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Institution: Drexel University

Award Year: 2015

Project Title: "Developing a Novel Drug Delivery Platform for Targeting Hyaluronan Expression in Pseudomyxoma Peritonei through Human Sample Analysis and In Vivo Studies"

Project Status: Active

Update 2 (10-2017)

Our group has collected sample mucin and human tumor samples from multiple patients treated with cytoreductive surgery and heated intraperitoneal chemotherapy (HIPEC) in order to facilitate testing of nanoparticle penetration through the mucinous matrix produced in patients with PMP. Despite earlier studies demonstrating a lack of hyaluronic acid in mucin, we adjusted our approach, employing a modified nanoparticle that has lower binding affinity for cell surface proteins, allowing for improved penetration through the mucin matrix. Evaluation of nanoparticle diffusion in mouse pseudomyxoma peritonei models is currently in progress.