Karlingiomyctaceae Doweld, fam.nov.

Thallus interbiotic, monocentric, eucarpic; sporangium developed from the encysted zoospore or more rarely from the germ tube of the zoospore, forming one to several discharge papillae, each surmounted by a distinct exo-operculum. Rhizoidal system with several main branching rhizoidal axes, arising at different points on the sporangium. Zoospores spherical, posteriorly uniflagellate, microtubular roots and flagellar plug lacking, with a single lipid globule located near the kinetosome, partly surrounded by microbody, lacking rumposome or surrounding membrane; ribosomes aggregated with the mitochondria and nucleus; non-flagellated centriole long, with a veil, attached to the kinetosome with densely staining material throughout its length. Resting spore walls thickened, laevigate to rugose or ornamented with pegs or spines.

Holotype: *Karlingiomyces* Sparrow 1960.