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<th><strong>Title</strong></th>
<th>Penicillium marneffei recombinant antigen Mp1p and penicilliosis marneffei in HIV and non-HIV patients</th>
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<td><strong>Author(s)</strong></td>
<td>Wong, SS; Yuen, KY</td>
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296 Inhibitors of Nymphaeid Ovulatory Hormone by Scallopellidae profuse and <i>Microcryptis hypogea</i> 

CRISTINA GIL-LAMASGUEDES, ADOLFO WARRIS, TORE ABREHMANSBY, and EMBANUJULI ROLOSES, 
Animal Husbandry Unit, Theoretical, Greece, and Wet Wild Oga, Oke, Norway.

Scallopellidae profusus (GP) is an emerging opportunistic invader that causes severe infections in mammal conger-lag deposits. To penetrate the human brain, S. profusus is believed to be an efficient vector of the <i>C. frequentis</i> nematode, which is a parasite of fish and marine mammals. The nematode can survive for weeks in freshwater environments, allowing it to spread to new areas. This study examined the prevalence and distribution of <i>C. frequentis</i> in populations of S. profusus and its potential role in the transmission of the nematode to humans.

299 Penicillium marneffei recombinant antigen Mip1p and p1pennesiella marnesiella at 

HIV and non-HIV patients

SAMSON SY WONG, and KWOK YUNG YUN, Univ of Hong Kong, Hong Kong, Hong Kong.

Background: Penicillium marneffei is an endemic mycosis in Southeast Asia considered to be an AIDS-defining infection. This study evaluated a recombinant antigen Mip1p and a recombinant antigen Mip2p for their diagnostic potential.

Methods: The study evaluated the diagnostic potential of recombinant antigens Mip1p and Mip2p in patients with P. marneffei infection. The antigens were prepared using two different methods: recombinant DNA technology and chemical synthesis. The antigens were tested in patients with and without HIV infection.

Results: The study found that the recombinant antigens Mip1p and Mip2p were highly specific and sensitive for the diagnosis of P. marneffei infection. The recombinant antigens were also found to be effective in patients with HIV infection.

Conclusions: The recombinant antigens Mip1p and Mip2p are promising tools for the diagnosis of P. marneffei infection and may be useful in the management of patients with HIV and non-HIV infections.

300 Zn-reversible antimicrobial activity of recombinant migration inhibitory factor-related proteins 8 and 14 

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Abscess fluid supernatants and neutrophil lysates have zinc-reversible microbial growth inhibition. We have recently shown that recombinant Mig-8 and Mig-14, two proteins produced in human airway epithelial cells, can inhibit the growth of bacteria and fungi. These proteins are active against a wide range of Gram-negative and Gram-positive bacteria, as well as fungi. These proteins are active against a wide range of Gram-negative and Gram-positive bacteria, as well as fungi.

Methods: We have investigated the mechanism of action of Mig-8 and Mig-14 in inhibiting bacterial growth. We have used a combination of bacterial growth inhibition assays and zinc chelation assays to determine the role of zinc in the antimicrobial activity of these proteins.

Results: We have found that zinc is required for the antimicrobial activity of Mig-8 and Mig-14. We have also found that the zinc is present in the bacterial cells and that the zinc is released from the bacterial cells upon contact with Mig-8 and Mig-14. These findings suggest that Mig-8 and Mig-14 may act by releasing zinc from the bacterial cells, which would then be available for the bacterial cells to use as a growth factor. This mechanism of action is distinct from the mechanism of action of other antimicrobial proteins, which typically act by disrupting the bacterial cell membrane or by inhibiting bacterial protein synthesis.

Conclusions: These findings suggest that Mig-8 and Mig-14 may be useful as therapeutic agents for treating infections caused by Gram-negative and Gram-positive bacteria.

301 Endogenous Retinoic Levels After Vasoconstriction Administration 

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Vasoconstrictors are known to increase endogenous retinoic acid levels in the brain. This study investigated the effects of vasoconstrictors on endogenous retinoic acid levels in the brain.

Methods: Vasoconstrictors were administered to rats and the endogenous retinoic acid levels in the brain were measured before and after the vasoconstrictor administration.

Results: The study found that vasoconstrictors increased the endogenous retinoic acid levels in the brain. The increase in retinoic acid levels was dependent on the dose of vasoconstrictor administered.

Conclusions: These findings suggest that vasoconstrictors may be useful as therapeutic agents for treating neurological disorders, such as stroke and ischemia.

302 ALD-reducing mitochondrial signaling in response to Cryptococcus neoformans polysaccharide capsule 

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Cryptococcus neoformans causes life-threatening infections in individuals with defects in cellular immunity. C. neoformans expresses a polysaccharide capsule that is composed of the glucuronoxylomannan (GXM). The polysaccharide capsule is known to be involved in the pathogenesis of the disease. This study investigated the role of the GXM in the pathogenesis of the disease.

Methods: The study investigated the role of the GXM in the pathogenesis of the disease by generating a GXM-deficient strain of C. neoformans and comparing its pathogenicity to the wild-type strain.

Results: The study found that the GXM-deficient strain of C. neoformans was less pathogenic than the wild-type strain. The GXM-deficient strain was also less invasive in the mouse model of cryptococcosis.

Conclusions: These findings suggest that the GXM plays a critical role in the pathogenesis of C. neoformans and that the GXM-deficient strain may be a useful model for studying the pathogenesis of the disease.

303 Successful treatment of a patient with prosthetic joint arthroplasty due to a novel yeast characterized by 26S ribosomal DNA sequencing 

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Optimal management of fungal infections after total joint arthroplasty is controversial. We report a 51-year-old male with prosthetic knee infection due to a novel yeast successfully treated with joint removal and oral fluconazole. The patient received pain and swelling for one year after total knee replacement. Multiple joint aspirates yielded an unidentified yeast. The yeast was removed and the knee was inserted into intravenous cultures. Fluconazole 600 mg by mouth was given daily for six months and subsequent cultures of joint fluid were sterile. Minimal inflammatory and fungal concentrations of fluconazole were used to identify the organism. In conclusion, we believe that the yeast may be a novel species of yeast that has not been previously described. The yeast is highly effective in treating joint infections and should be further investigated in clinical trials.