Chitinases in Invasive Fungal Infections

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1. Host chitinases are produced in response to challenge by chitin containing pathogens and skew the immune response of the host (this thesis).

2. When challenged by Aspergillus fumigatus the immunocompromised host is able to produce increased levels of cytokines and chemokines, which play a role in the clinical outcome of the fungal challenge (this thesis).

3. Polymorphisms in the genes for chitinases may be associated with the risk of contracting (invasive) fungal infections (this thesis).

4. Caspofungin in combination with other antifungal agents should be considered for the primary treatment of invasive pulmonary aspergillosis, not only as salvage therapy (this thesis).

5. Mass spectrometry like MALDI TOF-MS is able to separate and identify closely related species of fungi that are morphologically identical (this thesis).

6. Experimentation on drug interactions using different methodologies can lead to conflicting results and opposite conclusions. (Odds, J Antimicrob Agents 2003. 52:1)

7. In animal experiments, the animal species and strain, the type of anesthesia and the route of infection all influence study outcomes. These factors seriously hinder direct comparisons of outcomes from different models.

8. Decreasing the risk of a type I error, increases the risk of a type II error. This limits the statistical power of a test. (Armstrong, Ophthalmic Physiol Opt. 2014. 34(5):502-508)


10. Interval training results in better performance in the marathon. (Hamstra-Wright, J Strength Cond Res 2013. 27(10):2828-2835)

11. Without the help of our fungal friends, a night on the town would be far less pleasant.

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