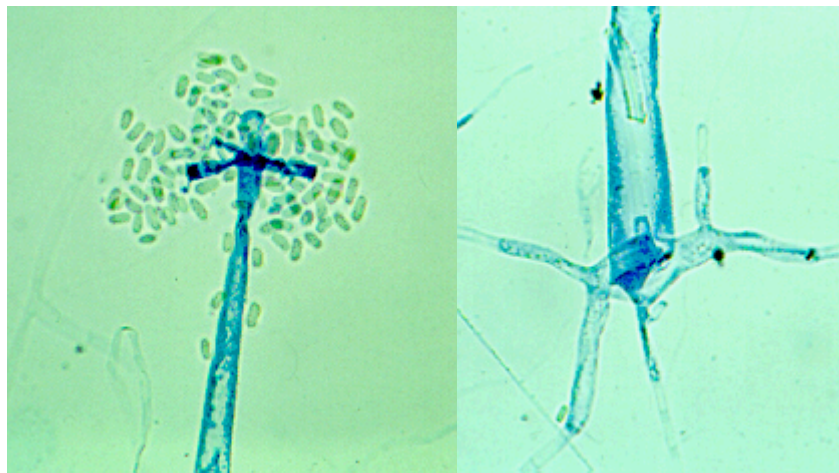


Mold of the Month March 2010

Mortierella wolfii.



Culture of *Mortierella wolfii*.



Macroconidia of *Mortierella wolfii*.

Colony Description

Cultures are fast growing, white to greyish white, downy, often with a broadly zonate or lobed (rosette-like) surface appearance and no reverse pigment. Sporangioophores are typically erect, delicate, 80-250 μm in height, 6-20 μm wide at the base, arising from rhizoids or bulbous swellings on the substrate hyphae and terminating with a compact cluster of short acrotonous (terminal) branches. Sporangia are usually 15-48 μm in diameter, with transparent walls and a conspicuous collarette is usually present following dehiscence of the sporangiospores. Columella are generally lacking and sporangiospores are single-celled, short-cylindrical, 6-10 x 3-5 μm , with a double membrane. Chlamydoconidia with or without blunt appendages (amoeba-like) may be present. Zygospores have not been observed. Temperature: grows well at 40-42C; maximum 48C. RG-2 organism.

Microscopic Morphology

The genus *Mortierella* has been placed in a separate family, the Mortierellaceae, and is characterized by grey to yellowish grey, rapidly growing colonies that produce small delicate sporangia lacking a columella, on simple or branched sporangiophores. Sporangia may be one-spored or multi-spored and a collarette is typically left after the sporangial wall dissolves. Sporangiospores are one-celled, globose to ellipsoidal and chlamydoconidia may also be present.

Ecology

Mortierella species are common soil fungi and the genus contains over 70 recognized species, however, *M. wolfii* is probably the only pathogenic species to man and animals.

Health Effect

Mortierella wolfii is an important casual agent of bovine mycotic abortion, pneumonia and systemic mycosis in New Zealand, Australia, Europe and USA. Confirmed human infections have not been documented. *M. wolfii* has also been isolated from soil, rotten silage, hay and coal spoil tips.