LONGER LIFE FOUNDATION



Laura Marks

MD, PhD

Laura Marks MD, PhD, is an Assistant Professor in the Division of Infectious Disease at Washington University in St. Louis, Missouri, where she also serves as the medical director of the Bridge to Health Program which is an interdisciplinary clinic that provides care for patients with infectious complications of substance use disorders. Her research is focused on S. aureus infections in people who inject drugs and her group uses a combination of clinical epidemiology, translational, and laboratory approaches. She earned an MD, PhD from the University at Buffalo Jacobs School of Medicine and Biomedical Sciences, and completed her clinical training in internal medicine and infectious diseases at Barnes Jewish Hospital/Washington University in St. Louis.

From an Early Question to a Lasting Research Focus

Substance use disorder remains a major public health challenge and is associated with a growing burden of serious bacterial infections. Among people who inject drugs, *Staphylococcus aureus* is a leading cause of bloodstream infections, endocarditis, and other life-threatening complications. Dr. Laura Marks' work examines the intersection of infectious diseases, substance use disorders, and new models of integrated healthcare delivery to help improve patient outcomes.

Below, Dr. Marks shares how support from the Longer Life Foundation (LLF) has influenced her career and research efforts with infectious diseases.

How did receiving a Longer Life Foundation grant impact your career path and research focus?

The Longer Life Foundation grant was a pivotal early investment in my career. It was the first grant I received as a principal investigator, helping to launch my academic career. It enabled me to turn a research question into a funded project and begin building a focused research program. Looking back, its value went beyond financial support – it helped establish a foundation for the work I would pursue in the years ahead.

Can you describe the research project that was supported by the grant and its relevance to your area of focus?

The project focused on the etiology of *Staphylococcus aureus* bloodstream infections. We wanted to understand the role of skin colonization and develop preventative healthcare strategies to reduce the risk of recurrent infections. That early work remains relevant to my current focus on understanding the pathogenesis of invasive infections in people who use drugs. While many of my questions and methods have evolved, the underlying motivation has remained the same: understanding these infections well enough to improve care for patients.

What challenges were you facing in your research or career at the time, and how did the grant help you overcome them?

One of the challenges is finding support to develop an idea before you have an established track record. For me, the key challenge was both obtaining

preliminary data and having protected time to further evolve the idea. The Foundation's grant aided me in addressing that by helping uphold the project's laboratory work and supporting a significant amount of my time as protected research time. It provided a concrete opportunity to move the work forward at an important point in my career.

Have you seen any lasting effects of your grant-supported work in clinical practice, patient outcomes, or further research?

The clearest lasting effect has been its role in establishing the direction of my subsequent research. That initial project helped lay the groundwork for my first NIH-funded R21 grant, which has translated into further collaborations, including authorship of the recent American Heart Association scientific statement on infective endocarditis and multiple publications. Research often contributes to progress through a series of connected studies. I see this grant as an important starting point in that process and in my continued work on *Staphylococcus aureus*.

What advice would you give to early-career researchers or clinicians considering applying for a Longer Life Foundation grant?

I would encourage them to apply with a clear, focused question and discuss the project with the LLF team during the annual question and answer session. I found the resources provided by the Foundation to be critical in strengthening my overall application.

Is there anything else you'd like to share about your experience with the Foundation or how it shaped your professional journey?

I remain grateful that the Longer Life Foundation supported me at such an early stage. Because this was my first *Staphylococcus aureus* grant, it holds a special place in my professional journey. It helped me take the first steps toward an academic career and a research focus that has continued to develop over time. My experience is a reminder of how much early support can matter. A grant can fund a specific project while also helping a researcher begin a much longer body of work.

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Similar to Dr. Mark's work, grants from the Longer Life Foundation have supported hundreds of academicians and scientists engaged in fundamental research into longevity and health. If you would like to read more about these important projects, click here.