

Tufts University licenses silk biomaterials technology to Akeso Biomedical

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This is a generic silk cocoon photo, showing silk worm cocoons from which the silk protein is extracted. Credit: Tufts University

Tufts University today announced that it has licensed a novel silk technology for the treatment of chronic skin wounds to Akeso Biomedical, Inc., an early stage medical device company. The

technology was invented by David L. Kaplan, Ph.D., Stern Family Professor of Engineering at Tufts University, and his team of researchers at Tufts' School of Engineering.

Akeso hopes that the new silk technology will be able to improve wound healing in patients with leg ulcers and diabetic ulcers, where there is a significant, unmet need. Each year millions of Americans seek treatment for these chronic wounds, and many remain unhealed even after six months of treatment.

The significant advantages of the Tufts technology include the ability to control the rate of degradation of the silk, and produce silk solutions that can be processed into different formats from water, including films and sponges, and used to deliver active agents that can speed healing. Akeso joins a growing number of promising new silk technology based ventures spun out by Tufts Tech Transfer in the Office for Technology Licensing and Industry Collaboration.

"We're looking forward to the transition of this silk technology from our laboratories to the clinic and commercial products. We believe this is an exciting biomedical application for this technology, which leverages the unique properties of this protein-based biomaterial in new ways," said Kaplan, who chairs the Department of Biomedical Engineering at Tufts and also holds additional Tufts appointments in the Department of Chemistry, Sackler School of Graduate Biomedical Sciences and School of Dental Medicine.

Tufts University, Tufts Medical Center and Akeso plan to collaborate on the clinical development of the new silk-based products. Mark Iafrati, M.D., chief of vascular surgery at Tufts Medical Center, will lead the pre-clinical effort.

"I'm very pleased to be working with this exciting technology because it

has the potential to address a very significant problem in healthcare, by providing a much-needed treatment for those patients with hard-to-heal [chronic wounds](#)," said Iafrati.

Said Simon Williams, CEO of Akeso, "I am delighted to have the opportunity to work with David Kaplan and Mark Iafrati on this exciting project, and look forward to developing new products that can help the many people who suffer from treatment-resistant wounds."

Provided by Tufts University

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