



## Wound Healing Foundation

Funding Research for Tomorrow's Innovations



**Name:** Georgios Theocharidis, PhD  
**Title:** Instructor in Surgery  
**Institution:** Beth Israel Deaconess Medical Center, Harvard Medical School  
**Project Title:** "Development of alginate dressings for sustained delivery of an acetylcholinesterase inhibitor to improve impaired diabetic wound healing"  
**Year Awarded:** 2023  
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### **What do you hope to/did you learn through this research?**

How can leveraging repurposed drugs can accelerate clinical applications for the treatment of diabetic foot ulcers.

### **What can you tell us about the progress made in this area since you first began your research?**

The advances in bioinformatics methods and available datasets provide more opportunities for discovery of promising compounds for therapeutics.

### **How can this research help patients, clinicians and/or scientists?**

These bandages could be an efficient treatment for DFUs to help both patients and clinicians. The mechanistic insights obtained through the research could help scientists to better understand the wound repair impairment in diabetes.

**How did this award help your career?**

It has helped support my promotion and generate more preliminary data for future funding.

**How did you get interested in wound healing and this area in particular?**

I did my PhD on the role of type VI collagen in the dermis, where I first completed my first in vivo wound healing experiment. I have since been fascinated with the complexity of the repair process and especially motivated to understand how diabetes hinders it.

**Tell us about some of the outcomes of your research you are most proud of and what it means for patients, clinicians and/or scientists.**

I generated the first single-cell DFU atlas, mapping the transcriptome of over 175,000 cells, discovering healing associated cell types and pathways, and providing a valuable resource to scientists to facilitate research in wound healing.

**What are your future plans for your work in wound healing?**

My plans are to continue combining my expertise in bioengineering and –omics to further characterize diabetic wound healing and perform translational studies with direct impact on patient populations.

**Who do you consider your mentors and your close associates in this project? How did you start working with them?**

Dr Aristidis Veves has been my mentor for the past 7 years and has been instrumental in my professional development. I started working with him as a postdoc back in 2016 right after completing my PhD and moving to the USA.

**Tell us about your life away from the lab and/or clinic?**

I enjoy discovering new restaurants, doing yoga and spending time with my spouse and our cat.

***The Wound Healing Foundation is a 501(c)3 organization.***