

## Infection models for virulence tests of zygomycetes

Suitable infection models are a prerequisite to study the virulence and pathogenicity of fungal pathogens. *In vitro* models are used to study the interaction between the fungus and different cell lines (e.g. macrophages, epithelial cells) to understand how the fungus survives in the host and damages tissue. While these models are useful to study specific interactions they do not provide the complex environment and interactions found in the host. Thus, additional and more complex infection models are necessary to investigate some scientific questions. We have established an alternative infection model for Mucormycosis in embryonated chicken eggs. Although this model is less comparable to the situation in human hosts than mouse models they provide a complex environment including e.g. phagocytic cells. For certain scientific questions, mouse infection models are inevitable. We are developing an intranasal mouse model for *Lichtheimia* species as a representative for mucormycosis infections in cooperation with the research group Microbial Immunology. This model will not only be used to understand pathogenesis of *Lichtheimia* species but also to investigate the virulence of different *Lichtheimia* species and strains as well as the effect of different risk factors on the outcome of infections.

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