Tyler D. Hernandez
Medical Student
LSU Health Sciences Center, New Orleans, Louisiana

Dr. Alison A. Smith, MD, PhD, FACS:
LSUHSC, Department of Surgery

"Prospective observational registry study of Myriad™ Matrix and Myriad™ Morcells in soft tissue reconstruction"

Soft tissue reconstruction is a procedure that is fundamental to the practice of surgery. Due to the paramount importance of soft tissue repair, the need to improve this procedure through the use of modernized technologies is ever-present. Myriad Matrix is an intact extracellular matrix (ECM) that is available in a 3-layer or a 5-layer configuration. It is derived from ovine (sheep) forestomach tissue and retains the innate biological structure of the native ECM-associated macromolecules, including elastin, fibronectin, glycosaminoglycans, and laminin. When rehydrated with wound exudate or sterile saline, Myriad Matrix transforms into a malleable and compliant sheet that naturally incorporates into the soft tissue defect over time. Myriad Morcells is a particulate made from an intact extracellular matrix that is also derived from ovine forestomach and is utilized in 500 mg and 1000 mg quantities. The morselized product is better suited for irregular soft tissue defects and tunneling defects.

We will employ an observational clinical investigation via a prospective open-label registry study. Enrollment will require the subject to be receiving soft tissue reconstruction treatment for one of the following ailments: abdominal dehiscence, necrotizing soft tissue infection (NSTI), lower extremity complex non-healing wounds (limb salvage), pilonidal sinus disease, hidradenitis suppurativa, or pressure injury. Clinical data assessment will be conducted at the initial evaluation visit, intra-operative visit, and post-operative visit using a mobile software called Tissue Analytics Application (TA APP). This software is designed to capture accurate, non-contact 3D images of the wound or soft tissue defect and securely document pertinent case information. This project aims to assess the safety and efficacy of utilizing Myriad Matrix and Morcells to provide a scaffold for cell repopulation and aid tissue formation across an array of various surgical procedures involving missing or damaged soft tissue.