

Research & Innovation

Strategy 2026 - 2030



giveblood.ie



Foreword

I am delighted to present the IBTS Research & Innovation strategy for 2026-2030. It is essential that we are prepared for new and emerging opportunities, as well as meeting the challenges of donor recruitment, changing therapies, blood component production and laboratory testing. Importantly, we will support our staff in their research endeavours, celebrate our achievements and promote a culture of innovation and collaboration.

We aim to be research leaders, at the forefront of blood transfusion medicine, providing answers and evidence that ultimately benefit our donors and patients.

Dr. Allison Waters
Head of Research & Innovation
April 2026



Developing Our Research & Innovation Strategy

We are responsible for the national blood and tissue supply for Ireland. A core function of the IBTS, as set out in its Statutory Instrument, is to ‘organise, provide, assist or encourage research and the training and teaching of persons in matters relating to blood transfusion, transplantation and preparation of blood products’. The outcomes of high-quality research may positively impact many aspects throughout the vein-to-vein process, as well as a broad range of allied health-related fields. Since the launch of the first IBTS Research Strategy in 2021, we have demonstrated improvements in our research performance through our Key Performance Indicators (KPIs) of research communication, publication, collaboration and grant acquisition. The IBTS Strategy 2026–2030, A Healthier Tomorrow, provides a framework for us to deliver our new research and innovation strategy. This strategy was developed over the course of 4 months, during which there was consultation with the Medical and Scientific Directorate and the Executive Management Team, the Research and Development Board-sub-committee, experienced research staff, and the wider organisation through a staff survey.



Stakeholder Engagement

Benefits of Research	• Provide information that supports a more efficient service through process and product improvements • Critically review current donation collection services • Collate data on the clinical uses of blood and associated patient outcomes • Deliver safer donor care • Public health surveillance • Translation of innovative therapies that advance the transfusion service • Contribute to peer-review academic publications • Adaptive capacity to deal with an expanding and diversifying population • Strengthen organisation reputation through enhanced staff expertise and academic collaborations • Increase public trust in the safety and innovation of blood services • Raise the profile of the blood service with the clinical community and international peers
Strengths	• Expanding research team • Strong clinical and biomedical focus • Representation on collaborative networks • Ability to translate scientific evidence into real-world improvements for donors and patients • Maintaining IBTS at as a world class service • Strong leadership and support • Development of subject matter experts in key areas
Challenges	• Provision of resources, most critically, time, to support research • Regulatory requirements • Inherent uncertainty of research outcomes • Support for staff to perform research in their own subject areas • Involvement of the wider medical community
Critical for Success	• Expert Collaboration & Participation • Conference & committee participation • Acquisition of external grant funding • Education & Public Engagement • Culture of Innovation • Supportive regulatory framework • On-site research facility and laboratory • Larger research team to progress key research and grant-funded initiatives

Research Strategic Environment

IBTS	1. A Healthier Tomorrow , Irish Blood Transfusion Service Strategy for 2026-2030	• Create an innovation ecosystem to support future-readiness • Develop a solid foundation for sustainable growth • Grow and Diversify our Donor base, our Products and Services • Empower our People
	2. IBTS Research & Development Strategy 2021-2023, Addendum 2024-2025	• Culture to embed research opportunities is an everyday activity • Enabled by strategic partnerships
	3. IBTS Medical Model-of-care	• Embed clinical transfusion research into the medical role
National	4. Impact 2030: Ireland's Research and Innovation Strategy	• Research & Innovation is central to addressing Ireland's social, economic and environmental challenges through greater interdisciplinary research activity
	5. National Action Plan for Open Research 2022-2030	• Institutions must facilitate open research and support the values underpinning this
	6. Use of Research Evidence in the Health Service Executive (HSE) in Ireland - A Study with Senior Decision-Makers	• Describes how many sources of evidence and pre-existing data, including research findings, should inform decision-making
	7. HSE National Policy for Consent in Health and Social Care Research	• Primary objective is to place the prospective research participant at the centre of the research process
	8. The Health Research Board Strategy 2021-2025	• Highlights how productive research is enhanced by fostering European and international collaboration
	9. Patient-Public Involvement	• Critical component for accessing research funding • Supports transparency of research activities, a key component of the Health Research Regulation

European	10. European Blood Alliance Strategy 2023-2026	• Highlights blood safety as a key global challenge and outlined the need to support universal access to safe and quality assured blood products
	11. European Union (EU) Global Health Strategy	• Supports expanding the EU's international health partnerships
Blood, Tissue & Cell Establishments	12. Ten-year vision of NHSBT for stem cell transplantation and cellular therapies	• Recommends a strong and sustainable world-class clinical infrastructure • Creates capacity to meet increased demand for delivering advanced therapies • Builds a workforce fit for the future
	13. Lifeblood Australia Beyond 2020 – Connected, Collaborative and Curious	• Strengthen research support for the core business • Raise research profile • Attract and retain expert researchers • Extend the reach of the service
	14. Canadian Blood Services Innovation and Portfolio Management (2022-2023)	• Encourages a broad research and education collaborative and multidisciplinary network
	15. Danish Strategy for Personal Medicine (2022-2027)	• Make personalised medicine part of everyday clinical practice • Inclusive of patients' views and perspectives • Use health data wisely
	16. Sanquin	• Focus on patient, product and donor • Dedicated donor studies programme



Research Vision

A healthier tomorrow, underpinned by life-changing research



Research Mission

We save and improve lives by providing the expert research evidence to deliver quality blood and tissue services – powered by generous donors, skilled teams, and strong academic partnerships.

Our mission is to engage in research that ultimately:

1. Supports and develops the blood and tissue services
2. Grows and extends our research expertise and profile
3. Enables secondary use of data and donated material for health research



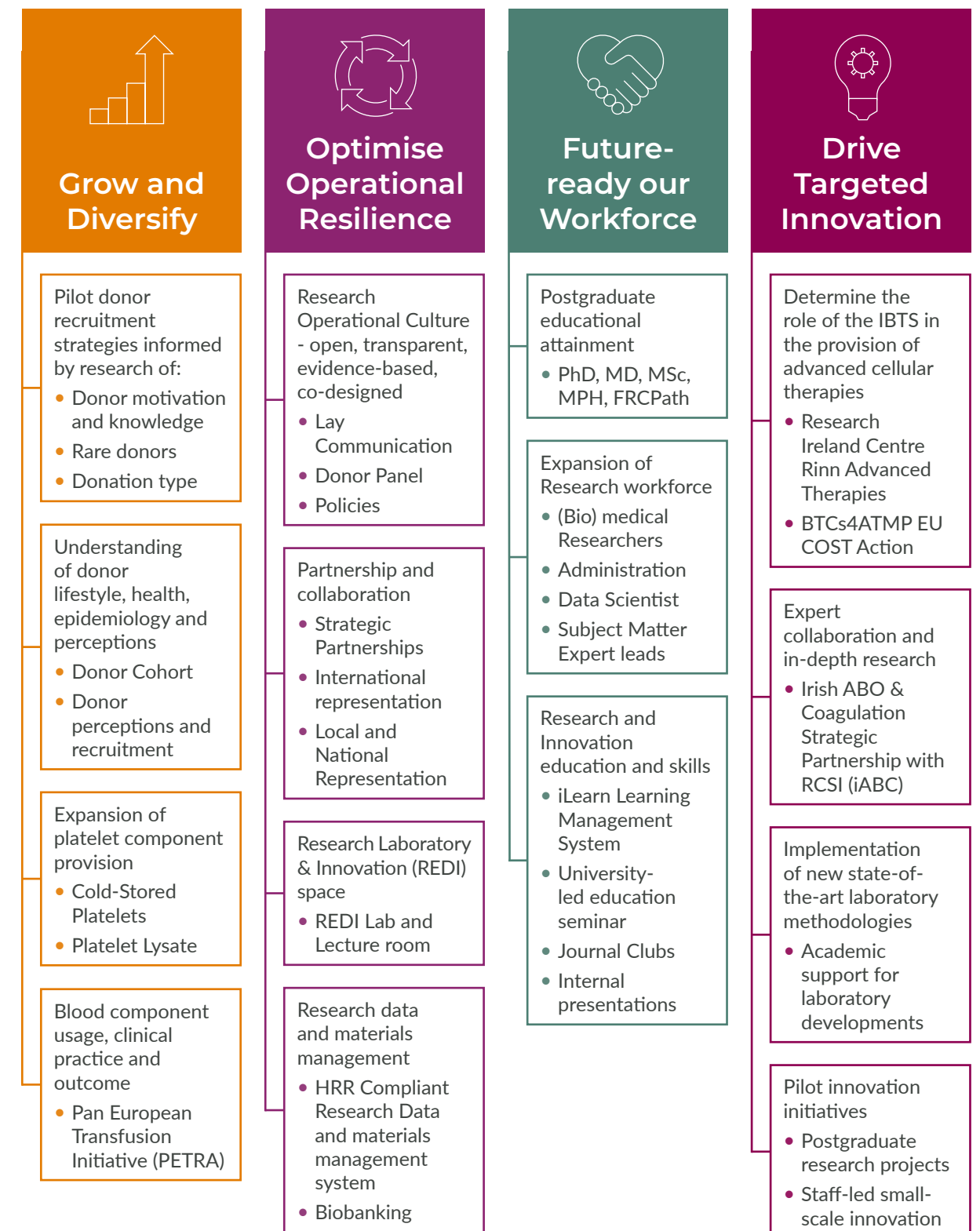
Research Values

- We love our donors
- We improve patients' lives together: We work together and collaboratively with clinical and academic colleagues to ensure the best research outcomes
- We lead by example: We are open and transparent in all our research activities
- We strive for excellence
- We are one IBTS

Research Governance

Projects and spending are overseen the IBTS Research and Development Board Sub-Committee (RDC) under agreed Terms of Reference. The RDC consists of members of the Board and external experts, that can provide valuable and insightful contributions to its proceedings. The committee reports directly to the IBTS Board, and is tasked with ensuring that there is accountability for both the funding and the nature of research within the organisation. The inception, progression and completion of all research projects is overseen by the Head of Research & Innovation (HoRI). The HoRI, under the guidance of the Medical and Scientific Director (MSD), is tasked with providing local governance, expert leadership and research support. The outcomes of research are used to inform decision-making on service developments and changes.

Strategic Alignment



Research & Innovation Strategic Pillars



Grow and Diversify

Ambition:

Provide the research evidence to inform and underpin strategies for growing and diversifying services to donors, patients and the production of Substances of Human Origin (SoHO).

Objectives:

1. Pilot donor recruitment strategies informed by research on donor motivation, knowledge and perception information.
2. Gain a deeper understanding of donor lifestyle, health, epidemiology and perceptions.
3. Expansion of component provision for patients and health researchers.
4. Collate blood component usage, clinical practice and patient outcome to inform future policy.

Actions:

- > **Marketing strategies:** Develop population specific donor recruitment strategies and monitor for effectiveness. Using social scientific methodologies, expand understanding of donor perceptions, barriers and motivations.
- > **Donor Cohort:** Create a cohort of donors for on-going biomedical assessment for evaluating and developing public health, surveillance and infectious disease screening policies. Gain a deeper understanding of our donor populations (whole blood, apheresis, plasma, rare, Hereditary Haemochromatosis) and the factors impacting donor recruitment, qualification and welfare. Bridge the data gap between donor and SoHO product quality, function and transfusion outcome.
- > **Cold-Stored Platelets:** Better understand the function and quality of cold-stored platelets, as part of a Health Research Board Applied Partnership Award (HRB-APA) with the Royal College of Surgeons of Ireland (RCSI), in preparation for producing this re-emerging blood component.
- > **Platelet Lysate:** Re-purpose unused platelets, ready for discard, to produce platelet lysate, to support laboratory cellular growth and expansion.
- > **Pan European TRAnsfusion Initiative (PETRA):** Support the development of a federated European vein-to-vein data infrastructure, through expert collaboration with European Blood Alliance and European Haematology Association colleagues. Clinical data collated will help model blood component usage, clinical guideline adherence and transfusion outcome.
- > **Cells for GMP-manufacture:** Re-purpose immune cells, collected in filters through the donation (apheresis) or production (whole blood) process to produce 'GMP-ready' cells for commercial manufacture.



Optimise Operational Resilience

Ambition:

To support the development of a resilient, sustainable and responsive research operational infrastructure, that harnesses the research capabilities within the organisation, enables project ideation and development, and is underpinned by research best practice.

Objectives:

1. Embed a research operational culture that is open, transparent, evidence-based and co-designed.
2. Promote and support an infrastructure framework that further develops and progresses research partnerships.
3. Create a dedicated research laboratory to expand 'in-house' capabilities.
4. Establish a modern innovation space for creative problem-solving, co-design and collaboration.
5. Implement a sustainable and compliant framework for research consent, data and materials management.

Actions:

- > **Lay Communication:** Optimise and expand 'lay' communications of research activities to maximise transparency to donors and the Irish Public.
- > **Donor Panel:** Create a panel of donors that may be consulted to co-design research projects directly impacting donors, or their donation.
- > **Policies:** Review current research practice policies to ensure compliance with research best practice.
- > **IBTS-Led Conference:** Organise and lead medical & scientific conference, BlooDHIT.
- > **REDI Room:** Support the creation of a Research, EDucation and Innovation (REDI) space, which will include a research laboratory facility, lecture room and the environmental elements necessary to enable innovation and creative problem-solving.
- > **Research Data management system:** Implement a separate framework for managing health research and consent data, that supports on-going compliance with Health Research Regulation, enables adherence to open research, data sharing, and facilitates secondary data analyses.
- > **Research materials management system:** Implement a framework, that is complimentary to the current system but allows for expansion of the provision of non-transfused donated materials for health research.
- > **Biobanking:** Create a biobank of donor samples, with accompanying donor health and demographic information, to enable on-going biomedical assessment of donor and population health parameters.



Future-Ready Our Workforce

Ambition:

To develop and expand research capabilities through postgraduate education, expansion of the research workforce and continuous improvement of research and innovation skills.

Objectives:

1. Increase the number, and level, of staff postgraduate educational attainment.
2. Expand the research workforce, further embedding research as a core activity, increasing skills and enabling project progression.
3. Support research and innovation education and skills development initiatives.

Actions:

- > **Doctor of Philosophy (PhD):** (Co)-supervise ≥ 2 IBTS staff members to attain PhD level education.
- > **Medical Doctorate (MD):** (Co)-supervise ≥ 1 medical doctor to attain MD level education.
- > **Masters level education:** (Co)-supervise ≥ 6 master's level education in biomedical sciences, Public Health and regulatory sciences.
- > **Research workforce:** Develop and implement a long-term research workforce plan, that includes both permanent and fixed-term roles for senior and mid-level research scientists, clinician researcher, data scientist and administrators.
- > **Research Skills:** Run 2 research skills education sessions annually to developing academic writing, presentation, innovation, public engagement and statistical skills.
- > **Working group participation:** Facilitate staff members leading and contributing to international working groups and research networks.



Drive Targeted Innovation

Ambition:

Pilot innovative research and developmental initiatives that inform the future organisational strategic direction.

Objectives:

1. Determine the future role of the IBTS in the provision of advanced cellular therapies.
2. Provide the resources for high-impact medical & scientific research.
3. Support the implementation of new state-of-the-art laboratory methodologies.
4. Develop a framework to pilot innovation initiatives.

Actions:

- > **Virus-Specific Cytotoxic T Cells production:** Re-purpose cells collected in apheresis cones to produce Cytomegalovirus and Epstein-Barr virus specific cytotoxic T lymphocytes as a cellular therapy for immunocompromised patients.
- > **ATMP Regulatory and manufacturing pathway:** Collaborate on developing donor, regulatory and manufacturing frameworks, that include the blood services, for the provision of ATMPs.
- > **Allogeneic Donor Qualification:** Establish standard criteria for qualifying donors for allogeneic cell donation.
- > **Irish ABO & Coagulation Strategic Partnership (iABC):** Understand the impact of ABO on donors with heavy menstrual bleeding and contribute to the shared understanding of the underlying biochemical mechanisms by which ABO impacts bleeding and haemostasis.
- > **Publish laboratory developments:** Support the publication of newly implemented testing and production methodologies.
- > **Staff led small-scale innovation:** Create a framework for supporting and cataloguing staff-led innovative initiatives.

Strategic Success

Pillar	By the end of the strategy, we will have successfully . . .
Grow & Diversify	1. Created a routinely sampled and surveyed donor cohort database. 2. Gained a deeper understanding of the impact of repeated whole blood, platelet and plasma donation on donors. 3. Analysed associations between patterns in infectious disease epidemiology, donor demographics and behaviours. 4. Modelled changes to donor qualification criteria and the impact on donor recruitment and blood supply. 5. Carried out evidence-based recruitment strategies in partnership with the marketing team. 6. Provided evidence to support the production of cold-stored platelets. 7. Supported the production of platelet lysate. 8. Developed a system to re-purpose discarded donated material to produce cells for further manufacture. 9. Contributed to the Pan European Transfusion Research Initiative (PETRA) by developing a database linking donor, donation, and clinical data.
Optimise Operational Resilience	10. Established a panel of donors to contribute to, and co-design research, and to review lay communications. 11. Developed the framework for an accredited donor biobank that complements the donor cohort and may be accessed to inform future research. 12. Reviewed current research practice policies to ensure compliance with research best practice. 13. Organised an international conference, showcasing research partnerships, collaborations and IBTS medical and scientific leadership. 14. Supported the creation of a new modern and inclusive Research, EDucation and Innovation (REDI) space. 15. Implemented a comprehensive and compliant research database that facilitates consent management, data extraction and analysis.

Future-ready Our Workforce	16. Increased the level of postgraduate educational attainment of IBTS staff. 17. Improved the level of involvement in clinical research through supporting clinician researchers. 18. Expanded the research workforce, to support short-term project-specific and permanent long-term research initiatives. 19. Improved the level of research skills amongst all staff, and the expert skill level amongst research team. 20. Enabled staff to lead and contribute to international working groups and research networks.
Drive-targeted innovation	21. Agreed a long-term and compliant business model for the continued provision of donated materials for health research, ultimately driving future health innovation through academic research. 22. Determined the role of IBTS in the provision of advanced cellular therapies. 23. Supported the publication and communication of new state-of-the-art laboratory methodologies. 24. Created a pathway to produce Virus-Specific Cytotoxic T Cells and provide recommendations for future patient care. 25. Deepened our expert research skills through the iABC strategic partnership. 26. Facilitated the publication of, through collaborating with the scientific teams, newly implemented testing and production methodologies. 27. Developed a pathway to support, pilot, showcase and publish organisational research, developments and innovative initiatives.



Strategic Implementation

[illegible]



Irish Blood Transfusion Service

Seirbhís Fuilistriúcháin na hÉireann

National Blood Centre
James's Street, D08 NH5R8.

Tel: 00 353 1 4322800
Email: research@ibts.ie

www.facebook.com/giveblood

www.twitter.com/giveblood.ie

www.giveblood.ie

Donor Infoline 1800 731 137