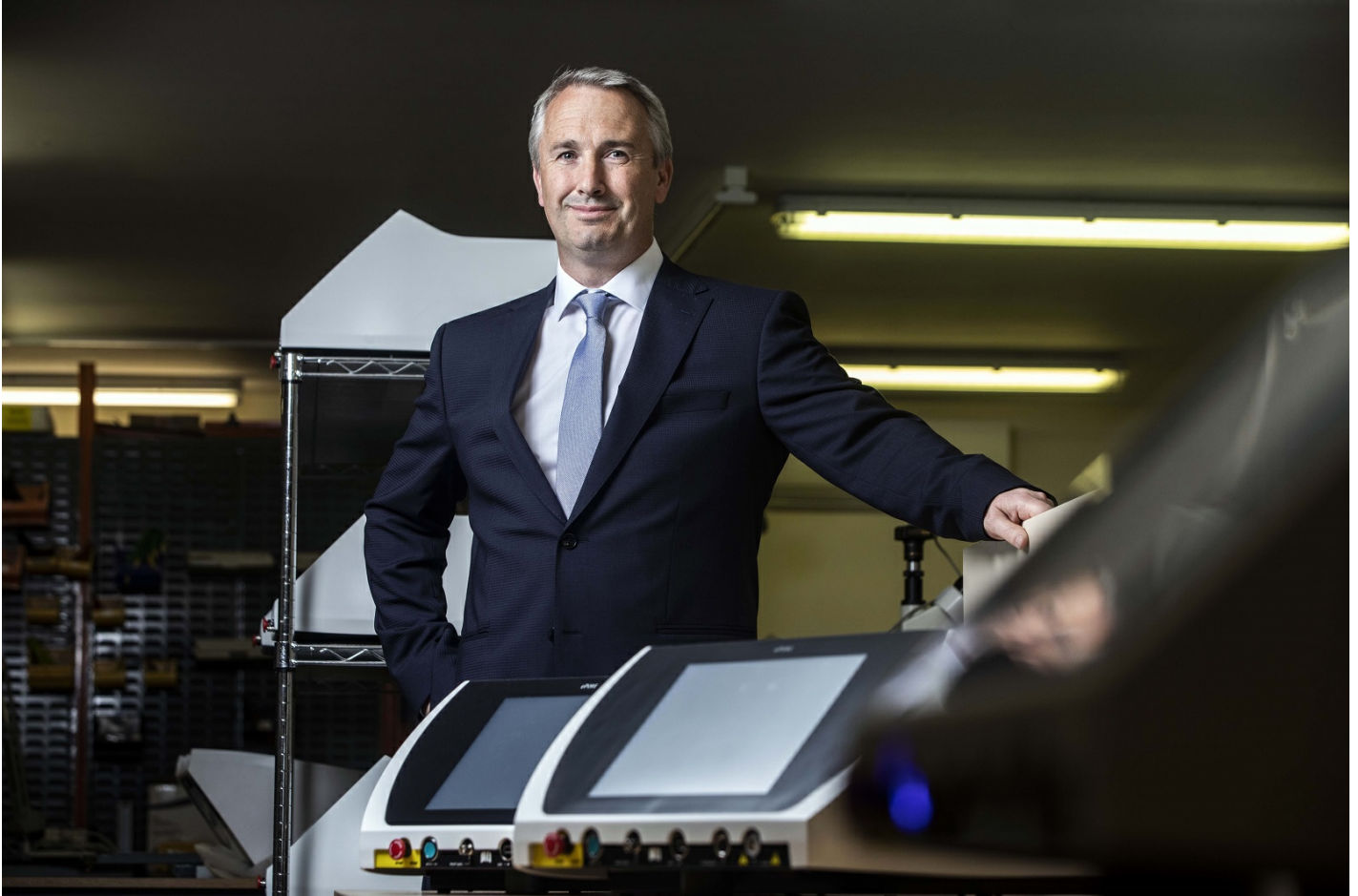


A Device To Treat Solid GI Tract Tumors

University College Cork



A precision cancer therapy procedure invented at University College Cork (UCC) treats solid tumors of the gastrointestinal (GI) tract, including difficult-to-treat esophageal cancer, in an outpatient setting, minimizing hospital time.

Developed in the Cork Cancer Research Centre at UCC, the ePORE® EndoVE® therapy is composed of a bedside pulse generator, ePORE, that generates high-frequency pulsed electrical fields, coupled to the EndoVE electrode device which is applied directly to tumors to ‘electroporate’ the tissue (to make cells porous).

Electroporation can be used in combination with low-dose chemotherapy drug like bleomycin. A significant advantage of this targeted precision treatment is that it can be delivered under local anesthesia in an out-patient setting, so hospital time is minimized. The treatment has minimal side-effects and preserves surrounding healthy tissue.

ePORE EndoVe is protected by two patents granted to UCC which were subsequently licensed to establish a new spinout, Mirai Medical. Declan Soden, who co-invented the technology, left UCC to lead the company and commercialize the research that was started by his colleague, co-inventor and one of Ireland’s top surgeons, the late Professor Gerry O’Sullivan.

Mirai has raised approximately €10M in investment to date which is being used to support clinical studies ongoing in several European hospitals, including the VECTOR trial in patients with esophageal cancer. Approximately half of patients diagnosed with this cancer present with unresectable or metastatic disease and the ePORE therapy aims to control swallowing, improve quality of life, and prolong survival.

ePORE was also recently trialed on gynecological cancer patients at Queen Charlotte's Hospital, London, where response to treatment was very positive. ePore may provide an alternative treatment for young patients who may not wish to embark on an excisional procedure which may have an adverse effect on their future fertility.

Mirai has rolled out ePORE therapy to 45 hospitals since the device was first CE-marked in Europe in January 2020. Mirai's business development strategy consists of establishing strategic partnerships with surgical Key Opinion Leaders (KOLs) at specialty cancer hospitals across the world.

Kevin Dalton is an experienced commercialization manager within UCC Innovation, the technology transfer office at UCC. He played a key role in assisting Declan Soden spinout Mirai Medical in 2017. His previous experience working in a startup together with his skills and dealmaking expertise (RTTP designation received in 2015) were instrumental in finalizing a business plan and completing license negotiations in a professional and timely manner.

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