

Nomenclatural novelties : Paul M. Kirk

**Backusellaceae** K. Voigt & P.M. Kirk, fam.nov.

**IF550011**

Sporangiophores arising from aerial hyphae or directly from the substratum mycelium, simple or sympodially branched, curved when young, erect at maturity (transitorily recurved). Sporangia terminal, multi-spored, deliquescent-walled; some species also forming lateral, uni-spored or few-spored, pedicellate, persistent-walled, sporangiola. Zygospores with opposed suspensors.

Holotype: *Backusella* Hesselt. & J.J. Ellis 1969.

Saprobies in soil. Important biotransforming and food fermenting agents, but also clinically relevant pathogens of plants, animals and humans. Cosmopolitan.

**Lentamycetaceae** K. Voigt & P.M. Kirk, fam.nov.

**IF550009**

Colonies slowly growing, 1-3 mm high without a host, galls formed on susceptible mucoralean hosts. No growth above 30 °C; mesophilic. Hyphae composed of white or ochraceous, thin-walled, branched hyphae. Subaerial hyphae with irregular, sucker-like branches. Stolons and rhizoids produced. Sporangiohores simple or branched, single, not in whorls, curved to circinate, with a subsporangial septum. Sporangia globose to obpiriform, apophysate, wall deliquescent, usually leaving a prominent collar around the columella. Columella more or less globose, smooth, without apical projections. Sporangiospores hyaline, ovoid or slightly cylindrical, smooth-walled, relatively small. Zygospores globose to hemispherical, brown, wall ornamented (warted), with opposed suspensors equal in size and without appendages. Predominantly homothallic.

Holotype: *Lentamyces* Kerst. Hoffm. & K. Voigt 2008.

Saprobies in soil. Cosmopolitan.

**Rhizopodaceae** K. Voigt & P.M. Kirk, fam.nov.

**IF550010**

Sporangiophores arising either opposite rhizoids or directly from the substratum, simple or branched, several times dichotomously branched, sometimes terminated by an umbel of globose, apophysate, fugacious, columellate and multi-spored sporangia, sometimes forming a secondary umbel that branches dichotomously, one branch terminating in a sporangium and other in a sterile spine; stolons produced; rhizoids typically abundant, formed near the base of the sporangiophores. Sporangia apophysate, multi-spored or few-spored, with an evanescent wall with surface cracks at maturity revealing a dry, grayish, spore-mass; when mature the columella often collapsing over the apex of the sporangiophore, occasionally forming abortive sporangia that may or may not form abortive sporangiospores (cf. *Amylomyces*). Sporangiospores variously shaped (globose to ellipsoid), wall often striate or spinose or granulate. Chlamydospores formed in the vegetative hyphae, variously shaped. Zygospores with a pigmented, ornamented, rough wall on more or less equal, opposed, non-appendaged suspensors. Heterothallic and homothallic.

Holotype: *Rhizopus* Ehrenb. 1821.

Saprobies in soil, especially in sandy rhizosphere of deciduous trees (*Betula*, *Larix*). Cosmopolitan.