Using a Tumor Ablation Device in Cancer Patients



Measuring

Impacting

Patients

Broadly



In 2018, Cures Within Reach funded Dr. Rafael Davalos at Virginia Tech University to test irreversible electroporation (IRE), an approved procedure in tumor ablation, to treat pancreatic cancer by activating the immune system to potentially help treatment response. IRE delivers short, intense electrical pulses that damage the cell membrane of targeted cells without damaging the surrounding tissue, therefore

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ideally suited to treat patients with tumors that cannot be removed via surgery. Dr. Davalos and his team developed a unique technique for developing a personalized pre-treatment plan to target each patient's tumor more effectively with IRE and demonstrated both a reduction in ablation time and lower risk of thermal effects during IRE procedures for locally advanced pancreatic cancer. In 2019, these results were published while also showing that IRE modulated the patients' immune response – indicating that IRE could potentially be combined effectively with other immunotherapy to improve patient outcomes in pancreatic cancer.

KEY FACTS AND IMPACT

- CWR's \$50,000 funded a clinical trial using irreversible electroporation (IRE) to treat pancreatic cancer
- CWR'S contribution helped to leverage \$2.3 million in follow-on funding from the NIH to study the same technology in liver cancer
- The team developed EView, an online training tool to help train clinicians on IRE treatment planning

