

Systematic Botany. Lecture 20

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Outline

Questions and answers

Monera

Archaea

Protista

Panmycota

Outline

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Previous final question: the answer

Which group of bacteria cause syphilis disease?

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- ▶ Spirochaetae

Archaea *versus* Bacteria

Bacteria	Archaea
cell membrane is “normal”	cell membrane contains ether linkages
cell wall made of peptidoglycan	cell wall lacks peptidoglycan
only one RNA polymerase	three RNA polymerases like eukaryotes
react to bacterial antibiotics	protein synthesis similar to Eukaryotes

Euryarchaeota: B-1

Subregnum *Archaeobacteria* [^{6,8}*Methanobacterium*]*

Phylum 13. EURYARCHAEOTA [⁶*Methanobacterium*]

- Classis 1(42). *Nanoarchea* [⁵*Nanoarchaeum*]
- 2(43). *Parvarchea* † [⁵*Parvarchaeum*] ²⁵
- 3(44). *Thermococci* [⁵*Thermococcus*]
- 4(45). *Methanobacteria* [⁵*Methanobacterium*] s.a. ²⁶
- 5(46). *Thermoplasmata* [⁵*Thermoplasma*]
- 6(47). *Archaeoglobi* [⁵*Archaeoglobus*]
- 7(48). *Halomebacteria* [⁵*Halobacterium*] ²⁷

Other Archaea: B-2

Phylum 14. CRENARCHAEOTA [⁶*Sulfolobus*]

Classis 1(49). *Korarchaea* [⁵*Korarchaeum*] stat.m.

2(50). *Sulfolobea* [⁵*Sulfolobus*]²⁸

3(51). *Thermoprotei* [⁵*Thermoproteus*]

Phylum 15. THAUMARCHEOTA [⁶*Cenarchaeum*]

Classis 1(52). *Cenarchaea* [⁵*Cenarchaeum*]²⁹

Amoebozoa I (Pr-2)

Superphylum *Sarcobionta*[†] [^{6,2}*Amoeba*]

Phylum 22. AMOEBOZOA [⁶*Amoeba*]⁴⁹

Subphylum *Lobosea* [^{5,8}*Amoeba*]⁵⁰

Classis 1(92). *Acanthopodida* [⁵*Acanthamoeba*]⁵¹

2(93). *Thecamoebida* i.s.[⁵*Thecamoeba*]⁵²

Amoebozoa II (Pr-23)

3(94). *Mayorellida*[†] [⁵*Mayorella*] i.s.⁵³

4(95). *Flabellinea* [⁵*Vannella*]⁵⁴

5(96). *Tubulinea* [⁵*Amoeba*]⁵⁵

Subphylum *Conosea* [^{5,8}*Physarum*]

Classis 6(97). *Archamoebae* [⁵*Mastigamoeba*]⁵⁶

7(98). *Variosea* [⁵*Filamoeba*]* sed.m.⁵⁷

8(99). *Macromycetozoa* [⁵*Physarum*]⁵⁸

Apusozoa

Phylum 23. APUSOZOA [⁶*Apusomonas*] s.a.

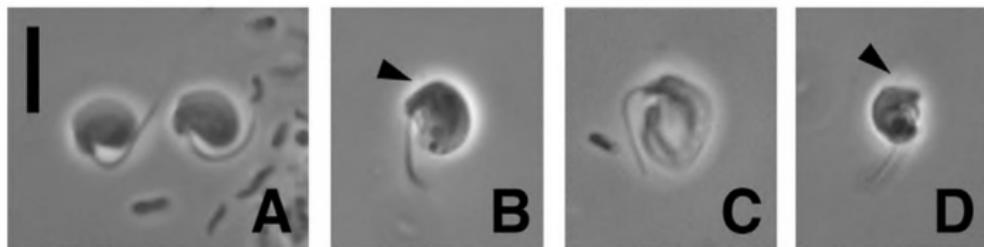
Classis 1(100). *Breviatea* [⁵*Breviata*]⁵⁹

2(101). *Anisomonadea* [⁵*Collodictyon*] i.s.⁶⁰

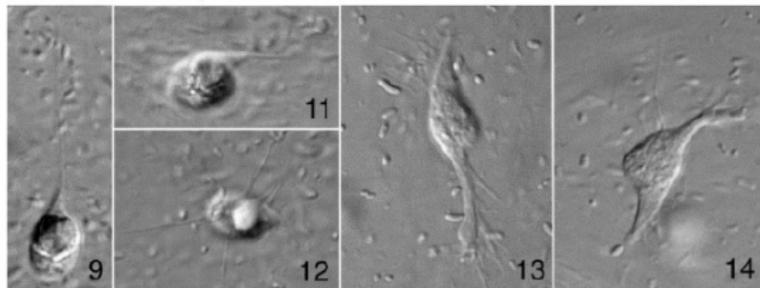
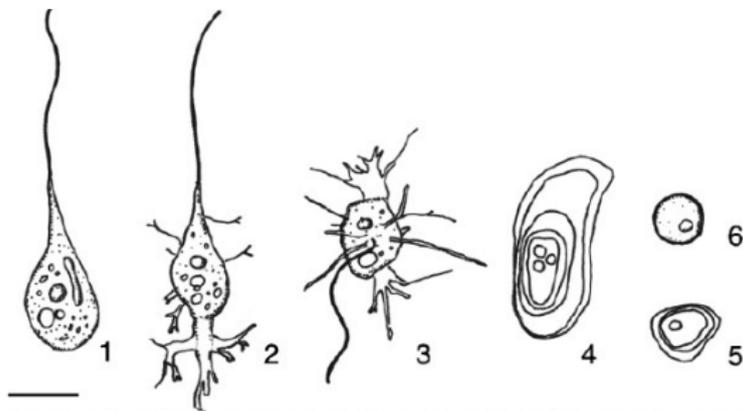
3(102). *Ancyromonadea* [⁵*Ancyromonas*] sed.m.⁶¹

4(103). *Apusomonadea* [⁵*Apusomonas*]⁶²

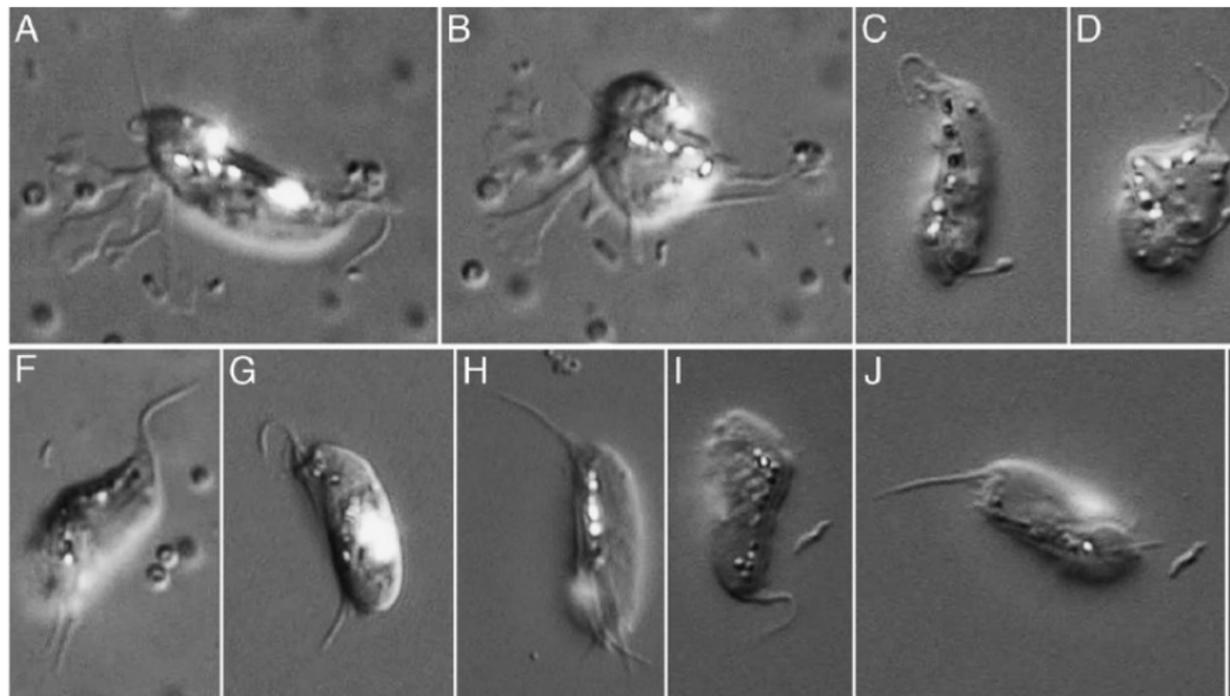
Ancyromonas

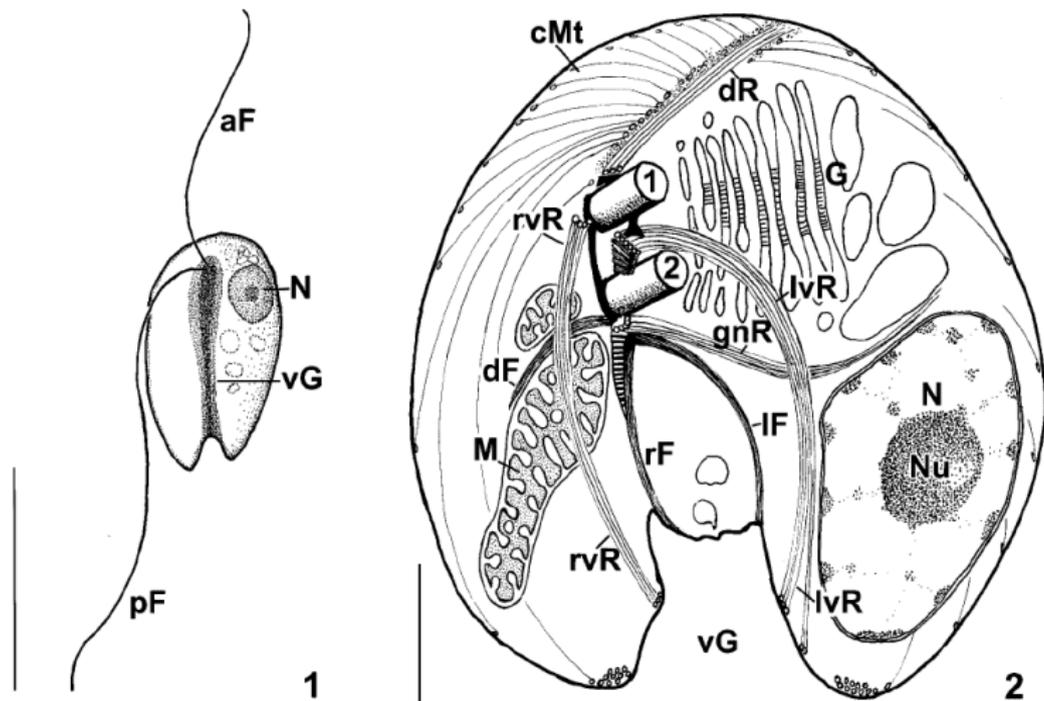


Breviata



Podomonas



Sulcomonas

Final question (2 points)

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Please list two main groups of archaea

For Further Reading



Margulis and Chapman. 2009.

Kingdoms and domains: an illustrated guide to the phyla of life on Earth. 4th edition.

P. 58–63, 134–137, 190–191.