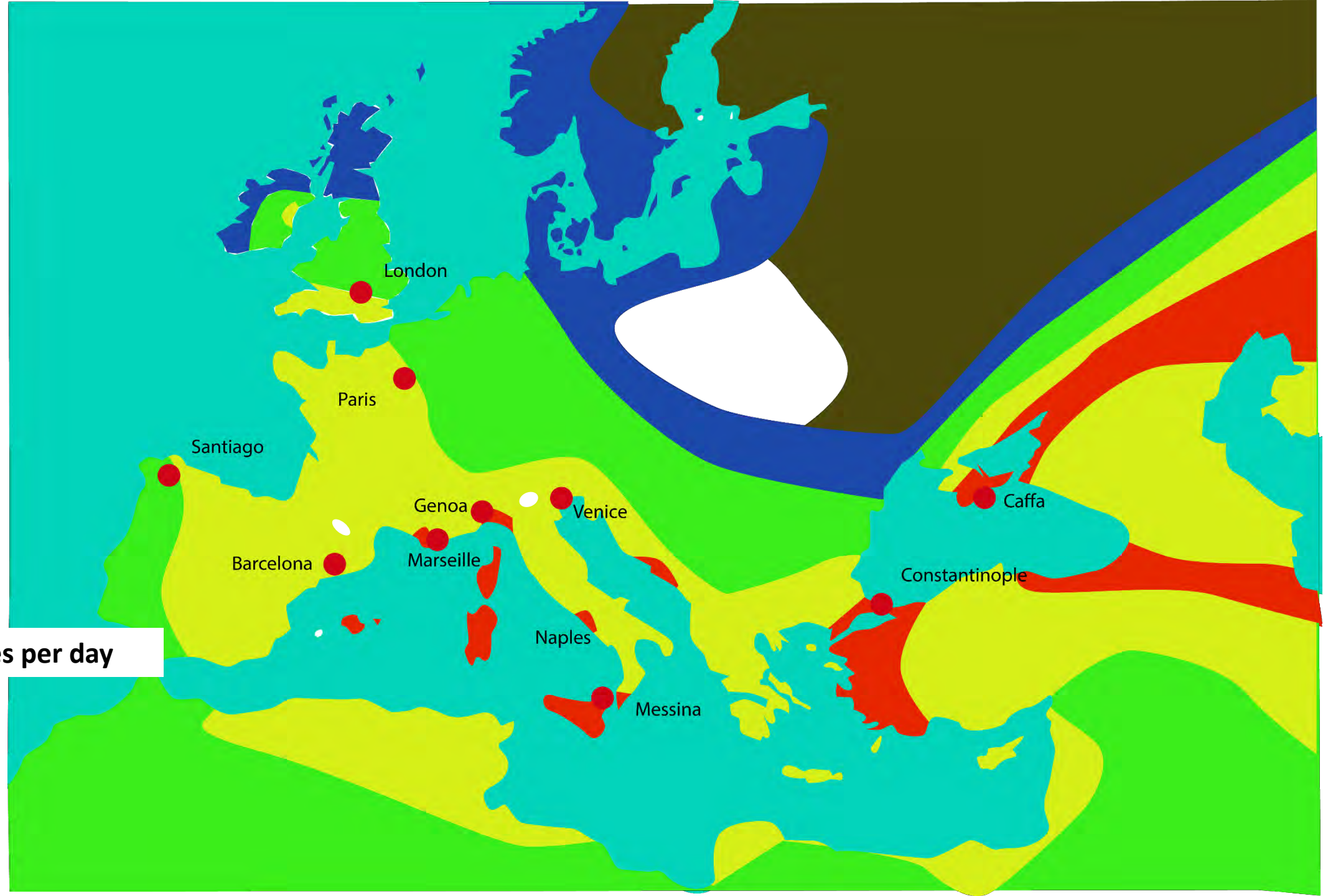
1348

1349

1350

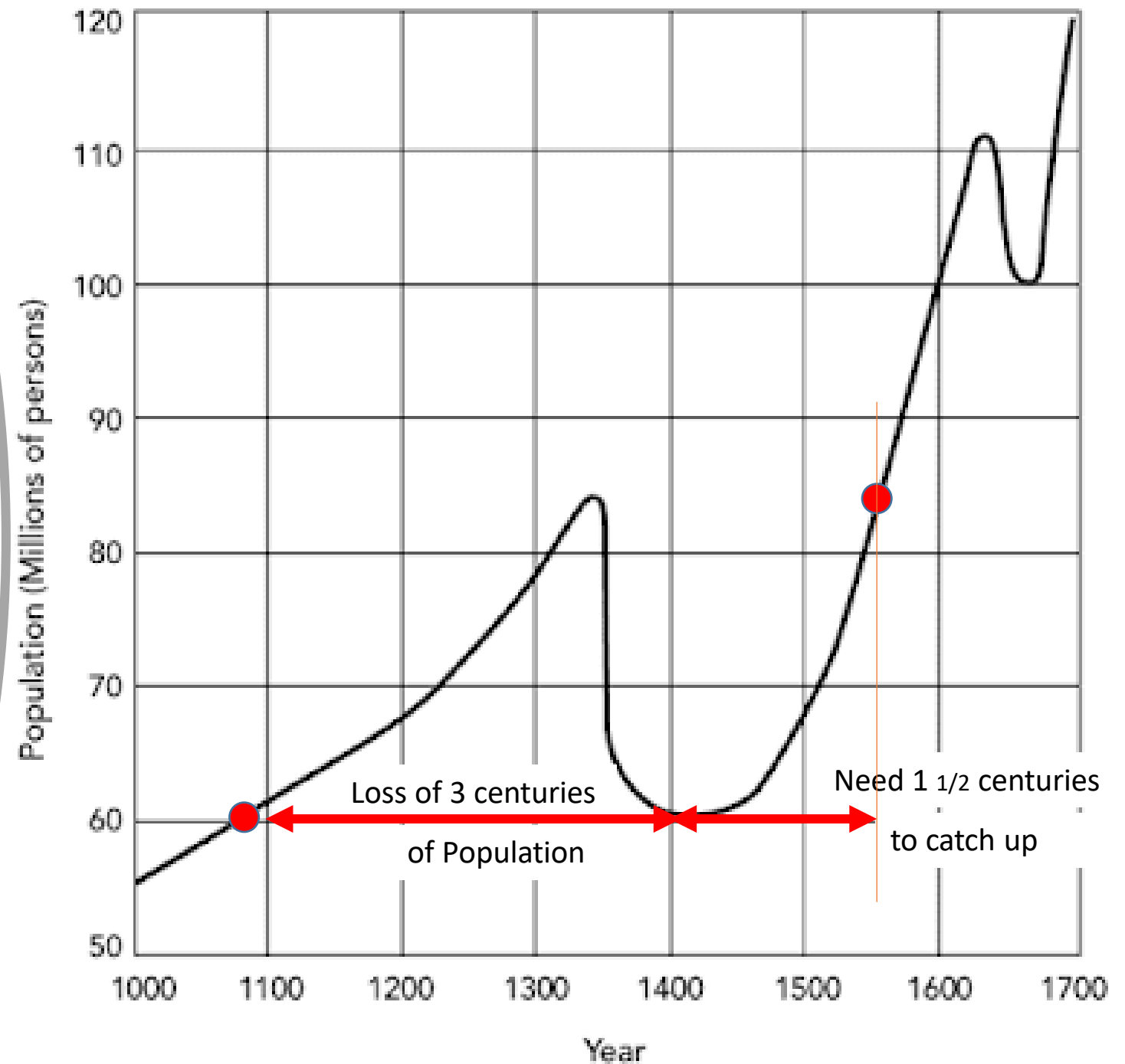
1351

2.5 miles per day



Scale of the disaster

- Up to 200 million death (75 million to 200 million) worldwide
- At least 25 million death in Europe
- From 1346 to 1353 – 7 years
- Only World War II with 85 million death is comparable
- As a percentage, today a disaster on the scale of the Black Death would claim 1.9 billion lives.







- ❖ Pandemics in History
- ❖ From Animals to Humans
- ❖ Three Plagues in One
- ❖ Heading Toward a Disaster
- ❖ Aggravating Circumstances
- ❖ Plague Doctors and Success Stories
- ❖ Consequences and Conclusion

Aggravating
circumstances

- Early 14th Century warming weather and better crop
- → Increase in population
- Now cooling, with overpopulation and not enough food
- Then draught and flooding
- → Crop's failure
- → Malnutrition
- Increase in conflicts and wars
- The highest number of conflicts in history
 - Scots vs British
 - French vs British (100-year War)
 - French vs Dutch
 - Italian vs Spanish



❖ Overcrowding

❖ Poor Health

❖ Malnutrition

❖ Political Instability

❖ Climate Change

❖ Filth

❖ Ignorance & Prejudice

Filth!

- Early medieval Europeans washed or changed their clothes once a year.
- Medieval city a human cesspool.
- In medieval Paris, several street names were inspired by merde. There were rue Merdeux, rue Merdelet, rue Merdusson, rue des Merdons, and rue Merdiere—as well as a rue du Pipi.
- Sanitation legislation consisted of an ordinance requiring homeowners to shout, “Look out below!” three times before dumping a full chamber pot into the street.



Medieval theories of the reasons

- Renowned Paris medical faculty pronounced the cause of the disease to be “an unusual conjunction of Saturn, Mars, and Jupiter at one on the afternoon on March 20th, 1345.”
- Some Church leaders said that it was punishment for sins,
- Accusations against Jewish families spread that they had caused the disease by deliberately poisoning wells.

Di et audiu intendo postea face
re mentionem.



Anno .m. cccc. xlix. capti fu
erunt iudei et in carceribus
et pulombus vniuersaliter

et q̄ uenenum in puteis
abius in aquis secrete proice
prout poterat et hoc fere



1pm March 20th, 1345
* assuming local time

Trump's New Favorite COVID Doctor Believes in Alien DNA, Demon Sperm, and Hydroxychloroquine

| ALTERNATIVE MEDICINE |

The president is pushing the coronavirus theories of a Houston doctor who also says sexual visitations by demons and alien DNA are at the root of Americans' common health concerns.



Will Sommer
Politics Reporter

Updated Jul. 28, 2020 11:42PM ET

Published Jul. 28, 2020 8:06AM ET





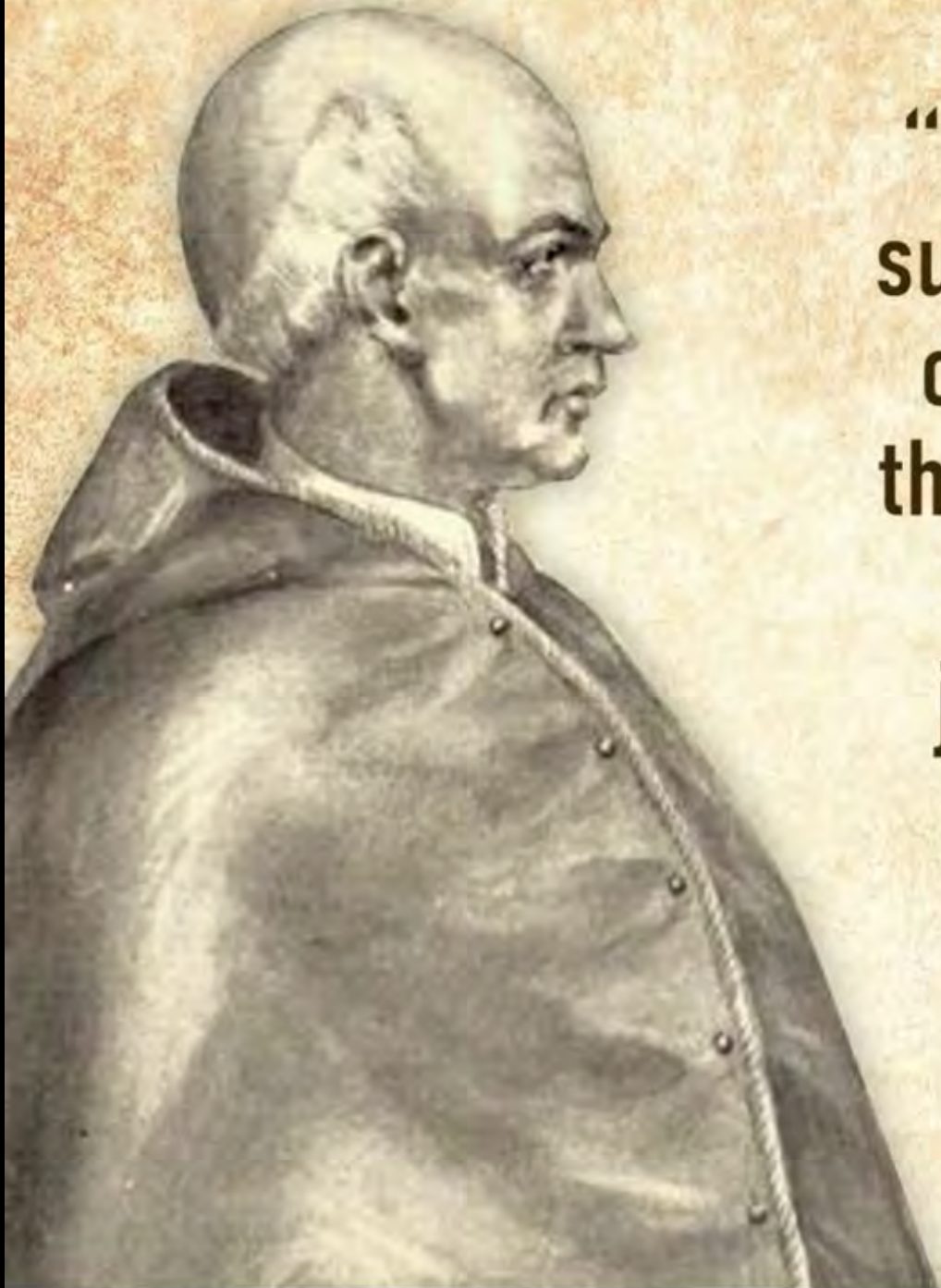


Anti-Semitism and the Plague

Jewish Communities **intensely persecuted and massacred**, blamed for outbreaks of the Plague, because of their perceived immunity in Europe from 1348 to 1351.

- Toulon, France, April 1348
- Barcelona, Spain, 1348
- Erfurt, 1349
- Basel, 1349
- Aragon, Spain, 1349
- Flanders, Holland, 1349
- Strasbourg, France, 1349
- Frankfurt, Germany, 1349
- Mainz, Germany, 1349
- Speyer , Germany, 1349





“It cannot be true that the Jews, by such a heinous crime, are the cause or occasion of the plague, because through many parts of the world the same plague, by the hidden judgment of God, has afflicted and afflicts the Jews themselves and many other races who have never lived alongside them.”

Pope Clement VI



Intelligencer

GOP Congresswoman Blamed Wildfires on Secret Jewish Space Laser

By Jonathan Chait



- ❖ Pandemics in History
- ❖ From Animals to Humans
- ❖ Three Plagues in One
- ❖ Heading Toward a Disaster
- ❖ Aggravating Circumstances
- ❖ Plague Doctors and Success Stories
- ❖ Consequences and Conclusion

Plague Doctors
&
Success Stories



Plague Doctors

A plague doctor was a physician who treated victims of the plague. These physicians were hired by towns and since the city was paying them a salary, they treated everyone, rich or poor. An early example of “Public Health.”







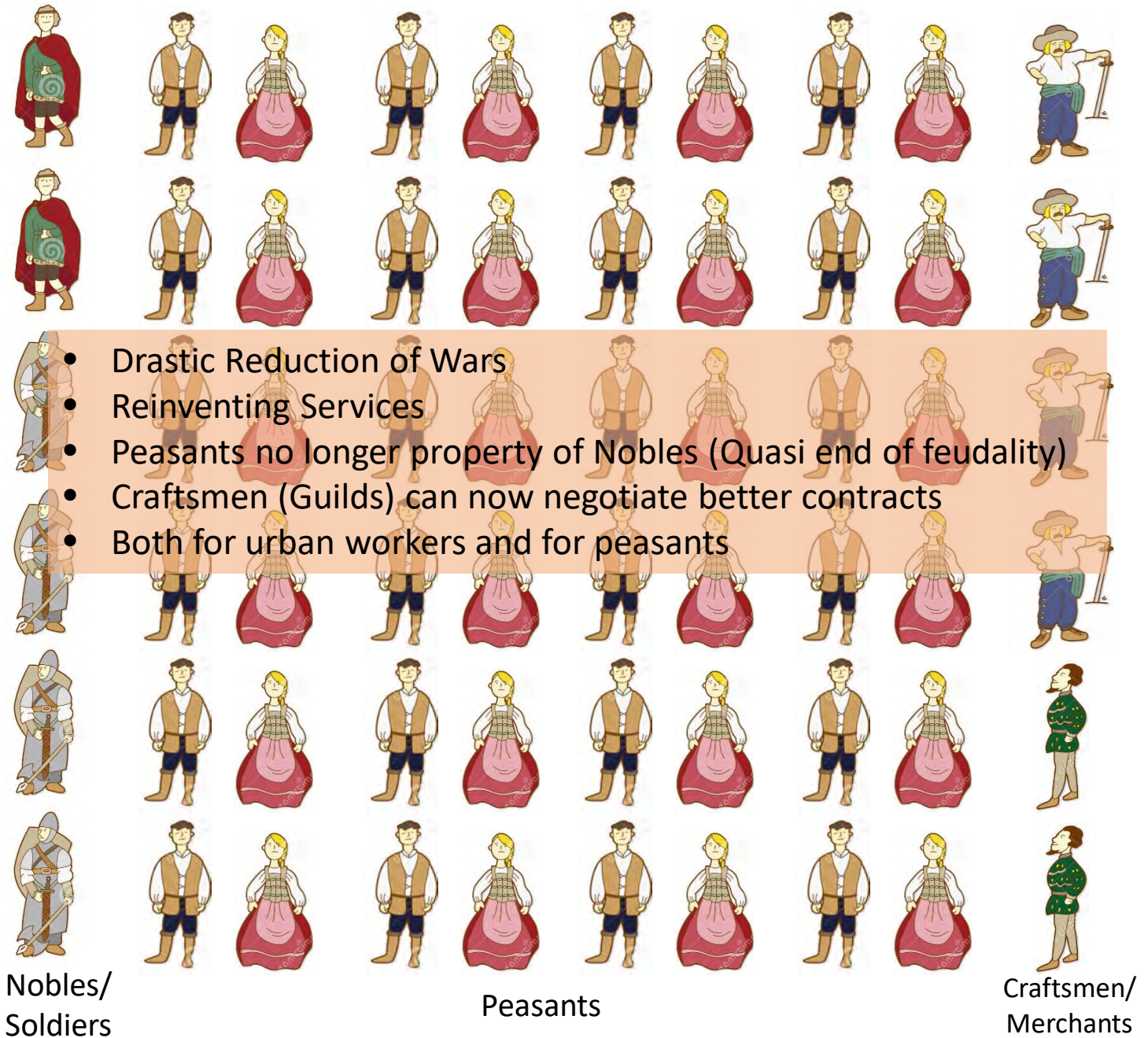
Only 15% death in Milan

- ❖ Pandemics in History
- ❖ From Animals to Humans
- ❖ Three Plagues in One
- ❖ Heading Toward a Disaster
- ❖ Aggravating Circumstances
- ❖ Plague Doctors and Success Stories
- ❖ Consequences and Conclusion

Consequences
&
Conclusion

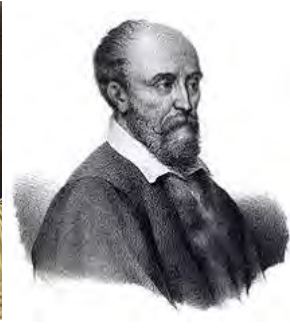
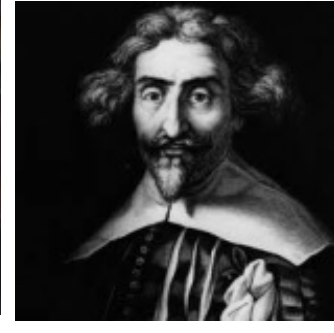
Scale of the disaster (2)

- The largest pandemic ever
- One third to half of Europe population dead
- World population from 475 million to 300 million
- Florence population from 120,000 to 50,000
- England population from 7 million to 2 million
- Over 1,500 villages in England eliminated
- Entire Jewish population in parts of Europe, eliminated









WARS

Ranks	Event	<u>Deaths</u>	Location	From	Until	Duration
1	World War II	84,269,920	Worldwide	1939	1945	6 years
2	Three Kingdoms	37,947,332	China	184	280	96 years
3	Mongol conquests	34,641,016	Eurasia	1206	1405	199 years
4	European colon. of the Americas	34,047,026	Americas	1492	1691	199 years
5	Taiping Rebellion	31,622,777	China	1851	1864	14 years
6	Transition from Ming to Qing	25,000,000	China	1618	1683	65 years
7	Second Sino-Japanese War	22,360,680	China	1937	1945	8 years
8	An Lushan Rebellion	21,633,308	China	755	763	8 years
9	World War I	23,568,559	Worldwide	1914	1918	4 years
10	Conquests of Timur	12,649,111	Central Asia,	1370	1405	35 years

NATURAL DISASTERS

Rank	Death toll	Event	Location	Date
1.	4,000,000	1931 China floods		July 1931
2.	2,000,000	1887 Yellow River flood		September 1887
3.	830,000	1556 Shaanxi earthquake	China	January 23, 1556
4.	655,000	1976 Tangshan earthquake		July 28, 1976
5.	500,000	1970 Bhola cyclone	East Pakistan (now Bangladesh)	November 13, 1970
6.	316,000	2010 Haiti earthquake	Haiti	January 12, 2010
7.	300,000	526 Antioch earthquake	Byzantine Empire (now Turkey)	May 526
8.	300,000	1881 Haiphong typhoon	Vietnam	October 8, 1881
9.	273,400	1920 Haiyuan earthquake		December 16, 1920
10.	229,000	Typhoon Nina	China	August 7, 1975

PANDEMICS

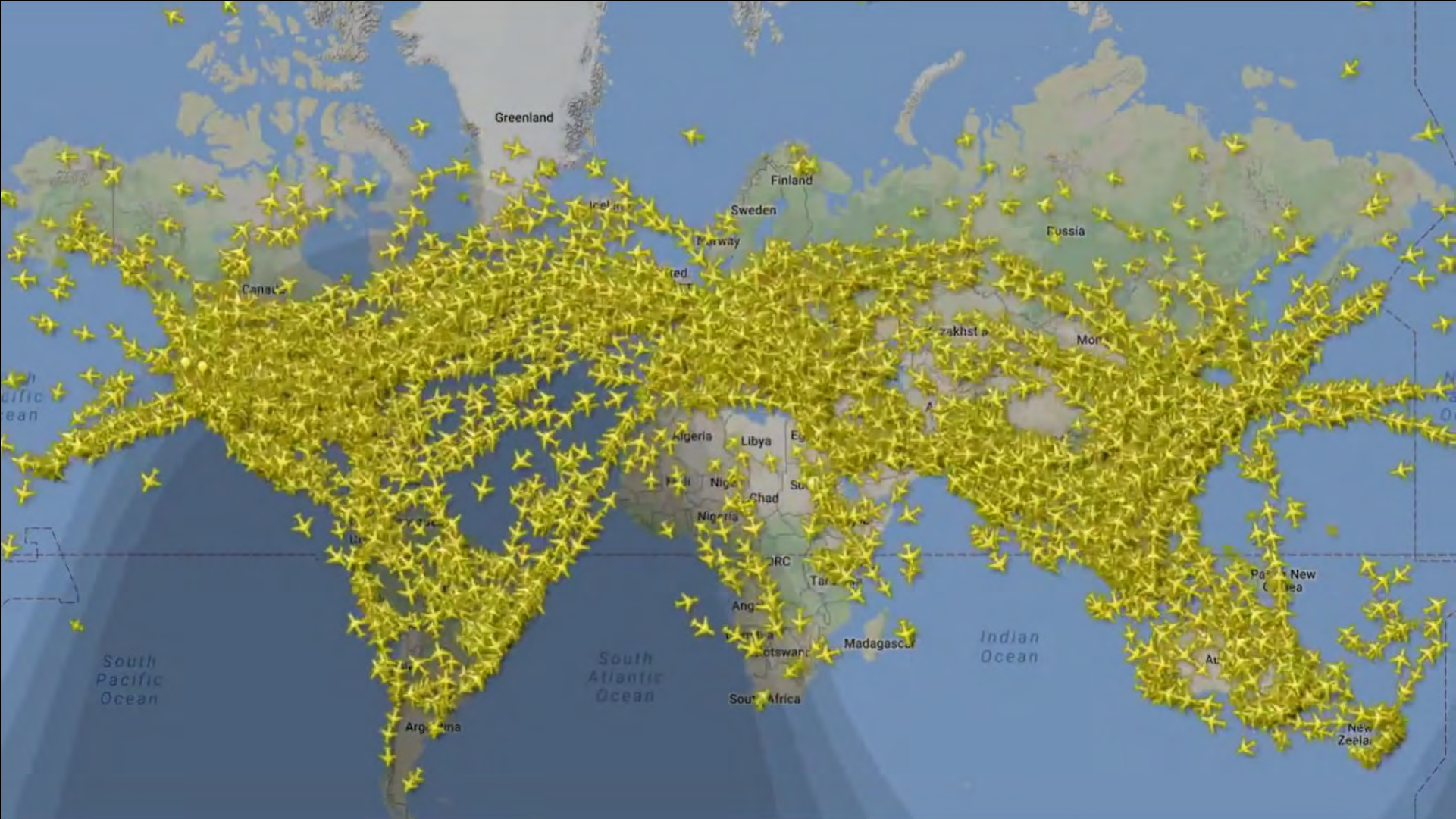
1353	200,000,000	Plague	Europe/ Asia/ N. Africa
1918	75,000,000	Influenza (H1N1)	Worldwide
542	50,000,000	Plague	Europe/ Egypt
1545	15,000,000	Salmonella	Mexico
1960 →	30,000,000	AIDS	Worldwide
180	10,000,000	Smallpox	Roman Empire
2020	6,000,000+	COVID19	Worldwide
1957	2,000,000	Influenza (H2N2)	Worldwide
1968	1,250,000	Influenza (H3N2)	Worldwide
1852	1,100,000	Cholera	Russia

World War I

FOUR YEARS



About 24 Million deaths



Est-ce un péché ? Non non. Vous leur fîtes,
Seigneur,
En les croquant beaucoup d'honneur;
Et quant au berger, l'on peut dire
Qu'il était digne de tous maux,
Étant de ces gens-là qui sur les animaux
Se font un chimérique empire. »
Ainsi dit le Renard ; et flatteurs d'applaudir.
On n'osa trop approfondir
Du Tigre, ni de l'Ours, ni des autres puissances,
Les moins pardonnables offenses.
Tous les gens querelleurs, jusqu'aux simples
mâtins,
Au dire de chacun, étaient de petits saints.
L'Âne vint à son tour, et dit : « J'ai souvenance
Qu'en un pré de moines passant,
La faim, l'occasion, l'herbe tendre, et je pense
Quelque diable aussi me poussant,
Je tondis de ce pré la largeur de ma langue.
Je n'en avais nul droit, puisqu'il faut parler net. »
À ces mots, on cria haro sur le baudet.
Un Loup, quelque peu clerc, prouva par sa
harangue
Qu'il fallait dévouer ce maudit animal,
Ce pelé, ce galeux, d'où venait tout leur mal.
Sa peccadille fut jugée un cas pendable.
Manger l'herbe d'autrui ! quel crime abominable !
Rien que la mort n'était capable
D'expier son forfait : on le lui fit bien voir.
Selon que vous serez puissant ou misérable,
Les jugements de cour vous rendront blanc ou noir.



CONCLUSION

RANDOM THOUGHTS

- We are nothing but the sum of all who preceded us.
- We are the sum of survivors. We are survivors.
- Being alive now is like having won the “jackpot” of Life.
- Grateful, decent and kind.
- Recovery from the COVID pandemic offers opportunities to re-invent society
- Toward a 21st Century Renaissance?

An aerial night photograph of St. Peter's Basilica in Rome, Italy. The basilica is brightly lit, highlighting its large dome and the Campanile tower. The surrounding city is visible in the background with scattered lights. The text "THANK YOU!" is overlaid in large, white, bold, sans-serif font in the lower center of the image.

THANK YOU!