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Health Innovator Programme at Singapore showcases new inventions in femtech space

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Two provisional patents filed for 1) a more effective system for in vitro fertilisation and 2) a device to prevent perinatal tears during birth



The new Duke-NUS Health Innovator Programme (DHIP) in Singapore held its first ‘shark tank’-style event recently, where the winning team walked away with S$20,000 for their new prototype to prevent perinatal tears during childbirth and its high potential to benefit patients and the healthcare system.

Launched in September 2022, DHIP aims to instil an innovation-driven mindset in students so that they will continue to improve clinical practice after they graduate. Led by Assistant Professor Rena Dharmawan (Class of 2011), the programme is conducted through a nine-month innovation fellowship at Duke-NUS.

The winning team’s ‘OasiGuard’ is a device that prevents perineal lacerations or tears during natural childbirth. As 9 in 10 women experience such tears during natural childbirth, with 3 in 10 experiencing deeper tears that require suturing, OasiGuard will lower the rates of perineal tears during birth, protecting mothers from unnecessary physical and mental trauma.

The other two teams’ inventions also focussed on improving the chances of successful pregnancies: ‘TuPart’ is a handheld ultrasound device that provides real-time guidance for mothers to assess foetal wellbeing from the comfort of their homes, while ‘Flow’ is an enhanced embryo transfer catheter that maximises the possibility of successful embryo deposition during in vitro fertilisation.

All three teams will be pursuing full patent applications over the next 12 months. Next year, DHIP is planning to centre its theme around primary health and oncology and to take on twice as many students in its next cohort.