General Characteristics of Zygomycota

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Zygomycota

The phylum Zygomycota comprises the first group of fungi which lacks any motile stage. Asexual reproduction is by spores which are called aplanospores because they are non-motile, and sporangiospores because they are typically contained within sporangia.

Zygomycota

Two classes are included in the Zygomycota

Class Zygomycetes: comprising 870 species in 10 orders.

Class Trichomycetes: with 218 species in 3 orders.

The most prominent orders of the Zygomycetes:

1. Mucorales.

2. Entomophthorales

3. Glomales.

Mucorales: are ubiquitous in soil and dung mostly as saprotrophs, although a few are parasitic on plants and animals. Mucor fungi also known as Black Fungus, or Bread Mold

Entomophthorales include a number of insect parasites, but some saprotrophic forms also exist.

Glomales: are mutualistic symbionts associated with almost all kinds of terrestrial plants as arbuscular mycorrhiza.

Trichomycetes are mostly commensal in the guts of arthropods, e.g. millipedes and the larvae of aquatic insects.

Zygomycetes/ Mucorales

In most members of the Mucorales, numerous spores are contained in globose sporangia borne at the tips of aerial sporangiophores. Within the sporangium the spores may surround a central core or columella.
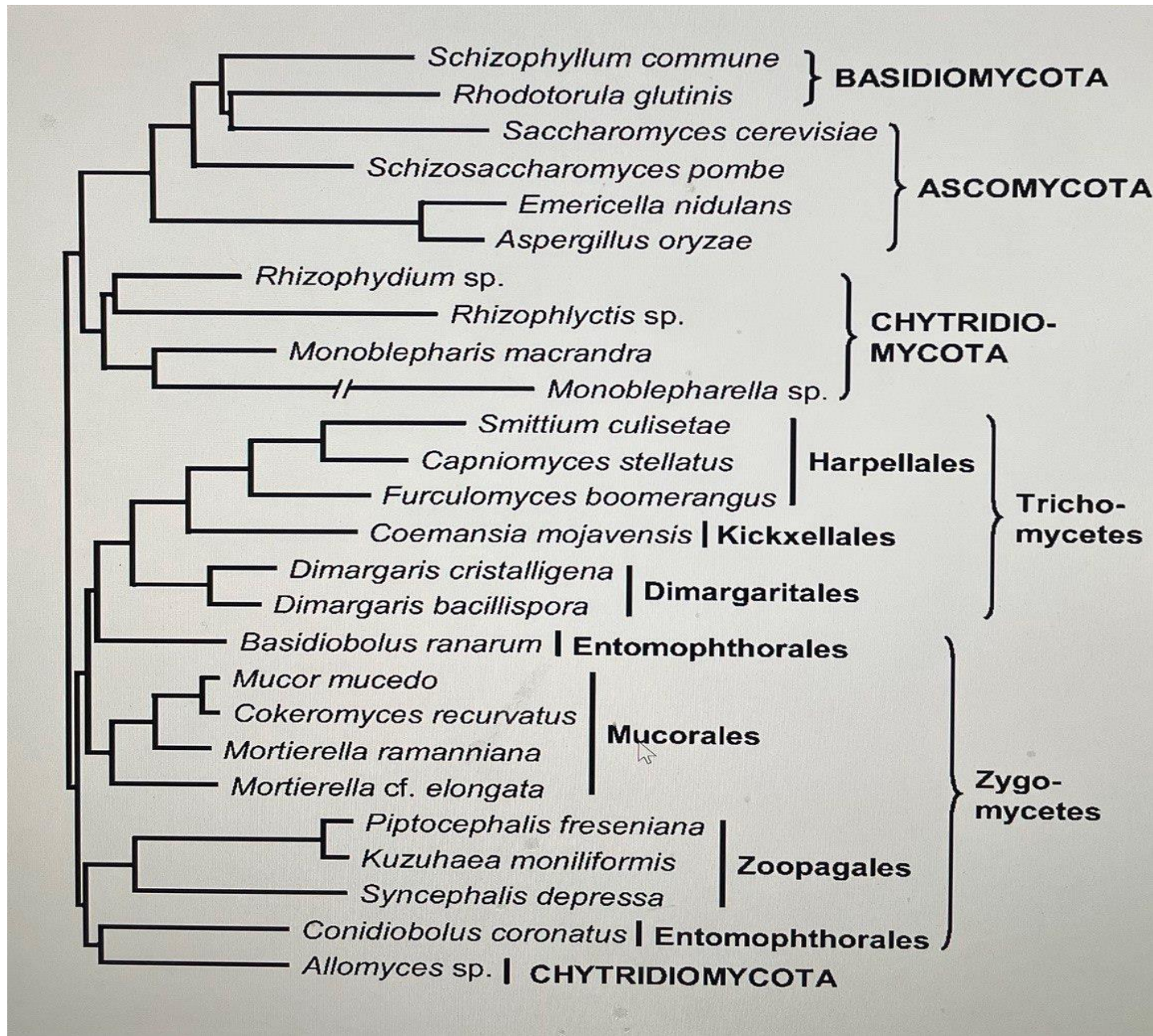
Mucorales

The Mucorales are mostly saprotrophic and are abundant in soil and on other organic matter in contact with the soil. They may play an important role in the early colonization of substrata. Sometimes, however, they can behave as weak pathogens of soft plant tissues, e.g. *Rhizopus stolonifer* can cause a rot of sweet potatoes or fruits such as apples, tomatoes and strawberries.

Species of Rhizopus and Mucor are reported from human lesions, and these genera together with species of Absidia may also infect domestic animals.

Rhizopus stolonifer

sporangiophores

0.2 mm

stolon

rhizoid
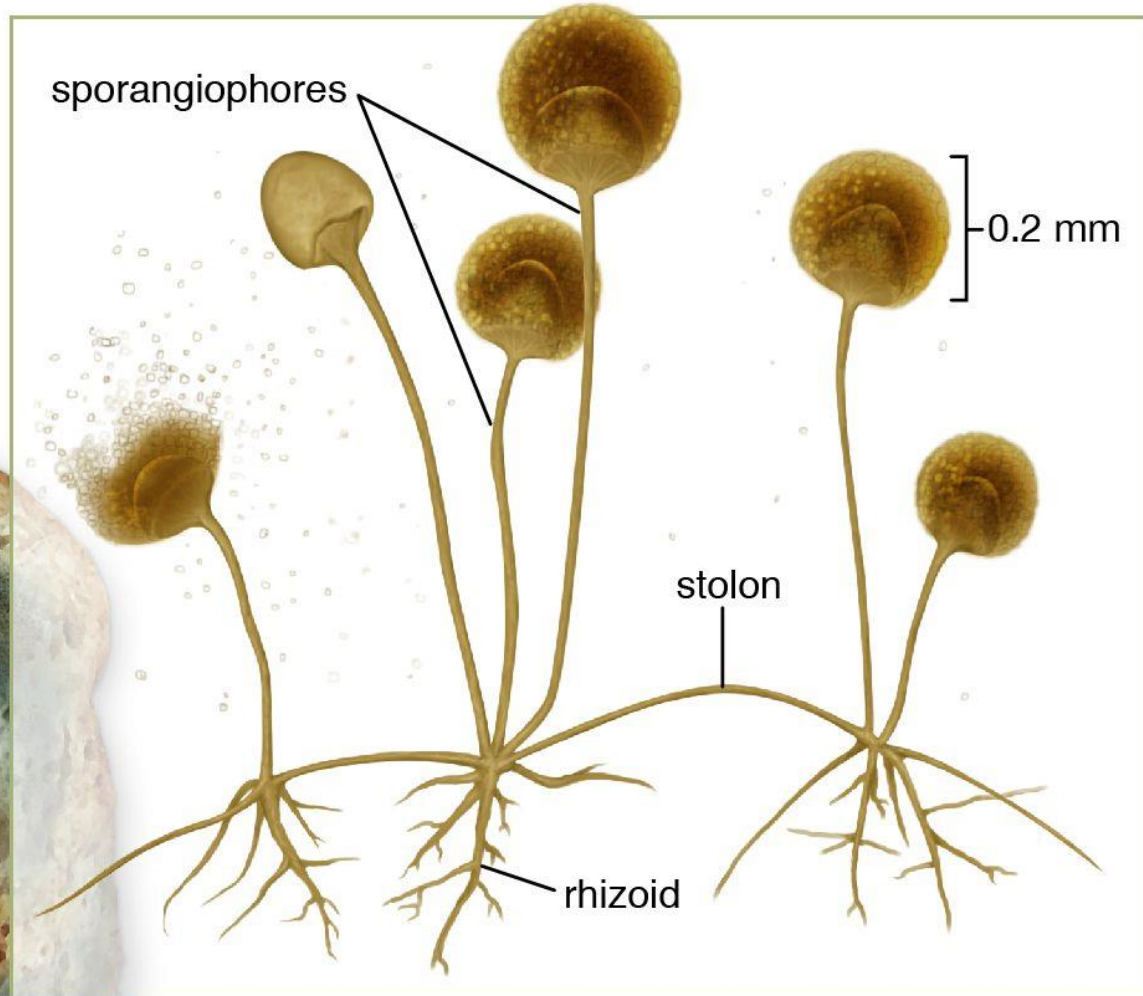
Next Lecture

Class Ascomycota

Questions and Comments?