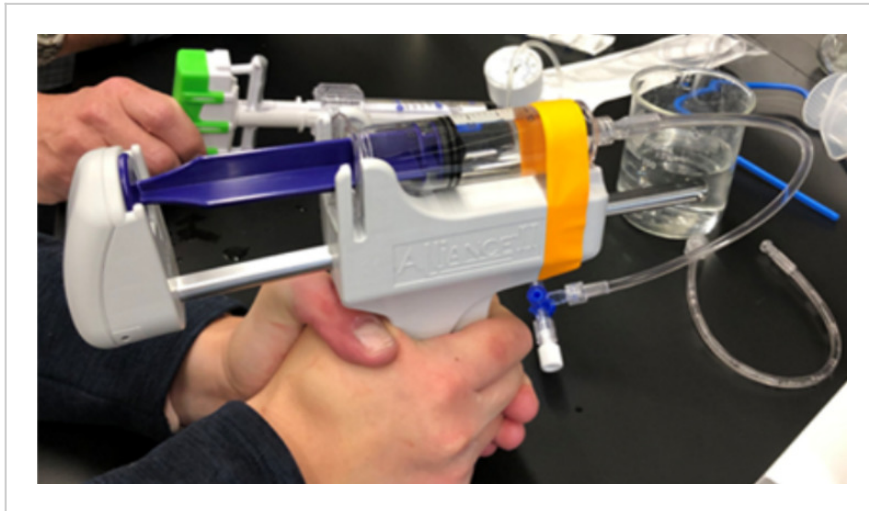


EUS-Guided Chemoablation of Pre-Cancerous Pancreatic Cysts

ID# 2020-5103



PennState



Current chemoablation setup

Technology Summary

Endoscopic ultrasound (EUS)-guided chemoablation is an innovative, minimally invasive, and rapidly evolving technique that can be used for treatment of mucinous (precancerous) type pancreatic cysts, but there is currently no standardized device available to provide reliable and safe infusion of the chemoablation agent. Penn State researchers have developed an innovative fluid delivery device for use in EUS-guided chemoablation that can provide standard pressure and agent delivery to efficiently infuse the viscous chemotherapy into the pancreatic cysts without device leakage or failure.

Application & Market Utility

Pancreatic cancer is one of the most lethal malignancies and has a dismal five-year survival rate of ~10%. At least 20% of pancreatic malignancies stem from the progression of mucinous-type pancreatic cysts, found incidentally in 2% of adults. Until recently, the only widely accepted approaches to managing mucinous pancreatic cysts were indefinite radiographic surveillance or major surgery, both of which have significant limitations. EUS-guided ablation offers an alternative, but there are no devices specific to this procedure, and equipment often bends, leaks, or fails due to the required pressures or reaction of the chemotherapy agents with incompatible materials. A standardized device for enabling EUS-guided chemoablation could significantly increase adoption of the procedure and ultimately reduce the number of mucinous cysts that progress to pancreatic cancer.

Next Steps

Seeking investment and licensing partners.

TECHNOLOGY READINESS LEVEL

3

Seeking

Investment | Licensing |

Keywords

- Chemoablation
- Medical device
- Pancreatic cancer

Researchers

Matthew Moyer, MS, MD

Professor, Department of Medicine, Division of Gastroenterology and Hepatology

[Website](#)

Kayla Hartz, DO

Resident Physician, Department of Internal Medicine

Other Researchers

Originating College

College of Medicine

Office of Technology Management Contact

Martinez, Alison

alison.martinez@psu.edu



Invent Penn State is a Commonwealth-wide initiative to spur economic development, job creation, and student career success. Invent Penn State blends entrepreneurship-focused academic programs, business startup training and incubation, funding for commercialization, and university-community collaborations to facilitate the challenging process of turning research discoveries into valuable products and services that can benefit Pennsylvanians and humankind. Learn more at invent.psu.edu.

Penn State is an equal opportunity, affirmative action employer, and is committed to providing employment opportunities to all qualified applicants without regard to race, color, religion, age, sex, sexual orientation, gender identity, national origin, disability or protected veteran status.