

## **Azitra Receives Ongoing Support for its Netherton Development Program from the National Science Foundation (NSF)**

### **-- Phase II Grant to Advance Development of Live Biotherapeutic Product Candidate for Netherton Syndrome --**

**FARMINGTON, CT (April 9, 2019):** [Azitra, Inc.](#) today announced that the company has been awarded a Phase II Small Business Innovation Research (SBIR) grant (#1853071) of \$719,700 from the National Science Foundation (NSF). This grant will support the advanced development of AZT-02 for treating the rare genetic skin condition, Netherton syndrome (NS). AZT-02 is a topical ointment composed of a proprietary strain of *Staphylococcus epidermidis* (SE), a bacterium naturally found in the skin microbiome. The product candidate is engineered to secrete therapeutic levels of LEKTI, an essential protein missing in newborns affected by NS.

The new grant will expand research previously supported by a Phase I Small Business Technology Transfer (STTR) grant from NSF and a Phase I SBIR Award from the National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS) of the National Institutes of Health (NIH). Principal investigators on the grant are Azitra's Founder and Chief Scientific Officer, Travis Whitfill, MPH, and [Julia Oh, Ph.D.](#), a skin microbiome expert at [The Jackson Laboratory \(JAX\)](#), an independent, nonprofit biomedical research institution.

"We are very pleased to receive ongoing support from NSF for the development of AZT-02," said Mr. Whitfill. "This program is not only intended to meet the needs of patients with a severe, unmet medical need, but is also designed to confirm the promise of the Company's core technology: the use of microbiome-based systems to deliver therapeutic proteins to the skin."

NS is a genetic disorder that results from mutations in the *SPINK5* gene, which is responsible for making the LEKTI protein. LEKTI is a protease inhibitor essential for controlling the rate of skin shedding. When LEKTI is absent, NS patients suffer rapid and uncontrolled loss of skin tissue. NS affects the skin, hair and immune system and is a life-long disease challenge. Approximately 1 in 200,000 children are born with the disease and as many as 10% die in their first year of life. Complications of NS are frequent, and newborns with the disorder are at risk of becoming dehydrated and developing skin infections and/or sepsis. Patients are at risk throughout their lives of life-threatening adverse events. There are currently few treatment options for NS.

"Engineered live biotherapeutic products represent a novel approach that leverages the skin microbiome for therapeutic purposes," said Dr. Oh. "An engineered commensal skin bacterium such as *S. epidermidis* could offer important advantages over other methods of drug delivery, as it will establish residence on the patient's skin and continuously and stably deliver therapeutic proteins *in situ*. Moreover, certain strains of *S. epidermidis* are known to exhibit important,

beneficial immunomodulatory and anti-pathogen effects in the skin, which are relevant to NS disease severity.”

### **About The Jackson Laboratory**

The Jackson Laboratory ([www.jax.org](http://www.jax.org)) is an independent, nonprofit biomedical research institution with more than 2,200 employees. With a mammalian genetics institute as its headquarters campus in Bar Harbor, Maine, it has a genomic medicine institute in Farmington, Conn. and production facilities in Sacramento, Calif., and Ellsworth, Maine. Its mission is to discover precise genomic solutions for disease and empower the global biomedical community in the shared quest to improve human health. For more information, please visit [www.jax.org](http://www.jax.org).

### **About Azitra**

Azitra, Inc. is a clinical-stage biotechnology company combining the power of the microbiome with cutting-edge genetic engineering to treat skin disease. The company was founded in 2014 by scientists from Yale University and works with world-leading scientists in dermatology, microbiology, and genetic engineering to advance its consumer health and pharmaceutical programs to treat atopic dermatitis, dry skin, cancer therapy associated skin rashes and targeted orphan indications. For more information visit <http://www.azitrainc.com>.

### **About the NSF’s Small Business Programs**

America’s Seed Fund powered by NSF awards \$200 million annually to startups and small businesses, transforming scientific discovery into products and services with commercial and societal impact. Startups working across almost all areas of science and technology can receive up to \$1.5 million in non-dilutive funds to support research and development (R&D), helping de-risk technology for commercial success. America’s Seed Fund is congressionally mandated through the Small Business Innovation Research (SBIR) program. The NSF is an independent federal agency with a budget of about \$8.4 billion that supports fundamental research and education across all fields of science and engineering. For more information, visit [seedfund.nsf.gov](http://seedfund.nsf.gov).

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