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How a disease-causing fungus escapes the human immune system.

Joint discovery published by researchers from several InfectoOptics projects.

A new virulence mechanism: The human pathogenic fungus *Aspergillus fumigatus* alters phagolysosome membranes of host immune cells.

Researchers from the two InfectoOptics projects, HoT-Aim and BLOODi, combined their expertise and discovered a virulence mechanism that the human pathogenic fungus *Aspergillus fumigatus* has evolved due to the human immune response.

A specific group of proteins, flotillins, are important for the organization of microdomains in phagolysosomal membranes of macrophages, called lipid rafts. Lipid rafts are required for the assembly of vATPase and NADPH oxidase. Conidia of the human pathogenic fungus *Aspergillus fumigatus* dysregulate the assembly of flotillin-dependent lipid rafts in the phagolysosomal membrane, allowing them to escape phagolysosomal digestion.

[Read more about this in the original publication.](#)

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