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Innovator Showcase

BIOTECHNOLOGIST DEVELOPS WORLD LEADING WOUND HEALING INNOVATION

InoHeal

India

Shivani Gupta

The patented technology underpinning InoHeal performs several complementary and valuable functions. These include reducing inflammation, controlling microbial growth, and enhancing cell proliferation and tissue perfusion. Patients recover faster and with fewer complications, and are discharged faster, reducing pressure on overstretched healthcare providers.

InoHeal aligns with the UN's Sustainable Development, specifically those relating to good health and wellbeing, and "universal access... to safe, effective quality and affordable essential medicines". Shivani explains how InoHeal is helping to save patients from potentially life-changing complications:

"Patients may have adverse consequences to wounds like infections, which could lead to amputation. Our product helps avoid these consequences by stimulating various biophysical mechanisms." InoHeal has been designed to be used in any global healthcare setting, reflecting the universal risks wounds pose to physical wellbeing.

Shivani has assembled a multidisciplinary team, working on aspects as diverse as regulation, manufacturing, and design. InoHeal has evolved from idea to prototype, into a now commercially available product with IP filings. During product development, Shivani identified that the UK has a national wound care strategy, which could offer scope for her product to be rolled out across the UK, as well as overseas.

From diabetic foot ulcers to trauma injuries, ineffective or compromised wound healing is estimated to affect one hundred million people globally each year. In response, Dr Shivani Gupta founded a MedTech startup in New Delhi, aimed at stimulating the biophysical mechanisms within the body.

These accelerate wound healing, minimise infections, and dramatically reduce treatment time. Having already been successfully rolled out across India, this innovative technology will soon be marketed internationally, benefiting patients and healthcare providers around the world.

LIF was instrumental in giving Shivani a global perspective, and she describes the programme as a lifelong collaboration: “The Academy gave us a chance to work with experts in the field, discussing how this product could be placed in the market. LIF helped us to think ahead – what lies in the future, and what could the problems be? It widens your perspective on the global potential of the innovation you are working on.” She also praises the support of a “wonderful” mentor throughout her journey, acknowledging the value of meeting external experts and developing key contacts within the Academy.

Shivani’s newfound international perspective will spearhead the rollout of InoHeal in other countries, with potentially huge benefits across regions with limited healthcare. It has already attracted attention from Brazilian healthcare professionals, keen to evaluate the product for the Latin American market. “We’re now evaluating other markets in terms of regulatory requirements and where we should go next,” says Shivani. “Sometimes you need to broaden your perspective towards a global outlook to see how the innovation works elsewhere.”

The Royal Academy of Engineering’s Leaders in Innovation Fellowships (LIF) programme supports talented entrepreneurs from around the globe to turn their engineering innovations into impactful, sustainable businesses.

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