

MISSION-ALIGNED INNOVATION INVESTMENT

Purpose

Orthopaedic Research UK (ORUK) is a medical research charity established to support musculoskeletal (MSK) research and education in the United Kingdom.

This framework allows ORUK to support early-stage, high-risk innovation in MSK health, directly contributing to our mission of advancing orthopaedic research, education and innovation.

Scope

MSK health encompasses all medical, scientific, technological, and clinical domains related to the structure, function, diseases, and injuries of the MSK system. This framework ensures that ORUK's investment activity remains tightly aligned with its charitable objective.

Included MSK Areas

Investments may be directed toward innovations that directly prevent, diagnose, treat, or improve conditions affecting:

- **Bones:** fractures, osteoporosis, bone healing, bone infection, bone tumours.
- **Joints:** osteoarthritis, inflammatory arthritis, cartilage injury and regeneration, synovial diseases, joint replacement and reconstruction.
- **Spine:** degenerative disc disease, spinal deformity, vertebral injuries, spinal stability, MSK-related neurological function.
- **Muscles and Soft Tissues:** muscle injury and degeneration, tendinopathies, ligament injuries (e.g., ACL, rotator cuff), myopathies, soft-tissue reconstruction.
- **Peripheral Nerves (MSK-related):** trauma-related nerve injuries, nerve repair technologies influencing movement and MSK function.
- **Paediatric MSK:** congenital and developmental conditions such as clubfoot, dysplasia, growth plate injuries, and genetic disorders affecting bones or muscles.

Included MSK-Relevant Technologies and Innovations

Investments may also support technologies that advance the diagnosis, treatment, or rehabilitation of MSK conditions, including:

- **Orthopaedic Devices & Surgical Technologies:** implants, fixation systems, arthroscopy, robotics, surgical navigation, minimally invasive tools.
- **Diagnostics & Imaging:** imaging innovations, AI-enabled diagnostics, biomechanics and gait analysis, biomarker assays.
- **Rehabilitation & Recovery Technologies:** digital physiotherapy, wearables, motion-capture systems, neuro-musculoskeletal rehabilitation tools.
- **Digital MSK Health Solutions:** remote monitoring, care-coordination platforms, clinical decision-support tools tailored to MSK pathways.
- **Regenerative & Biological Therapies:** orthobiologics, gene therapy, cell therapy, tissue engineering, cartilage and bone regeneration.
- **Pain & Function Innovations:** non-opioid pain solutions, neuromodulation, exoskeletons, mobility-enhancing devices.

MSK-Adjacent Innovations Eligible for Inclusion

Projects primarily addressing adjacent health domains may be considered where material MSK impact is demonstrated, including:

- Falls-prevention solutions linked to fracture reduction.
- Chronic pain management technologies specifically addressing MSK-related pain.
- Mobility enhancement technologies improving MSK function.
- Surgical workflow or perioperative optimisation tools directly supporting orthopaedic care.

Non-Included Areas

The following categories fall outside MSK scope unless a clear and direct MSK impact is demonstrated:

- General health, wellbeing, or fitness applications.
- Non-MSK neurological, cardiovascular, respiratory, or metabolic innovations.
- Generic hospital, administrative, or IT systems not developed for MSK pathways.

Response-Mode Flexibility

While this framework sets out clear parameters for mission-aligned investment, ORUK recognises that innovation often emerges through complex and interconnected pathways. Flexibility is therefore required to ensure we can respond effectively to opportunities with the potential to deliver meaningful impact for patients, clinicians, and services.

Organisations typically engage with ORUK through one of the following routes:

- **The MSK Innovation Accelerator Programme**, supporting entrepreneurially minded early-career researchers with building their ventures.
- **The Ronald Furlong Fund**, supporting early-stage MSK startups with significant commercialisation potential.

In most cases, opportunities are assessed and progressed strictly within the defined remit of the programme through which they apply. However, in exceptional circumstances, ORUK may move into a “response mode”, enabling us to review opportunities earlier than scheduled, or outside of the usual funding streams, where this is considered appropriate.

This response-mode approach may be activated in situations such as:

- Addressing critical funding gaps that could otherwise stall high-potential innovation; or
- Responding to outstanding or time-sensitive opportunities that align strongly with our mission and have the potential to deliver significant future impact.

Where response mode is triggered, the budgets allocated to defined funding streams will remain protected. Any response-mode investment will be considered separately and will not compromise ORUK’s existing investment commitments or planned programme activity.

Any response-mode decision will be taken deliberately and proportionately, ensuring alignment with ORUK’s mission, clinical insight, and the interconnected nature of our innovation ecosystem, while maintaining appropriate governance and oversight.

Risk Appetite

In line with our charitable objectives, ORUK is willing to allocate a portion of its portfolio to high-risk, early-stage startups focused on MSK health and innovation. These equity investments may carry a higher probability of loss but also offer the potential for transformational impact aligned with ORUK’s purpose.

Amount Available

The amount available for investment is reviewed annually and adjusted where required to ensure ORUK continues to meet its charitable objectives and grant-making commitments.

Investment Time Horizon

ORUK is expected to exist in perpetuity and therefore invests with a long-term horizon, maintaining discipline and focus on sustainable growth and income.