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### **Composing a biocomposite mesh for hernia repair**

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Hernias are formed when the tough connective tissue that surrounds the abdominal musculature, known as fascia, breaks down, weakens, or actually rips [1]. As a result, there is a bulging of the intra-abdominal viscera through the abdominal wall defect i.e., the inside tissues and organs may start to protrude through the hernia defect. Surgeons are currently using polypropylene mesh in order to repair the defect, but this mesh undergoes a foreign body response and can cause complications due to the oxidation of the polypropylene [2]. A new type of hernia mesh is being developed with entails utilizing an acellular tissue with a adhesion barrier. On one side of this tissue, cell in growth is promoted while a hydrophobic film is covalent linked on the other side to prevent tissue in growth. Polylactic acid (PLA) has been electrospun to form a fibrous mesh film. The film then underwent aminolysis to attach amine groups to the surface. Next, this film was characterized using FT-IR spectroscopy to detect the presence of the amine groups. Finally, the PLA film and acellular tissue was pressed together to form the tissue-PLA composite material. The results indicated that good adhesion was achieved and that the composite could be an alternative to synthetic hernia meshes.