# Zygomycetes

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The zygomycota are fast growing fungi with primitive coenocytic (mostly aseptate) hyphae. Asexual sporangiospores contained in sporangia borne on simple or branched sporangiophores. Sexual reproduction is isogamous producing a thickwalled sexual resting spore called a zygospore.



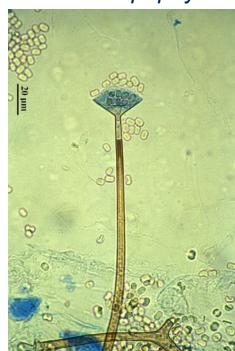
Zygospore of Rhizopus homothallicus



# Apophysomyces elegans

Sporangia have a distinctive funnel-shaped apophyses, columellae, and a conspicuous pigmented sub-apical thickening which constricts the lumen of the sporangiophore below the apophysis.

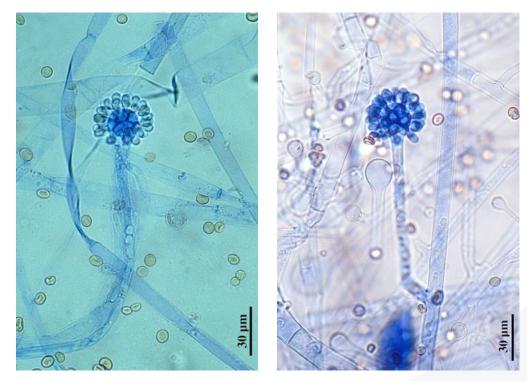






# **Cunninghamella bertholletiae**

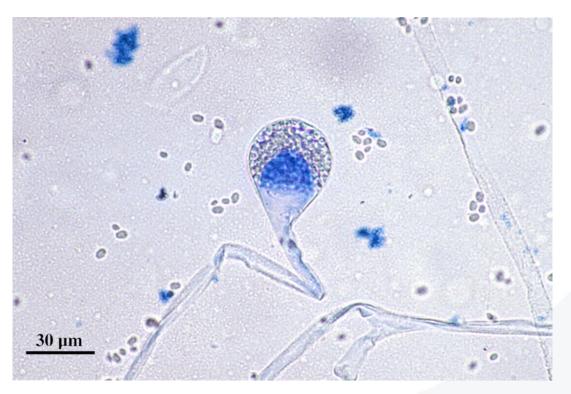
Simple sporangiophores forming a swollen, terminal vesicle around which singlecelled, globose to ovoid sporangiola develop on swollen denticles.





# Lichtheimia corymbifera

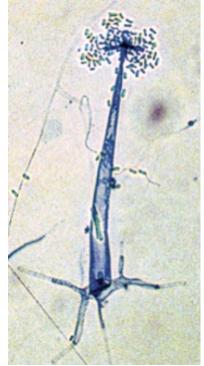
Small pyriform-shaped sporangia with a characteristic conicalshaped columellae and pronounced apophysis.

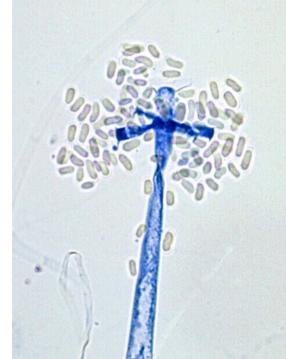




#### Mortierella wolfii

Rapid growth at 40C (thermotolerant), characteristic delicate acrotonous (terminal) branching sporangia without columellae and rhizoids.

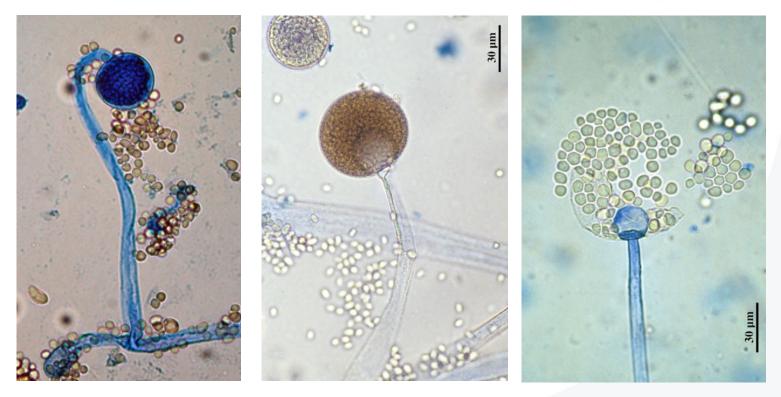






#### **Mucor species**

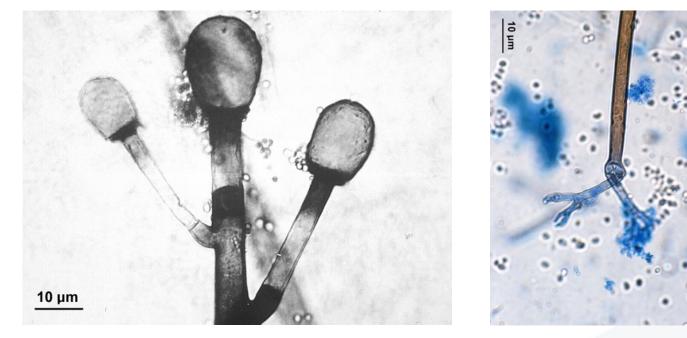
Large, spherical, non-apophysate sporangia with pronounced columellae and conspicuous collarette the base of the columella following sporangiospore dispersal.



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## **Rhizomucor** pusillus

Growth at 45C (thermophilic), poorly developed stolons and rhizoids, branching sporangiophores with a septum below the sporangium, dark-coloured sporangia without apophyses and smooth-walled globose to subglobose sporangiospores.





## **Rhizopus species**

The genus is characterized by the presence of stolons and pigmented rhizoids, the formation of sporangiophores, singly or in groups from nodes directly above the rhizoids, and apophysate, columellate, multispored, generally globose sporangia.







#### Saksenaea vasiformis

Unique flask-shaped sporangia, failure to sporulate on primary isolation media.







## Syncephalastrum racemosum

Sympodially branching sporangiophores with terminal vesicles bearing merosporangia.

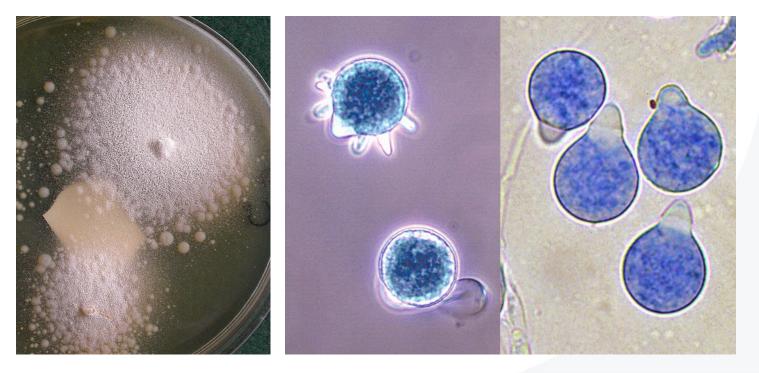






#### **Conidiobolus coronatus**

Forcibly discharged conidia with hair-like appendages (villae) and prominent papillae.



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#### **Basidiobolus ranarum**

Culture displaying satellite colonies that are often formed by germinating conidia ejected from the primary colony, "beaked" zygospores, conidia and a sporophore with a distinct swollen area just below the conidium.

