**MICROBIOLOGY 3**

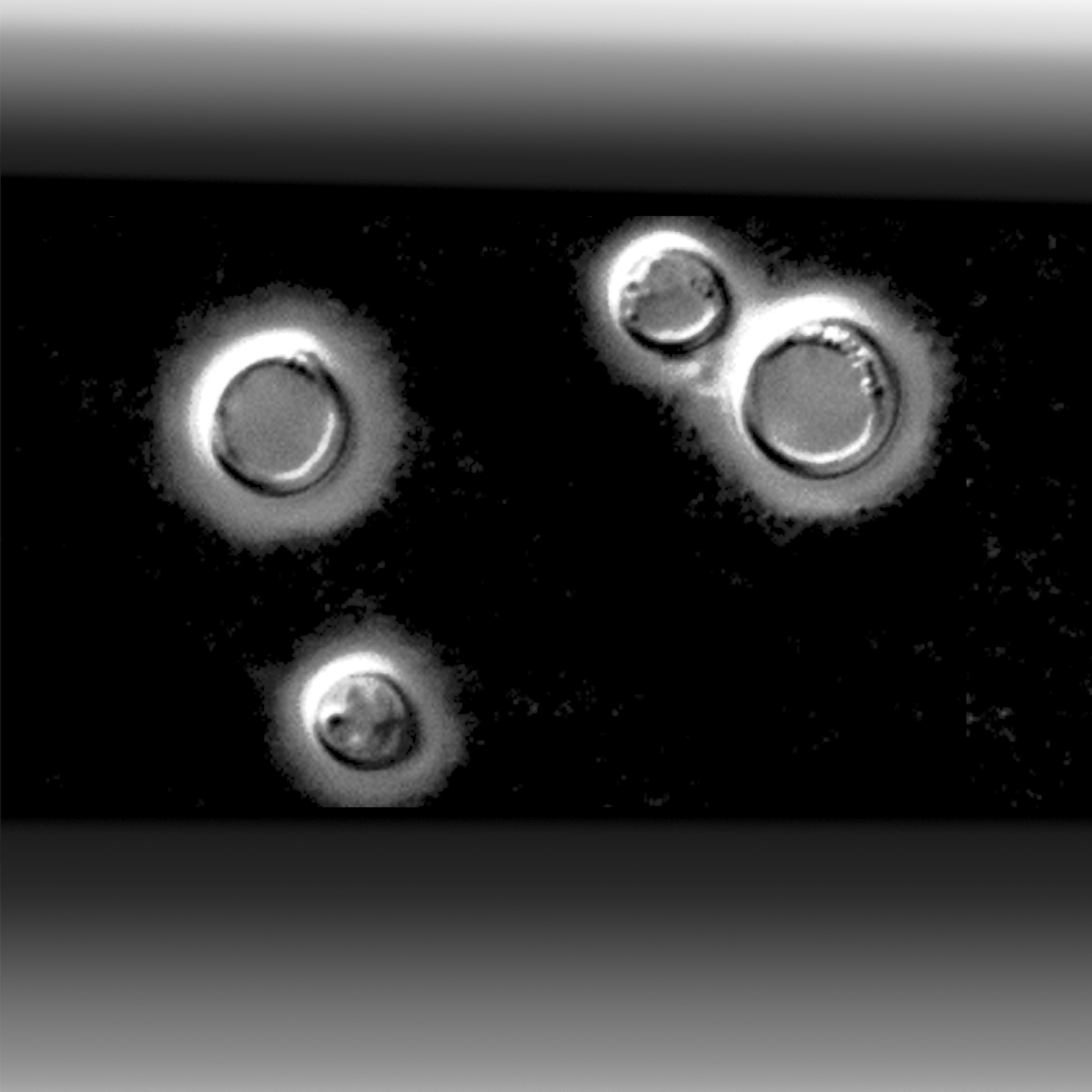
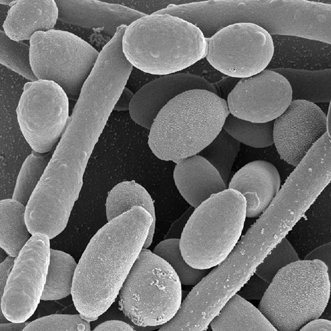
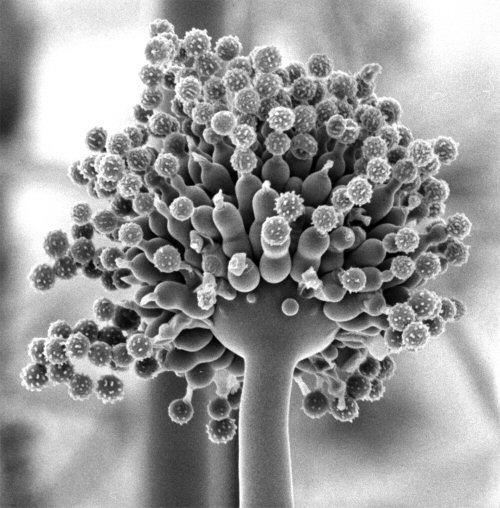
**IMMUNITY TO FUNGAL INFECTIONS**

**Dr Elaine Bignell**

**Learning objectives:**

Following this lecture you should be able to:

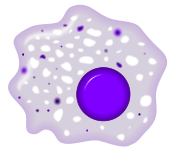
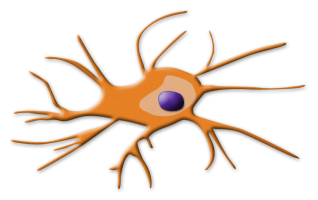
1. Name the major antifungal immune effector cells
2. Describe 2 mechanisms of cell-mediated antifungal defence
3. Summarise the sequence of events leading to effective clearance of infectious fungal cells
4. Understand how immune status determines risk of fungal infection



Questions to consider:

How does the healthy host defend against:

1. Airborne fungal pathogens?
2. Fungal commensals?



Which host cells are important for defence against fungal infection?

How do innate immune responses protect against *Aspergillus fumigatus* infection?

How do innate immune responses protect against *Candida albicans* infection?

How do innate immune responses protect against *Cryptococcus neoformans* infection?

How do the following risk factors promote susceptibility to infection:

1. Immunocompromise
2. Surgery
3. Hereditary defects

What antifungal functions are performed by:

1. Macrophages
2. Neutrophils
3. Dendritic cells

How is adaptive immunity to fungal pathogens orchestrated?

How does adaptive immunity impact the host-commensal relationship?