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<tr>
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<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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Inhibition of Nymphaea Odorata Leaves by Scalpellum pinnatifidum and Jangkong Jangkeペンシルリア
CHRISTINA G. LAMAGESSER, ADOLPH WARR, TERENCE A. HAMPTON, and EDMUND I. BOLDRE.
Center for Underwater Technology, Thompsonia, Greece, and the Irish Skip Oil Co., Dublin, Ireland.
Scalpellum pinnatifidum (OPP) is an emerging opportunistic invader that causes severe infections in marine opportun- 
estic host. The aim of this study was to examine the effect of human serum albumin (HSA) on the viability of S. pinnatifidum and J. angustifolius. The results showed that S. pinnatifidum was more sensitive to HSA than J. angustifolius, with a 50% lower viability at 37°C in 30 for both species. The inhibition of J. angustifolius was more pronounced, with a 40% decrease in viability at 37°C in 30 for both species.

PMN Only SP AF
0.84 α Uncontrolled PMNs 0.57 α 0.95
Oxidized PMNs 0.21 0.25 1.6
PMN Plus SP Sup 0.01 0.74 0.65
Sup 0.1 0.97 0.70
PMN + FMLP Sup 0.1 0.8 1.0
Sup 0.1 1.35 1.0

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Toll-Like Receptors mediate intracellular signaling in response to Cystosporozoa diarrhea polymorphonuclear cells.
SHUKRI ALI, CHAO HUANG, J. W. WEN, CHEN, DOUGLAS T. GOLDBOCK, and LEVITZ M. STUART.
Boston Univ Sch of Medicine, Boston, MA.
C. scolyosporosis causes life-threatening infections among individuals with defects in cellular immu-
nity. Cryptococcus polyrhizosporus, an organism morphologically similar to C. scolyosporosis, was shown to be a virulent organism that can infect human hosts. We investigated the role of Toll-like receptors (TLRs) in the interaction between C. scolyosporosis and human bone marrow-derived monocytes. TLR4-deficient monocytes were incubated with C. scolyosporosis and analyzed by flow cytometry. Our results showed that TLR4 expression was increased in the presence of C. scolyosporosis, and that the activation of NF-κB was dependent on the expression of TLR4.

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Successful treatment of a patient with postethotic joint arthroitis due to a novel yeast characterized by 26S ribosomal DNA sequencing.
LAURA L. GIBSON, CLETUS P. KURTZMAN, JUDY A. WESTBERG, and JENNIFER S. DAILY.
UMMC Medical School, Rochester, MN, USA.
Optimal management of fungal infections after total joint arthroplasty is unknown. We report a 51-year-old man with postethotic joint arthroitis due to a novel yeast successfully treated with joint removal and oral fluconazole. The patient survived and was well for one year after treat-
ment. Multiple joint aspirates yielded an unidentified yeast. The joint was removed and the joint was infected with intravenous injection. C. albicans 600 mg by mouth was given daily for six months and subsequent cultures of joint fluid were sterile. Minim-
imal inflammatory and fungal concentrations of Fluconazole against the organism were both 8.0 μg/mL. Serum fluconazole concentrations were >10 μg/mL at seven days. The patient received a second postethotic joint two months after finishing therapy. One year later, he re-
mained asymptomatic with a functional knee. The novel yeast antigen was grown on blood and cho-
ocolate agar after twenty-four hours of incubation. Subcultures grew on emmended Modified Sab-
ouraud glucose agar, fungi were isolated from the patient's joint containing cyclosporine. V8 juice agar at yeast malt agar, but not on brain heart infusion agar. Commercial yeast identification systems were unable to identify the organism, but showed that it assimilated glucose, glycerol, mycophenyl-
itol, adonitol, xylose, rhamnose, cellobiose, trehalose. The organism was able to assimilate nitrate, but was unable to hydrolify urea. It produced red to oval blastoconidia but no hyphae, pathognomonic of C. albicans. It was resistant to large subunit (26S) ribosomal DNA showed sequence divergence of ≈1% from related yeasts, indicating a novel species. The isolate was most closely related to Pichia angustata, differing by seven nucleotides. Final identification and designation of this yeast as a new species in the genus Candida or Pichia depends on tests now underway to determine its phylogenetic placement in the genus. Our case illustrates the successful treatment of postethotic arthritis due to a novel yeast using joint removal and oral Fluconazole.

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Penicillium marneffei recombiant antigen Mlp1p and penicillcin marnesi is to HIV- and non-HIV patients.
SAMSON SY WONG, and KWOK YUN YUEN, 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. A recombinant antigen Mlp1p is a P. marneffei-specific mannose-6-phosphate.
Objectives: The clinical features of the infection in HIV and non-HIV patients are com-
pared and the role of Mlp1p-based serological test in two of these groups of patients was studied.
Methods: Patients with culture-documented penicillcin marnefiei from 1994 to 1999 were included. Detection of P. marnefiei antigen (Mlp1p) and antibody in serum was performed using an ELISA test with plates coated with gumes pig anti-Mlp1p and antibody Mlp1p by respectively. Clinical and laboratory characteristics of the patients were compared between the HIV and non-HIV patients. Results: 15 cases were available for analysis. HIV positive cases (8) were more likely to have fumacina than non-HIV cases (7). The latter often reported tissue biopsy for diagnosis. There was a significant delay in making a diagnosis in non-HIV cases: 1.6 wk to 5.2 wk (mean). Penicillcin marnefiei-
related mortality was 1. The Mlp1p antibody titers increased 30 days (mean) before the day of positive culture. In the absence of relapse, the mean antibody remain-
nof for over 1000 days. HIV cases had a higher antigen titer and a lower antibody titer, while the converse is true in non-HIV cases. Conclusions: Except in case, non-HIV cases were more likely to have secondary infections. 26.6% of non-HIV cases didn't have fumacina at presentation. The major problem associated with the use of polyclonal antibodies or antigens in diagnosis is that the antigen is specific to Monoclonal antibodies and antibodies are preferable. The Mlp1p gene is highly specific for P. marnefiei. Mlp1p-based antigen and antibody assay is a useful adjutant to the diagnosis of penicillcin marnefiei.

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Zinc-reversible antimicrobial activity of recombinant migration inhibitory factor-related proteins 8 & 14.
PETER G. SOHMLE, MICHAEL J. HUNTER, BETH L. HAHN, and WALTER J. CHAZIN.
Cavus Inc., San Diego, CA, Medical Coll of Wisconsin, Milwaukee, WI, Medical Coll of Wisconsin & the VA Medical Ctr, Milwaukee, WI, and Vanderbilt Univ, Nashville, TN.
Abscess fluid supernatants and neutrophil lysates have zinc-reversible microbial growth inhibition. We investigated the inhibition of Staphylococcus aureus growth by a calcium and zinc-binding protein called the migration inhibitory factor-related proteins 8 and 14 (MIP 8 & 14) or calprotectin. In this study recombinant MIP 8 and MIP 14 chains were tested for antim-
microbial activity in a Candida albicans growth inhibition assay. Both chains contain HXH HXH-binding sites and might be expected to manifest zinc-reversible antimicrobial activity — to that of the native protein complex. When tested alone, neither MIP 8 nor MIP 14 showed activity in the assay. Growth was completely inhibited by addition of zinc at 30 μM. A truncated form of MIP 14 (missing the C-terminal GHHHRPCGLOGST tail) was used in combination with MIP 8 demonstrated zinc-reversible activity somewhat less than that with complete MIP 14. These results suggest that a heterodimer of MIP 8 and MIP 14 is necessary to form a zinc-binding site capable of inhibiting microbial growth and that the HHH containing MIP 14 tail is of lesser significance to this activity.

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Endogenous Retroviral Elements After Varicellavirus Administration.
KONRAD E TOMASZESKI, LYNN PURKINS, MAE CLEMENTS, and HARKAN T SCHLAMM.
Filer Core Research, New York, NY, and Pfizer Inc, New York, NY.
Varicella-zoster is a neurotropic antiviral agent with potential broad spectrum applications. Adverse reactions in patients receiving V for treatment of fungal infections include rash (10%-25%) and herpetic (10%) lab. In 10% of cases, skin ulcers and chest wall pain were noted. A possible mechanism that inhibition of replication of varicella performed in vitro.

Time (hrs) Phacocin (μg) Varicazol (μg)
0 1.5±0.1 1.5±0.1
1 1.6±0.3 2.0±0.3
2 1.7±0.3 2.5±0.3
3 1.8±0.3 2.5±0.3
4 1.5±0.3 1.5±0.3
5 1.5±0.3 1.5±0.3