



## About the Innovator

Helen Ryan is a Senior Medical Scientist with 20 years' experience in Medical Laboratory Service provision at University Hospital Galway.

Helen is passionate about clinical innovation and is constantly identifying healthcare challenges to address. Helen sees an opportunity where others see a problem. Here her passion for innovation comes to the fore when applying fresh thinking and perspective to longstanding problems.

Helen aspires to be an ambassador and leader in creating innovative solutions for women's health. Helen was the recipient of Enterprise Ireland's Clinical Innovation Award 2019, where she won €15,000 to develop her idea for an innovative Point of Care blood-testing platform. Helen is also a winner of the 2020 HIHI Spark Ignite regional finals with her idea for a system that could make a substantive impact in the management of pregnancy related complications.

## About Health Innovation Hub Ireland

Health services in Ireland and across the world are increasingly seeking innovations in health-related technology, products and services to drive improvements in the quality, access and value of healthcare delivery.

Health Innovation Hub Ireland (HIHI) brings enterprises and healthcare professionals together to **test, validate and help commercialise** innovative technologies, products and services, while enabling greater innovation in healthcare delivery.

HIHI supports the building of an **innovation culture** within the **health service** through a suite of knowledge building resources and guidance for healthcare professionals on the key steps from ideation to adoption.

HIHI works with those with ideas that address unmet healthcare needs to develop new products and processes within the healthcare system and stimulate a pipeline of new needs-driven innovations for the future.



## About HIHI Spark Ignite

The Health Innovation Hub collaborated with the Office of Nursing and Midwifery Service Development, National Doctors Training and Planning, and the Galway Local Enterprise Office to deliver the only bottom up, staff facing, innovation competition open to all HSE staff. The programme received over 150 applications from all disciplines and grades across the HSE. Thirty-six applications were selected to attend an innovation workshop to develop their idea by building a business proposition and preparing a pitch. The workshop participants pitched their ideas to a panel of experienced judges to win prize funding to develop their idea towards reality.



# The Healthcare Challenge

Globally, complications of pregnancy have a profound effect on women, their families and the healthcare systems associated with their clinical management. Evidence points to significant disparities in the quality and level of access to timely interventions all of which can dramatically affect neonatal and maternal outcomes. In the US alone, healthcare costs run in the billions, despite a significant proportion being preventable. The current focus of Helen's research is in the realm

of women's health, with a specific emphasis on the management of pregnancy related complications. Helen recognised the importance of creating more sensitive and empathetic means of delivering this care, centred on women's emotional as well as physical needs. It was also an opportunity for Helen to extend her research in antenatal care having completed her thesis on maternal alloimmunisation and National anti-D prophylaxis strategies.

## Idea

Helen aims to create an innovative testing platform that will support clinical decision-making and allow for more timely obstetric interventions in at risk pregnancies. For expectant mothers and their families this will provide peace of mind and reassurance at a stressful time of pregnancy and improve neonatal and maternal outcomes compared with the current standard of care. For care providers there is an opportunity to deliver significant cost savings through the more effective management of referrals, reduced follow up investigations and improved triaging through better-informed clinical care pathways.

## Outcome Report/Next Steps

Helen's success as a HIHI Spark Ignite regional final winner has provided a platform to promote her idea and generate interest and support. The prize funding will be used to develop this project towards commercialisation. There are many stages and challenges to come between the initial idea and getting a safe, potentially lifesaving product into the hands of those who need it. The HIHI Spark Ignite funding, and continued support of the team, will help identify those challenges, determine a path forward, and ultimately move the project to the next critical phase of development.

Helen is working with HIHI and Enterprise Ireland to explore the market place for her innovative solution. Other considerations will include examining the competition, the state of the art, product development pathways, and regulatory roadmaps.

## Role of HIHI

Helen applied to the HIHI Spark Ignite Programme with her idea to address a serious and underserved clinical need for expectant mothers and their families. The HIHI Spark Ignite programme focused on supporting healthcare staff to assess, and develop their ideas. All successful applicants received HIHI support through a bespoke innovation workshop for healthcare professionals, one-to-one mentorship, and an opportunity to pitch for funding to develop their ideas.

Helen was one of the winners of the regional final in Galway with her idea.

Through HIHI Spark Ignite, Helen developed a prize winning presentation displaying the need for a solution in this space from a patient, clinical, and commercial perspective. The innovation workshop, mentorship, and opportunity to engage with expert judges provided an opportunity for Helen to move her project forward in a meaningful way.

## Testimonial

*The HIHI Spark Ignite Programme has provided me with invaluable advice and support which has allowed me to pursue my idea in a more focused and meaningful way. It has given innovators like me a platform to engage in the process of interactive learning, avail of expert coaching and mentorship, enhance my leadership skills and allowed me to gain a better appreciation of what is involved in bringing an idea from concept to commercialisation. It was also a valuable opportunity to extend my support network and work cross functionally with professionals with very different domain expertise including those working in design, regulatory and finance.*



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