

OSSTEC raises £2.5m to launch innovative cementless joint replacement technology

Improving clinical outcomes and operating efficiency while simplifying the supply chain with an IP-rich solution

8 April 2025, London: [OSSTEC](#), a London-based start-up changing the face of joint replacement implants with a novel 3D printing technology, has raised £2.5M in funding. The round was led by specialist DeepTech VC Empirical Ventures with participation from Oxford Innovation Finance, SFC Capital, Embryo Ventures and Mishcon de Reya, and, due to increased interest, remains open for further investment.

Osteoarthritis causes chronic pain for billions of people worldwide, with 1.3 million knee replacement surgeries performed globally each year. 450,000 of these cases are young patients who face a high risk of failure and revision surgery (35%). Market dynamics mean that we need to treat more people than ever before at reduced costs, which has led to a marked increase in outpatient surgery.

Based on 10 years of research at Imperial College London, OSSTEC has developed patented 3D-printing technology to mimic both cartilage articulating surfaces and bone-fixing structures. Its first product has been developed with a world-leading team of surgeons and can be applied in less invasive knee implants to stimulate bone growth.

The technology will fundamentally change orthopaedics, significantly reducing the risk of implant failure or complications and allowing patients to stay active, pain-free and enjoy an improved quality of life. This, in turn, enables healthcare providers to operate more efficiently, saving thousands on treatment costs and treating more patients in a timely manner. This latest funding round advances OSSTEC to launch in the market and scale its impact with strategic partners in the medical field.

Max Munford, PhD, CEO and Founder of OSSTEC, said:

"This funding marks a pivotal moment for OSSTEC, enabling us to bring our groundbreaking technology to market with our team of surgeons and engage in strategic collaborations to improve patient outcomes. We are at the exciting intersection of innovative technology, delivering value for surgeons and patients and high-growth markets, all combined to help more people stay active and pain-free for longer. We're excited to take the next steps in scaling our impact and making a meaningful difference in patients' lives and the wider healthcare ecosystem."

Johnathan Matlock, General Partner and co-founder at Empirical Ventures, said:

"OSSTEC is an excellent example of how scientific discovery can be transformed into real-world impact. The company has huge potential to completely reform best practices in this field of healthcare, with an impressive team of scientists pushing the boundaries of engineering and medical research. In backing OSSTEC, we continue to drive forward Empirical Ventures' own mission of empowering the next generation of innovators to turn their research into impactful solutions."

Dr Alex Liddle, MBBS, BSc, DPhil, FRCS (Orth) and Chief Medical Officer at OSSTEC, said: “OSSTEC’s 3D printing technology allows efficient manufacturing whilst eliminating mechanisms of failure seen in previous cementless knee replacements. OSSTEC’s cementless partial knee represents a major step forward in unicompartmental knee replacement surgery. Cementless partial knee replacement has advantages over cemented techniques with improved efficient workflows, survival and clinical outcomes. This represents an exciting new development in orthopaedics that promises improved fixation and reduced risks, providing value for patients, surgeons and the wider healthcare system.”

- ENDS -

About OSSTEC

OSSTEC is a London-based start-up built on 10 years of Imperial College London research. Our team combines world-leading surgeons, experienced engineers and multi-time founders, balancing technical and market expertise with a blend of ambition and expertise gained through years of experience in medical devices. OSSTEC is working to bring innovative technology and a surgeon-led product from the lab to the operating room to improve patient outcomes, operating efficiency and reduce healthcare costs.

About Empirical Ventures

Empirical Ventures Fund I is a SEIS and EIS fund which invests in early-stage deep-tech startups and university spin-outs. It supports scientists and innovators to turn research and scientific breakthroughs into commercially viable entities. Co-founded by Dr Ben Miles and Dr Johnathan Matlock, the founding Partners have extensive experience as scientists, entrepreneurs, and investors and have provided entrepreneurial training to over 5,000 UK-based scientists. With each member of the investment team holding a PhD, Empirical Ventures uses scientific enquiry to identify the most compelling scientific innovations for commercialisation, high-risk but high-reward deep tech companies that can demonstrate potential for real-world impact.