

Healthcare Science Innovation Associates

Programme Information for Applicants

Introduction:

The full Healthcare Science Innovation Fellowships Programme is an opportunity for qualified Healthcare Scientists working within the NHS in England and Wales, with at least 1 year of post-qualification experience. It provides experience of the technology innovation process, equipping Fellows with the knowledge, skills and confidence for the development, evaluation and implementation of new technologies, and the ability to initiate and lead their own technology innovation projects in the future. The full Programme comprises an online Innovation Module and completion of an Innovation Project. The Module spans the full innovation pathway. Methods for identifying and managing unmet needs will be introduced as a central methodology and it covers areas such as device regulation and standards as enablers to the safe and effective introduction of new and emerging technologies.

The Associate Opportunity:

Funded by Health Education and Improvement Wales (HEIW), this opportunity is open to those Healthcare Scientists in NHS Wales who might be interested in applying for the full Innovation Fellowship Programme in future. This Associate opportunity provides a chance to complete the Innovation Learning Module without the need to also complete an Innovation Project. Additional mentoring towards considering a future project will also be offered. It is a pilot for this year (Summer 2023) for NHS Wales; it may be considered for a flexible route to the full Fellowship in future years.

Those who successfully complete the Module will be invited to apply for the full Fellowship in the next cohort (starting in Autumn 2023) to be considered to undertake an Innovation Project relevant to their department and the wider NHS. For those successful and subsequently awarded a full Fellowship place, the host department will be awarded a bursary to cover auditable costs associated with the full Fellowship. Fellows will have access to blended project-based training resources and mentoring to undertake a technology innovation project relevant to their department. Full Fellows will be encouraged to look at projects through the prism of the NHS Long Term Plan, seeing the patient as a partner, and understanding their journey, and considering future health technology possibilities. Device regulation and standards will be introduced as enablers to the safe and effective introduction of new and emerging technologies. Methods for identifying and managing unmet needs will be introduced as a central methodology.

Background

Technological solutions are a key component to meeting the challenges facing the NHS and the changing society in which we live. Safe and effective technologies

together with the adoption of innovative solutions at pace and scale are essential for patient benefit and to keep healthcare operating at the limits of science.

Healthcare Scientists need to be given the “tools to do the job” in terms of healthcare technology management techniques, to lead developing and implementing evolving technologies and innovative solutions. The Fellowship scheme will build system capacity to increase medical device regulatory and standards expertise and innovation capabilities for the introduction of appropriate technologies.

Partnering the proven innovation expertise of the NIHR Devices for Dignity MedTech Co-operative (www.devicesfordignity.org.uk/) with candidates keen to develop their innovation skillset, the Fellowship programme offers an experiential framework where skills are built and real-world examples are tested.

Delivery Partners

This work will be undertaken in collaboration with the Office of the Chief Scientific Officer for NHS England (CSO) and the National School of Healthcare Science (NSHCS), and be delivered by NIHR Devices for Dignity MedTech Co-operative (Devices for Dignity), an organisation embedded within the NHS and successfully catalysing medical technology innovation since 2008.

Devices for Dignity work with people living with long-term conditions (across the life course from very young children to older adults) and bring together teams to catalyse technology development in response to unmet needs, which, if addressed, will deliver the most impact for patients, carers and health & social care. Devices for Dignity projects begin with a holistic assessment of functional limitations and challenges that arise from living with long term conditions. Often health conditions are managed in isolation, which is not always effective for patients in identifying the most suitable technology to help them. Devices for Dignity recognise the challenges of overlapping complications of illnesses on quality of life and the ability to live, work and function independently.

Programme Criteria & Content

The full Programme lasts up to 12 months, with the departments of Fellows committing to provide an average of 1 day per week protected time to aid study and project completion.

The Associate opportunity is a 4 month period, where a commitment of an average of 1-2 sessions per week protected time is recommended to enable study.

Online learning resources will comprise inter-related elements, introducing the knowledge and methods required to develop a technology from an initial unmet need through the path to commercialisation and wide-scale adoption into the NHS or wider health and social care system.

Associates will be introduced to a range of skills and attributes necessary for successful evolution of an initial idea to a technology that brings patient and system benefits. Those that go on to become Fellows will experience the key components of the development pathway and will be partnered with appropriate mentors who will be experts in their fields.

Within the application form, applicants will be asked to provide a short summary of a technology innovation project that they may wish to undertake in future. The project focus must include an aspect that is relevant to:

- delivering benefits through the use of digital technologies for diagnosis or monitoring,
- helping people to live their lives well, for longer,
- and ideally synergises with one of D4D's clinical themes (Diabetes, Renal Technology and Long-Term Neurological Conditions) or cross-cutting themes (Assistive Technology & Connected Healthcare, Rehabilitation Technologies, or Human Factors).

Applicants are not required to have developed technologies previously, but successful applicants will be expected to have demonstrated passion and aspiration for improving healthcare technology for patient and system benefit.

Experience to be gained on the Associate Programme

- Appreciation of governance & risk management frameworks for medical technologies
- Appreciation of commercialisation routes and challenges.
- Awareness of tools, techniques and partnership approaches to aid technology development and adoption.
- Increased knowledge of the medical technology innovation development pathway.

Additional experience to be gained on the full Fellowship

- Enrichment of innovation leadership skills.
- Enhancement of communication skills for respectful, inclusive, meaningful and empathetic conversations with patients.
- Experience of redesigning/optimising a clinical pathway and 'hands-on' involvement in a technology development project.
- Experience of working in multi-stakeholder teams with external partners.
- Springboard for participation in other programmes, e.g. Clinical Entrepreneur Programme.

How to apply

Online applications can be accessed via: [Innovation-Fellows-Application-Form-2023-AssociateNHSWales.docx \(live.com\)](#)