



Paul Y. Liu, MD

Chief of Plastic Surgery, Lifespan/Alpert Medical School of Brown University

Project Title: Devising a Cost-Effective Approach to Utilizing Hyperbaric Oxygen Therapy in Treatment of Diabetic Foot Ulcers

Year Awarded: 2015

What do you hope to learn through this research? We postulate that there is a pattern to the proteomic and genetic response to hyperbaric oxygen therapy that separates responders from non-responders. This may serve as a rational basis to determine the optimum patients to use this very expensive modality on.

How can this research help patients, clinicians and/or scientists? This work may help us target those patients who will benefit the most from HBOT.

How did this award help your career? It's always good to get peer-reviewed funding!

How did you get interested in wound healing and this area in particular? I did a research fellowship in Elof Eriksson's lab at the Brigham many years ago, and have been active in wound research ever since.

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 was one of the first people to use gene therapy techniques in the wound healing field, and we are trying to translate that to a clinical trial in tendon healing. I have also collaborated with mathematicians to publish a paper on modeling diabetic healing. And way back when, I was a coauthor on the first published therapeutic success for stem cells of any kind in a human, and it was to heal a wound!

Who do you consider your mentors and your close associates in this project? I am collaborating with Lisa Gould, a past president of the WHS on this work.