

TUH Research & Innovation Strategy 2024-2029



Tallaght
University
Hospital

Ospidéal
Ollscoile
Thamhlachta

An Academic Partner of Trinity College Dublin

Everyday we turn ideas into
cutting-edge innovations to
help patients get better care.



Vision

Establish TUH as a leading site, both nationally and internationally for research in a complex clinical environment. Innovate Health will be the first pan hospital innovation centre in Ireland with a focus on testing innovative solutions to the biggest challenges in healthcare.

Tallaght University Hospital (TUH)

TUH is a Chartered Corporation and is a section 38 voluntary hospital which means that it is an independent legal entity with its own Board of Directors. The Hospital has its own Data Protection Governance and Procurement Department. Therefore by its nature TUH is set up as an ideal site to pilot research and innovation projects which, if successful could then be scaled nationally and internationally.



Healthcare systems globally are faced with major challenges owing to rising demand, staff shortages and increasing costs. The delivery of healthcare needs to be rethought, research and innovation is integral to this.



Foreword

Healthcare systems globally are faced with major challenges owing to rising demand, staff shortages and increasing costs. The delivery of healthcare needs to be rethought, research and innovation is integral to this.

TUH, through its founding hospitals, has a strong history and culture of research and innovation. Dr. Robert Graves and Dr. William Stokes are regarded as the founders of bedside teaching in clinical education and Dr. Francis Rynd developed the first hypodermic needle. This tradition of research and innovation has continued to date, and TUH is now one of the largest teaching hospitals in Ireland.

The Hospital is also an academic partner with Trinity College Dublin (TCD) and has specialised services in the fields of aging, brain health, chronic diseases, endocrinology, emergency medicine, haematology, nephrology, orthopaedics, trauma and urology.

We have a strong ambition to use our existing clinical expertise with a specific focus on research and innovation, such is the ambition it is one of the pillars of our corporate [strategy](#).

TUH formally established its Research & Innovation Offices in 2021. To our knowledge we are the first and only hospital in Ireland to have these dedicated resources. The benefit of onsite research and innovation offices is the existence of a clearly identifiable and understood pathway for ideas in the institution and from external partnerships to be funnelled through and supported in the real world setting. In October 2022 the Innovation Office was rebranded as Innovate Health at TUH (www.innovatehealthtuh.ie), in order to provide increased visibility with the aim of developing a state-of-the-art onsite Innovation Centre.

Innovate Health bridges the gaps in the Irish healthcare system between industry, public sector bodies, and academia.

John Kelly
Deputy Chief Executive of
Tallaght University Hospital



Research & Innovation is at the heart of our hospital, and our dynamic, independent Board of Directors empower us to make pragmatic decisions to improve the patient experience. To develop this Research & Innovation Strategy a subcommittee of the Hospital Board of Directors was established which includes external international expertise. I am truly grateful for their time and commitment and look forward to working with them on the delivery of this strategy over the next five years.

Knowing the team that is committed to working and delivering on this strategy I am confident that we will have an exciting five years. Cultivating and encouraging actionable research and innovation, solving some of the greatest challenges in healthcare.

John Kelly

Deputy Chief Executive of
Tallaght University Hospital,
Executive Lead for Research & Innovation.



TUH Research & Innovation Strategy ‘At a Glance’

TUH Research & Innovation: Our Story

The TUH Hospital Strategy was published in 2019 and identified six priority areas for the Hospital. Research & Innovation was selected as one of these priority areas as TUH is known for its ongoing commitment to Research & Innovation and embracing outcomes from it. TUH is also known for its Quality Improvement under the direction of the Quality, Safety & Risk Management Directorate.

Research, Innovation and Quality Improvement are linked and our departments cooperate, however Quality Improvement is distinct from Research & Innovation and is part of the engine that functions to improve patient care and outcomes overall.

As a result of the publication of the Hospital Strategy the Research & Innovation Department was established in 2021 with the deputy CEO appointed as the executive director with responsibility for Research & Innovation. Subsequently, the Heads of Research & Innovation were appointed and the Research & Innovation Offices were established.

This creation of two distinct offices with their own leads in a healthcare setting is unique to TUH from a national standpoint. The remit of the Research & Innovation Offices are defined and limited as per the following definitions:

- Clinical research is the study of health and illness in people. There are numerous types of clinical research including retrospective chart reviews, observational studies and clinical trials. Clinical research leads to the generation of new generalisable knowledge of importance to the national and international community.
- Health Innovation is defined as a new or improved solution with the transformative ability to accelerate positive health impact (World Health Organisation).

Academia, National Programmes such as Health Innovation Hub Ireland (HIHI) and HSE Spark Innovation Programme are engaged and driven to transform our health service. However the lack of a centralised mechanism for engagement with the frontline healthcare service was identified as a gap in Ireland.

The daily challenges experienced by staff and patients should be the focal point of ideation and design.

In 2021–2022 TUH developed a new operating model for healthcare innovation. Innovate Health, where healthcare professionals, designers, medical device manufacturers, engineers and IT work in close collaboration through the entire process of development, from idea generation to deployment. A stage gating process was introduced where projects are evaluated and determined whether they can be sustained at scale within the Hospital.

To our knowledge this is the first model of its kind in Ireland where a pipeline of pan-hospital innovation projects are managed and evaluated on an ongoing basis. Innovate Health is a gateway through which government, industry and academic partners can work in partnership with the Hospital in translating clinical research to the real world setting and developing innovative solutions for patients and the healthcare system in general.

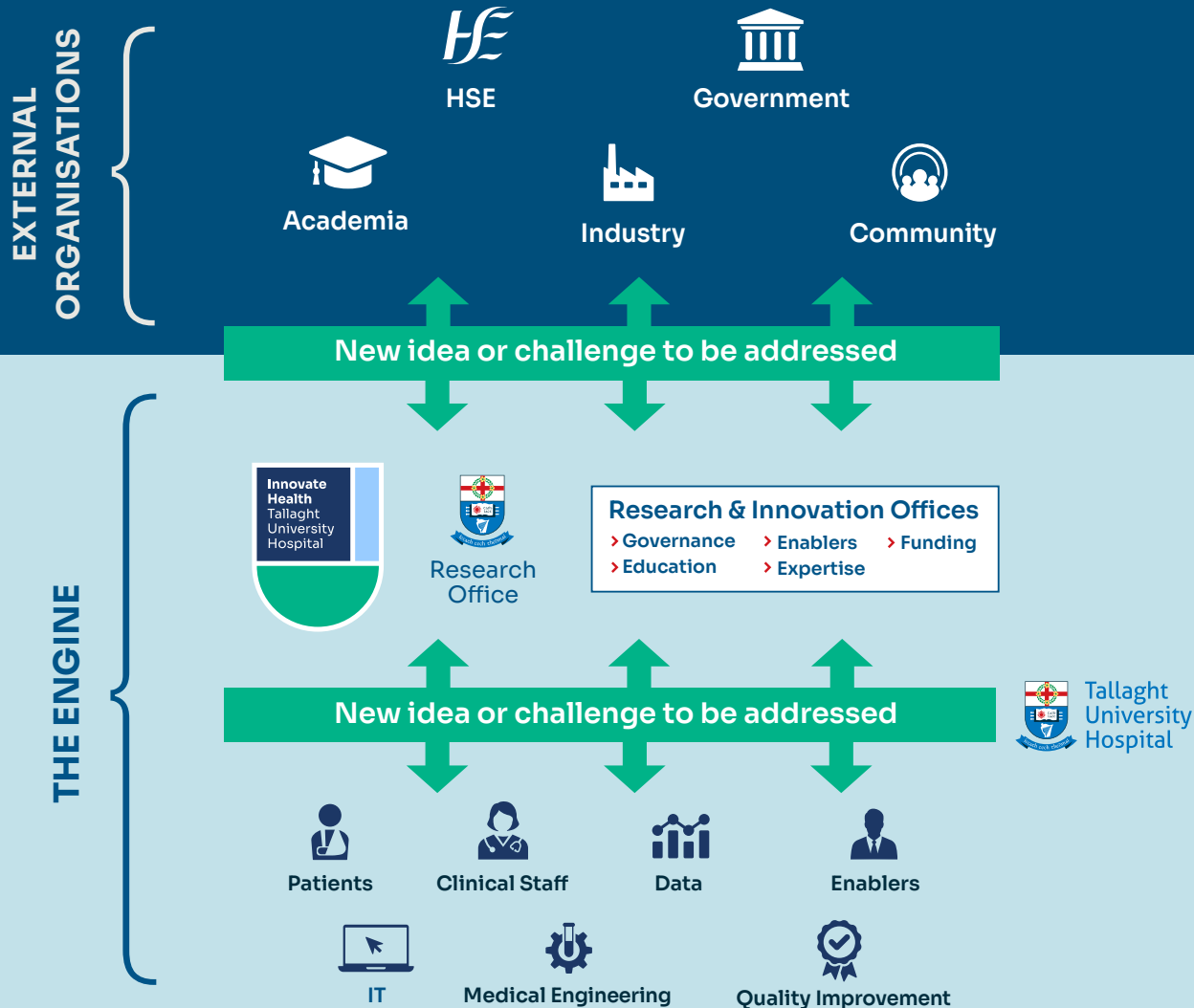
We need to innovate around what we traditionally do but then also look at new avenues that we can explore to improve patient care and support staff.

We also want to reduce healthcare costs if we can come up with an innovative, less expensive way of doing something and reduce our impact on the environment.

The aim and current state of Innovate Health and the Research Office is to create a ‘one-stop-shop’ for TUH staff, industry and academic partners in order to create partnerships, support staff in conducting research and developing innovative solutions for patients and the healthcare system.



The Current State: This figure illustrates how Research & Innovation works in TUH. It shows the enablers feeding into the Research & Innovation Offices that enable Research & Innovation to take place.



Until now Research & Innovation have been operating as separate departments. With the Research Strategy being reviewed it is timely for Research & Innovation to merge. The purpose of this document is to highlight the Strategic priority areas for the Research & Innovation Strategy 2024-2029.

Our Intention

As a Hospital, deeply embedded in our community we intend to evolve as an organisation that will uniquely embrace change, bring change that is intended and disrupt the norm from a patient centred perspective in order to improve healthcare.

We intend to identify the areas needing change and to bring clarity to how these changes can be made. TUH will be a key differentiator as a place to perform the study, implement and measure the outcomes. We intend to achieve our strategic priorities using the following approaches:

Research & Innovation in Action

- > Deliver an Implementation plan
- > Develop Business Plan for sustainability of R&I

Strategic Priorities at a Glance

Infrastructure/ Enablers

Objectives:

- Scale Research & Innovation capacity and governance
- Physical infrastructure
 - new state of the art Innovate Health building
 - Clinical Research Facility

What success looks like:

- Delivery of the Research & Innovation strategy
- Recruitment of core staff for the Innovate Health building, including the Clinical Research Facility
- Increase the engagement of staff and service users with research and innovation
- Increase the impact of research and innovation projects, e.g. delivery of new treatments and technologies
- Two to three large scale projects mandated by corporate aligned to the Hospital strategy that would turn the dial on key hospital objectives & mitigate risks to delivery of the Hospital Strategy. The areas of focus will be Healthcare Data, Community & Integrated Care and Sustainability

Strategic Alliances/ Collaborative Partnerships

Objectives:

- Patient engagement
- Academic partnerships
- Industry partnerships
- Community collaborations

What success looks like:

- Develop and maintain academic, industry, governmental body, HSE and healthcare community relationships
- Ensure these relationships are mutually beneficial where possible, e.g. management of intellectual properties, funding
- Increase the impact on patient health and wellbeing

Culture & Awareness

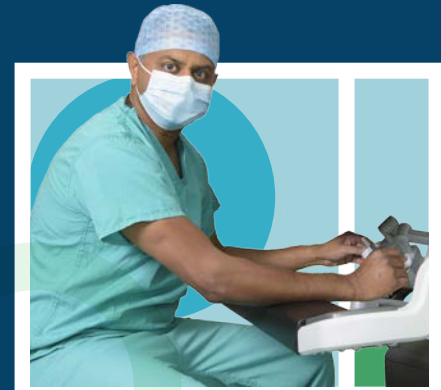
Objectives:

- Education and signposting to external training opportunities
- Attract and retain staff
- Patients have access to Research & Innovation

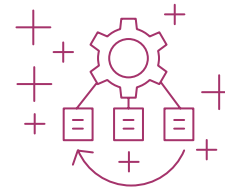
What success looks like;

- Culture of change
- Delivery of education packs
- Delivery of events for staff and service users
- Successful communications campaign
- Staff awards and recognition
- Environmentally sustainable

TUH Research & Innovation Strategy Framework



Infrastructure / Enablers



Dedicated core staff, resources and space. A key aim of this strategy is to provide the infrastructure and enablers for research and innovation to scale on the frontline.

Through this strategy feedback was obtained from all stakeholders (Section 3) and a major threat to this scalability was identified as the lack of protected time that staff have to engage in research and innovation and space required.

- In order to increase this capacity core staffing will be created to support staff in the project management, regulatory and administrative burden associated with research and innovation, including research assistants and data analysts.
- A detailed implementation and business plan will be developed in order to scale the supports provided by the Research Office and Innovate Health.
- This support will enable more engagement by frontline staff to disrupt the status quo and improve healthcare.

- This staffing will also provide more capacity to engage with industry, government and academic partners to work together to address pressing challenges in healthcare.
- A designated onsite hospital build, the Innovate Health building, will provide the additional space required for this expansion, for both Research & Innovation.

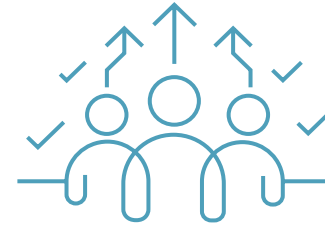
Increase Impact

To date research studies and innovation projects have been developed from the ground up with frontline staff as the key drivers of these studies and projects.

- The impact of these projects will be continuously evaluated and results will be disseminated.

- In addition to the ground up approach there is now also the need to develop a corporate strategic approach in which two large scale projects are matched with our population/ service user needs and aligned with the strategic direction of the Hospital Board.
- Process indicators and output measurements will be agreed and oversight provided by the Research & Innovation subcommittee of the Hospital Board.

Strategic Alliances / Collaborative Partnerships



This priority focuses on harnessing partnerships and collaboration to scale research and innovation and optimise efficiency. The objective is that we use these partnerships to ensure benefit for patients and staff

Patient Engagement

The purpose of the development of this strategy is to increase the impact on patient health and wellbeing and support staff to provide the best quality of care.

Our patients and their families, as users of the healthcare system, often have unparalleled insight into what research should be conducted, what innovative solutions are needed and how they are designed and delivered to meet their needs.

- Ensure patients and service users are at the centre of research & innovation to transform their health and wellbeing
- Develop research & innovation within TUH to a level where every patient has an opportunity to participate
- Disseminate research & innovation outputs to TUH staff and patients
- Develop distinct initiatives and actions to capture the research & innovation priority areas for patients and service users

- Provide opportunities for patients to be involved in research & innovation
- Co-design research studies and innovative solutions with patients and carers to improve healthcare and better serve our patients and family members

Academia, Industry, Government bodies and Community healthcare partners

- Increased and centralised access to clinical and patient expertise by Industry and Academia
- Maximise links with Academic Partners, Community Healthcare Partners, Government bodies and Industry with an interest in health research & innovation
- Develop clear guidance documents, templates and over-arching agreements for collaborations with academic and industry partners

- Facilitate linking of consultants with industry partners for clinical trial feasibility studies
- Continue to build our network of relevant advisors with whom innovators can be matched on an ad hoc basis, depending on specific needs
- Develop a mechanism where industry have visibility of key challenges for the healthcare system and have access to clinical expertise in the development of products and/or solutions
- Develop a roadmap for the development and scale of innovative product solutions identified by staff with our strategic partners
- Ensure the expertise of staff and patients is embedded in all new innovative solutions

Culture & Awareness



In order for Research & Innovation to develop and scale the environment needs to be right. There is a strong culture of research & innovation in TUH and an environment where people can put forward their ideas. We will foster and develop this culture where staff are inspired, empowered and enabled to challenge the norm.

- Provide staff with the training, skills, mind-set and tools to conduct research & innovation projects through in-house training and training offered by academia, government bodies and industry partners
- Provide support through the Research Office and Innovate Health for all aspects of a research and innovation project
- Obtain feedback from staff, patients, academia and industry
- Provide support through Innovate Health for innovation funding proposals and regulatory compliance
- Develop a simple library of tools, methods and guidelines on research & innovation
- Continue to develop awareness of the offerings of the Research Office and Innovate Health for Staff, patients, academia, industry and our community health partners
- Develop a branding strategy for research
- Develop a communication strategy aimed at the following:
 - Social media
 - Website
 - Exhibitions and conferences
 - Word of mouth
- Increase staff Awards and Recognition as leaders nationally and internationally in research & innovation

Appendices




Appendix 1

TUH Research & Innovation Strategy Process

Process for the development of this strategy Eg. Stakeholder engagement; Workshops, individual interviews.



SWOT Analysis Research & Innovation in TUH



Strengths

Culture & Expertise
Strong culture of research & innovation with a mandate from the Hospital board. Trained and motivated staff.




Weaknesses

Capacity
Need to develop capacity across the system for sustainability and scale.



Opportunities

Location
Global Medtech Industry located in Ireland and access to Europe funding and market. Location of the first in Ireland hospital based translational medicine centre.



Threats

Funding
Lack of a sustainable funding stream for offices and protected time for staff.



Threats

An identified threat to achieving our aims was identified as a lack of protected time for clinical engagement in research and innovation.

In order to mitigate against this risk the research & innovation offices can support clinicians in the administrative and compliance side of research & innovation e.g. legal, data protection and project management.



		Jan 1, 2024	April 1, 2024	Aug 1, 2024	Dec 1, 2024	Dec 1, 2025	Dec 1, 2026	Dec 1, 2027	Dec 1, 2029	
3.0	Strategic Alliances / Collaborative Partnerships									
3.1	Increase Patient Engagement									
3.1.1	Disseminate research & innovation outputs to TUH staff and patients every quarter									
3.1.2	Develop distinct initiatives and actions to capture the research & innovation priority areas for patients and service users									
3.1.3	Provide opportunities for patients to be involved in Research & Innovation									
3.1.4	Co-design research studies and innovative solutions with patients and carers to improve healthcare and better serve our patients and family member									
3.2	Increase strategic alliances across Academia, Industry, Government bodies and Community healthcare partners									
3.2.1	Develop clear guidance documents, templates and over-arching agreements for collaborations with academic and industry partners									
3.2.2	Develop a mechanism where industry have visibility of key challenges for the healthcare system and have access to clinical expertise in the development of products and/or solutions									
3.2.3	Develop a roadmap for the development and scale of innovative product solutions identified by staff with our strategic partners									
3.2.4	Develop a working relationship with HSE, regulatory bodies, State bodies and other healthcare providers in relation to implementing and scaling Research & Innovation Project									

		Jan 1, 2024	April 1, 2024	Aug 1, 2024	Dec 1, 2024	Dec 1, 2025	Dec 1, 2026	Dec 1, 2027	Dec 1, 2029
4.1	Develop a simple library of tools, methods and guidelines on research & innovation	—————							
4.2	Continue to develop awareness of the offerings of the Research Office & Innovate Health for Staff, patients, academia, industry and our community health partners	—————							
4.3	Develop a branding strategy for research			—————					
4.4	Develop a research & innovation communication strategy	—————							
4.5	Increase staff Awards and Recognition as leaders nationally and internationally in research & innovation	—————							



Appendix 3

Acknowledgements

We would like to thank all stakeholders for their time in the development of this Research & Innovation Strategy. We recognise that this will be a dynamic document and as such we are grateful for their continuous commitment.

Ms. Lucy Nugent,

Chief Executive of TUH

Mr. John Kelly,

Deputy Chief Executive of TUH

TUH Research & Innovation Subcommittee of the Board

Board Members

- > Dr. Vivienne Byers, Chair
- > Mr. Mike Beary
- > Mr. Martin Lyes
- > Ms. Anne McKenna, Board Secretary

External Committee Members:

- > Prof. Richard Reilly
- > Ms. Lorna Ross
- > Mr. Gavin Duffy

TUH Hospital Board

TUH Executive Management Team (EMT)

TUH Internal Stakeholder Engagement

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- > Ms. Anna Smyth
- > Ms. Sinead Gill
- > Mr. Alexander Fives
- > Mr. David Addie
- > Dr. Patrick Mitchell
- > Prof. Mark Little
- > Mr. Neil Tilley
- > Mr. Eoin Doogan
- > Prof. Seamas Donnelly
- > Prof. Seán Kennelly
- > Prof. Dominick McCabe
- > Dr. Yvelynne Kelly,
- > Dr. Cillian Clancy
- > Dr. Hannah O’Keffee
- > Prof. Sinead Murphy
- > Dr. Ronan Desmond
- > Ms. Maeve Murphy
- > Prof. Catherine Wall

Tallaght University Hospital Foundation

Adelaide Health Foundation

Meath Foundation

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- > HSE Spark Innovation Programme

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**ADELAIDE
HEALTH
FOUNDATION**



The Meath Foundation
Fondúireacht Na Mí

Healthcare Research, Education, Quality Improvement
& Arts in Health at Tallaght University Hospital

TUH would like to acknowledge the incredible support provided by the Hospital foundations in the past and in the future in the delivery of this strategy.



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