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Immunology of the emerging human fungal pathogen *Pseudallescheria boydii*

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The dramatic increase of severely immunocompromised patients in the last 30 years coincides with a growing number of reported fungal infections especially human immunodeficiency virus (HIV), bone marrow and solid organ transplantation and those receiving cytotoxic chemotherapy for neoplastic diseases. Novel fungal pathogens emerging in recent years such as *Scedosporium* spp. have caused morbidity and mortality in immunocompromised patients. At present, very little is known about the interaction of emerging human pathogenic fungi such as *Pseudallescheria boydii* (= *Petriellidium boydii* (Shear) Malloch 1970) and cells of the immune system. Due to lack of highly accurate diagnostic techniques for tracking activity of fungal biomass within the host innate immune cells, previously developed specific MAbs raised to *P. boydii* would allow the detection of circulating antigens and quantification. The interactions of clinical and environmental strains of *P. boydii* with alveolar macrophages, front-line effector cells of innate immunity were examined by developed immunoassays that would allow the visualisation and quantification of the pathogen during the process of macrophage phagocytosis and quantification of the effects of antifungal drug treatments on hyphal activity.

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