Vaccine for Fungal Infections

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WARF: P130116US02
View U.S. Patent No. 9,993,534 in PDF format.

The Wisconsin Alumni Research Foundation (WARF) is seeking commercial partners interested in developing a vaccine containing calnexin protein that protects against many pathogenic fungi.

OVERVIEW

There are no commercial vaccines against fungi. Infections like aspergillosis and Valley Fever can be life-threatening, particularly in immune-compromised patients. These patients also are more vulnerable to fungal strains that flourish in hospitals and cause grave illness. Treating infections can cost many thousands of dollars and is much harder on patients than similar antibacterial regimens.

The fungi kingdom includes molds, yeasts and more than 100,000 known species. A new anti-fungus vaccine, especially one that protects against many strains, would be tremendously beneficial both to human and animal health.

THE INVENTION

UW–Madison researchers have developed a vaccine that could prevent infection by many strains of pathogenic fungi.

The vaccine contains calnexin, a common folding protein found in fungi and other eukaryotes. Administered in an effective amount, the vaccine helps a patient’s immune system recognize and destroy fungus it may encounter.

APPLICATIONS

• Vaccine against dimorphic and non-dimorphic fungi (including Histoplasma, Coccidioides, Paracoccidioides, Penicillium, Blastomyces, Sporothrix, Aspergillus, Pneumocystis, Magnaporthe, Exophiala, Neurospora, Cryptococcus, Schizophyllum and Candida)

THE WARF ADVANTAGE

WARF: A Leader in Technology Transfer Since 1925 Since its founding as a private, nonprofit affiliate of the University of Wisconsin–Madison, WARF has provided patent and licensing services to UW–Madison and worked with commercial partners to transform university research into products that benefit society. WARF intellectual property managers and licensing staff members are leaders in the field of university-based technology transfer. They are familiar with the intricacies of patenting, have worked with researchers in relevant disciplines, understand industries and markets, and have negotiated innovative licensing strategies to meet the individual needs of business clients.

The University of Wisconsin and WARF – A Single Location to Accelerate Translational Development of New Drugs UW–Madison has the integrative capabilities to complete many key components of the drug development cycle, from discovery through clinical trials. As one of the top research universities in the world, and one of the two best-funded universities for research in the country, UW–Madison offers state-of-the-art facilities unmatched by most public universities.

These include the Small Molecule Screening Facility at the UW Comprehensive Cancer Center; the Zeeh Pharmaceutical Experiment Station, which provides consulting and laboratory services for developing formulations and studying solubility, stability and more; the Waisman Clinical Biomanufacturing Facility; the Wisconsin Institute for Medical Research, which provides UW–Madison with a complete translational research facility; and the innovative, interdisciplinary Wisconsin Institutes for Discovery, home to the private, nonprofit Morgridge Institute for Research and its public twin, WID, part of the university’s graduate school. The highly qualified experts at these facilities are ready to work with you to create a library of candidates for drug development.
KEY BENEFITS

- Protects against a wide variety of pathogenic fungi
- Effective for animals and humans

STAGE OF DEVELOPMENT

The vaccine has been shown to protect mice from blastomycosis and a number of different pathogenic fungal strains.

ADDITIONAL INFORMATION

Related Portfolios
Technologies for Potential Startup Companies

Related Technologies
WARF reference number P06029US describes strains of dimorphic fungi useful in vaccine development because they do not become virulent.
WARF reference number P110280US02 describes a diagnostic kit for blastomycosis.

Tech Fields
Pharmaceuticals & Vitamin D - Vaccines

CONTACT INFORMATION

For current licensing status, please contact Mark Staudt at mstaudt@warf.org or 608-960-9845.