



Annual Report 2022

Research. Evidence. Action.

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Outcomes and impact in 2022



187

awards across 18 host institutions and research-performing organisations



€56.2m

awarded (including €10.2 million in co-funding/co-investment)



€7.3m

invested in five European joint programmes (including €5.7 million in co-funding from European funding agency partners)



341,639

live records on LINK



2,878

active users on LINK online data system



19

awards worth €4 million with health-related charities (€1.6 million from charity co-funding)



201

funding applications underwent Public and Patient Involvement (PPI) in research reviews. These comprised 166 written reviews and 35 applications to the Health Research Charities Ireland (HRCI)-HRB Joint Funding Scheme, where PPI panel members formed part of the review panel.



€24m

invested in research careers via the Emerging Investigator Awards, the HRB-Irish Clinical Academic Training (ICAT) Programme, and the Structured Population Health, Policy and Health-services Research Education (SPHeRE) programme



15

evidence products produced for the Department of Health (DOH), comprising 4 evidence reviews, 9 evidence briefs, and 2 evidence highlights



€15.4m

leveraged by Irish health researchers in Horizon Europe calls (28 projects)

Chair and Chief Executive's Report

2022 was another highly successful year for the Health Research Board (HRB). It also marked the first full calendar year of operation of our strategy for 2021–2025, *Health research – making an impact*, which sets out how we will advance health research, data, and evidence in order to benefit Ireland's people, society, and economy. Throughout this annual report, we will illustrate some of the many outcomes, impacts, and new directions we took in 2022, aligned to the strategy's six clearly defined strategic objectives.

A particular highlight of the year was the HRB National Conference 2022, which was held in November. The conference (with the theme of Personalised Medicine in Ireland: Advancing research, supporting health system transformation, benefitting patients) brought together many of the HRB's key partners, including the Department of Health (DOH), the Health Service Executive (HSE), Science Foundation Ireland (SFI), and Enterprise Ireland (EI), as well as expert clinicians and scientists (both national and international), health and social care charities, and members of the public.

€56.2m

invested in 187 new awards during 2022 to 18 of Ireland's universities and other organisations where excellent research is undertaken.

The overall objective was to develop a better understanding of the great opportunities offered by personalised medicine, and to discuss the path towards its implementation in Ireland's healthcare system.

The following is a brief snapshot of other HRB highlights from 2022.

Health research delivery and impact

- We made 187 new awards during 2022 to 18 of Ireland's universities and other organisations where excellent research is undertaken. We invested €56.2 million, including €10.2 million in co-funding, in these awards.
- The HRB Evidence Centre contributed to public health policy formulation through 15 substantial evidence review products.
- We published four major reports on alcohol, drugs, and problem gambling, and a further three national reports on our National Health Information Systems (NHIS).
- We drove excellent health data stewardship and health data governance practices through our involvement with national and international partners, including the Health Information and Quality Authority (HIQA) and the Joint Action Towards the European Health Data Space (TEHDAS).



Dr Mairéad O'Driscoll
Chief Executive



Prof. Bernadette Hannigan
Chairperson

- We launched a third phase of the Structured Population Health, Policy and Health-services Research Education (SPHeRE) programme, worth €6 million, to continue building capacity across the country for policy, health services, and population health research.
- We announced the second phase of the Irish Clinical Academic Training (ICAT) programme in October 2022, worth €11 million, bringing the total investment to €21 million and supporting 81 ICAT fellows.
- We awarded 11 Emerging Investigator Awards (EIAs) to support researchers to transition from postdoctoral to independent research stage.
- We grew the HRB's reputation for the provision of quality data and evidence by publishing new information on problem gambling, and we responded to an increase in requests from other organisations looking to undertake further research on data that we safeguard.
- We supported the DOH on the European Commission's Health Emergency Preparedness and Response Authority's (HERA's) Advisory and Stakeholder fora.

Enhancing national, European, and international collaborations

- Working with the Irish research community, we helped Irish researchers secure more than €29 million in European Union (EU) funding. There were 23 successful projects involving 36 individual researchers.
- In partnership with the Irish Research Council (IRC) and the Environmental Protection Agency (EPA), we supported the launch of the DOROTHY (DevelOp interdisciplinaRy apprOaches to health crisis collaboratiVeLY) COFUND fellowship for research on public health crises.
- We continued our successful relationship with the Irish charity sector with another round of our joint funding scheme with Health Research Charities Ireland (HRCI) and made 19 awards worth a combined €3.8 million.
- Together with the Research and Development Division of the Public Health Agency in Northern Ireland, we made a €3.3 million investment to support the work of Evidence Synthesis Ireland and Cochrane Ireland.
- With SFI, we jointly endorsed 10 proposals for onward submission to the National Institutes of Health (NIH) for peer review under the US-Ireland Research and Development Partnership programme.

- We launched a new round of Secondary Data Analysis Projects (SDAP), which bring together researchers, knowledge users, and data controllers in order to answer policy- and/or practice-related questions.
- We were part of successful applications to the European Commission for two new EU Partnerships. These are Transforming Health and Care Systems (THCS) and Fostering a European Research Area for Health Research (ERA4Health).
- We represented HRB interests and strategic priorities on the management boards of five European joint programming initiatives (on Antimicrobial Resistance, A Healthy Diet for a Healthy Life, Neurodegenerative Diseases Research, Rare Diseases, and Personalised Medicine).
- In partnership with the DOH, we continued to provide support for Ireland's participation in the World Health Organization (WHO) Solidarity Trial, which provides access to novel therapeutics to treat COVID-19.
- We awarded €1.2 million to support Ireland's participation in the EU-wide emergency response study looking at vaccine effectiveness for mpox.
- We worked with the DOH; the Department of Further and Higher Education, Research, Innovation and Science; the Department of Agriculture, Food and the Marine (DAFM); and other stakeholders to prepare for Ireland's participation in future proposed EU partnerships (on Rare Diseases, Personalised Medicine, Antimicrobial Resistance, One Health, and Pandemic Preparedness.)
- We joined the EU Coalition for Advancing Research Assessment (CoARA).
- We amended our Host Institution (HI) policy so that research-performing organisations (RPOs) in Northern Ireland could apply for HRB HI status. Once granted this HI status, RPOs in Northern Ireland became eligible to apply for HRB funding.

Supporting an evolving ethical and regulatory environment

We continued to support the work and growth of the National Office for Research Ethics Committees. In 2022, the National Office for Research Ethics Committees:

- Supported the National Research Ethics Committee (NREC) for clinical trials, the NREC for medical devices, and the standing subcommittee of the NREC COVID-19 in delivering 98 ethics opinions for new study applications and 415 ethics opinions for substantial modifications to existing studies over the course of 60 committee meetings

- Launched a second public expression of interest campaign for membership to complement and strengthen the NREC for clinical trials and the NREC for medical devices, appointing 15 new members and bringing the collective membership to 86
- Established a bespoke, ministerially appointed NREC to provide ethical oversight of the National Irish COVID-19 Biobank (NICB), and
- Hosted the National Office for Research Ethics Committees webinar, 'Learnings, insights and next steps'.

We also continued to support the Secretariat operations underpinning the work of the Health Research Consent Declaration Committee (HRCDC). Its activities in 2022 included 10 committee meetings, where it made consent declarations for 11 new health research studies. It also approved 14 amendment applications to existing consent declarations and had oversight of 67 annual reviews.

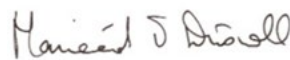
Organisational excellence

Our success in delivering so much resulted from the commitment, dedication, and expertise of all our staff, as well as the skilled oversight of the HRB Board. We extend our sincere appreciation to all involved for our organisation's huge achievements in 2022.

We also highlight our Corporate Operations teams of Finance, Information and Communication Technology (ICT), Human Resources (HR), and Communications, all of which delivered substantial bodies of work. These included enhancements in data, cybersecurity, and financial and corporate governance; increased digital presence; improved workforce planning; and expanded health, well-being, equality, and inclusion initiatives.

Future direction

Without a doubt, the combined endeavours of all of our staff and the HRB Board have set the stage for an exciting future. In 2023 and beyond, we will ensure that the objectives of our current strategy are realised; work further with our valued partners at home and abroad; and continue translating Ireland's research discoveries into health and social care breakthroughs that shape policy and practice, boost health and well-being, deliver better care, and, above all, improve people's lives.



Dr Mairéad O'Driscoll

Chief Executive



Professor Bernadette Hannigan

Chairperson

Snapshot of HRB activities 2022

Addressing emerging health challenges

A €10 million investment for 33 Investigator-Led Projects (ILP) will support high-quality, internationally competitive research that can respond to emerging challenges for health and social care. Research projects on schizophrenia, antimicrobial resistance, and elderly care in hospitals were among the successful awards.



Exploring personalised medicine in Ireland

The HRB National Conference 2022 brought more than 170 stakeholders together, including public and patient voices, to discuss the topic of personalised medicine. Personalised medicine opens new horizons for better, more targeted approaches to healthcare and offers the right treatment for the right person at the right time.

Expanding training for doctors, dentists, and veterinarians

The €21 million cross-border HRB Irish Clinical Academic Training (HRB-ICAT) Programme aims to attract, train, and retain a new generation of world-class clinical health researchers; drive the integration of research and evidence into policy and practice; and improve decision-making and health outcomes.



Examining substance use among young people

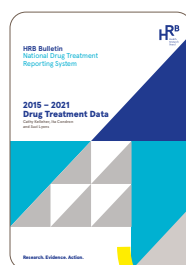
Our report *Alcohol and other drug use among children and young people in Ireland: prevalence, risk and protective factors, consequences, responses, and policies* combined multiple information sources to examine alcohol and other drug use among young people in Ireland. This overview provides up-to-date information about the drug and alcohol situation among young people.

Putting people first

We recognise the burden that mental health difficulties place on those affected and their loved ones, and in December, Minister for Mental Health and Older People, Mary Butler, announced the HRB's lead role in the development of Ireland's first mental health research and evaluation strategy.

Monitoring alcohol treatment in Ireland

Our bulletin *National Drug Treatment Reporting System 2015 – 2021 Alcohol Treatment Data* noted that a total of 50,304 cases were treated for problem alcohol use in Ireland between 2015 and 2021. The figures from the HRB's National Drug Treatment Reporting System (NDTRS) show a decrease in the number of treated cases from 7,618 in 2015 to 6,859 in 2021, together with a slight drop in the proportion of new cases reported.



Cocaine treatment cases triple between 2015 and 2021

HRB figures show continued growth in the number of cases seeking treatment for problem cocaine use, with cocaine overtaking heroin as the main problem drug among new treatment cases reported to the HRB. This brings into sharp focus the growing prevalence of cocaine as a problem drug in Irish society and can inform policy and practice in relation to supporting treatment approaches as well as addressing risk factors and prevention.

Guiding European Union funding

HRB staff acting in National Focal Point and National Contact Point roles provide Ireland's research community with information and detailed guidance on the funding opportunities available from the EU4Health and Horizon Europe programmes respectively. In 2022, Irish researchers secured €29.2 million in annual European Union (EU) funding, the highest amount ever.



Nurturing the next generation of academic researchers

Health inequality, schizophrenia, and therapies in children with cystic fibrosis were three of nine important topics to be addressed by our Emerging Investigator Awards (EIA) for Health 2022 investment of €7 million.

Supporting rare disease research

Our €1 million investment in a new Rare Disease Clinical Trial Network (RD-CTN) adds to the HRB's long-standing support of this important area of health research. Additionally, the Health Research Charities Ireland (HRCI)-HRB Joint Funding Scheme invested almost €4 million in 19 new research projects, many of which investigate rare diseases. Now in its 11th round of funding, the Scheme has funded 153 awards worth almost €30 million.

Highlighting trends in psychiatric admissions

Figures from the National Psychiatric Inpatient Reporting System (NPIRS) *Annual Report of the Activities of Irish Psychiatric Units and Hospitals 2021* show that the number of admissions related to eating disorders among children and adolescents continues to rise. The report also highlights a gradual return to pre-COVID-19 numbers for psychiatric inpatient admissions in 2021, and that depression remains the most common diagnosis on admission to psychiatric units.



Advancing evidence – informed health and social care



Together with the Public Health Agency in Northern Ireland, we made a €3.3 million investment to support Evidence Synthesis Ireland, including Cochrane Ireland. This is an all-island approach to strengthening evidence synthesis and making high-quality evidence central to routine decisions in health and social care.

Supported 10 meetings of the Health Research Consent Declaration Committee (HRCDC)

Established the National Irish COVID-19 Biobank (NICB) Research Ethics Committee (REC) to provide a national ethical assessment of the NICB's operations and governance

Demonstrated excellence in digital governance (in line with General Data Protection Regulation (GDPR) best practices) with our data retention and deletion plan

Reported on 7-year (2015–2021) treatment trends for problem drug and problem alcohol use

Our evidence brief *Initiatives to improve health and well-being outcomes in deprived communities* contributed to formal evaluations of 19 Sláintecare Healthy Communities programmes

Published an evidence review on factors that improve well-being and health in the workplace

Invested in research to attract and retain highly skilled clinical research nurses and midwives in Ireland

Invested €6 million to train 30 PhD students in the fields of population health, policy, and health services research

Published an evidence review that found no definitive evidence that community water fluoridation is associated with negative health effects

Published *Health Research in Action 2021*, the latest edition of this annual report



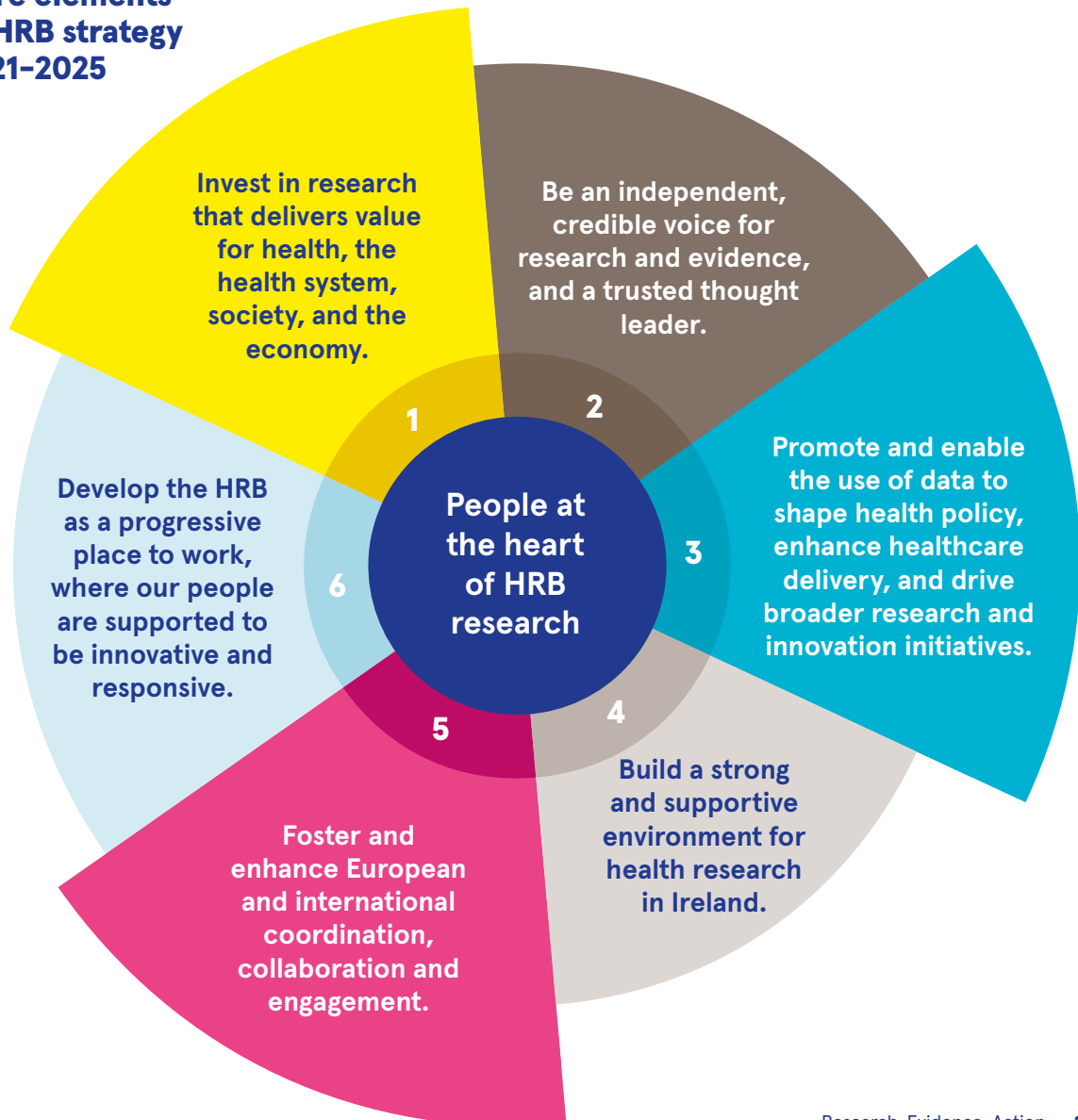
Key deliverables in line with HRB strategy 2021–2025

The HRB is Ireland’s lead public funding agency supporting innovative health and social care research. As outlined in our recent strategy for 2021–2025, *Health research – making an impact*, our vision is for better health through excellent research, data, and evidence, and our mission is to support research that improves people’s health, promotes evidence-informed care, and creates solutions to societal challenges.

Health research – making an impact also details our commitment to placing people at the heart of everything we do, as led by our values as an organisation: leadership, independence, accountability, quality, responsiveness, collaboration, and inclusiveness.

In order to achieve this, our new strategy describes six strategic objectives that will guide our activities. This annual report highlights key achievements during 2022 in line with these objectives, and showcases examples of significant outcomes and successes.

Core elements of HRB strategy 2021–2025



Strategic objective 1

Research that makes a difference

Research enables advances in health and social care that make a real difference to people's lives. The HRB is committed to investing in research that delivers value for health, the health system, society, and the economy.

We do this through a strategic, well-balanced funding portfolio that responds to real-world needs; by collaborating with partners to address challenges and drive innovation in our health system; and by supporting the meaningful involvement of patients, carers, and the public in research. This ensures that HRB-funded research is applied in practice and contributes to better health outcomes for Ireland and its people.

Key items delivered in 2022:

- We presented to the Chief Medical Officer (CMO) and the COVID-19 Advisory Group on current and planned research into COVID-19 and pandemic preparedness.
- We participated in:
 - Regular meetings with the Department of Health (DOH) and Health Service Executive (HSE) through a health research liaison group to advance a broad-based research strategy and culture in the healthcare system

- The IMPACT 2030 Implementation Forum to contribute to Ireland's Whole-of-Government Research and Innovation Strategy, Impact 2030
- The National Cancer Research Group, chaired by the National Cancer Control Programme (NCCP), to monitor and influence national investment in cancer research as set out in the *National Cancer Strategy 2017-2026*, and
- The Ireland-Northern Ireland-National Cancer Institute Cancer Consortium Implementation Group (and associated working groups) to advance cancer research activity between Northern Ireland, the Republic of Ireland, and the National Cancer Institute in the United States of America.

- We supported the DOH on the European Commission's Health Emergency Preparedness and Response Authorities (HERA) Advisory and Stakeholder Fora on the emerging research and innovation agenda for HERA. We also hosted the HERA delegation visit to Ireland.
- We made seven co-funded Applied Partnership Awards (APA) worth €1.6 million.

- We commissioned an independent evaluation of The Irish Longitudinal Study on Ageing (TILDA) and secured €15 million in funding from the DOH to invite a new application for a further three waves of TILDA (from 2023 to 2028).
- We advanced Action 93, '*Develop a National Population Mental Health and Mental Health Services Research and Evaluation Strategy*', from *Sharing the Vision: A Mental Health Policy for Everyone* (2020) by appointing a new Programme Manager. They will establish the Expert Group that will develop the strategy during 2023. We secured extra funding to make five additional research projects in areas aligned with *Sharing the Vision*'s strategic objectives.
- We funded 33 Investigator-Led Projects (ILP) with an overall investment of €11.4 million. This is the HRB's largest ILP scheme to date, and is designed to support highly innovative and internationally competitive research that can respond to emerging challenges for health and social care.
- Together with Health Research Charities Ireland (HRCI), we provided €2.4 million in co-funding investment to support 19 projects that address the identified research priorities of the participating charities. The combined total investment is €3.8 million.
- The HRB and Science Foundation Ireland (SFI) jointly endorsed 10 proposals for onward submission to the National Institutes of Health (NIH) for peer review under the US-Ireland Research and Development Partnership programme.
- We launched the Rapid Response Mechanism to support Ukrainian researchers in crisis (Ucrisis 2022).
- We launched a new round of the Definitive Intervention and Feasibility Awards (DIFA); these support studies that assess the efficacy or effectiveness, cost, and broad impacts of an intervention, and include randomised controlled trials and non-randomised trials.
- The PPI Ignite Network supported the first National Public and Patient Involvement (PPI) Festival, which consisted of more than 40 events during 2 weeks in October.
- We undertook a PPI review process for 201 funding applications. This consisted of 166 applications that received written PPI reviews and 35 applications where PPI panel members, along with scientific panel members, formed the review panel for the Health Research Charities Ireland (HRCI)-HRB Joint Funding Scheme.
- We commissioned a project, awarded to Mazars, to review funding evaluation best practices with a view to informing the development of a new HRB monitoring and evaluation implementation plan for 2023-2025.

Case Study 1

Linking knowledge users and researchers in health and social care

The HRB's Applied Partnership Awards (APA) align with our objective of supporting health and social care research that makes a real difference in people's lives.

The APA brings knowledge users and researchers together from the beginning of a research idea. And because the end users stay connected throughout the entire project life cycle, there is a much greater likelihood that relevant findings can be quickly assimilated into enhanced practice and care.

Commenting on the APA scheme, Dr Catherine Gill, Programme Manager of Targeted Programmes and Evaluation at the HRB, said, "Also notable is its co-funding aspect. The partners fund at least 20% of each award and their investment demonstrates genuine commitment to both the project and getting the results quickly into policy and practice."

In the 2022 round of the APA, partners contributed more than €250,000 on top of the HRB's nearly €1.3 million investment in seven projects.

Those partners are:

1. LauraLynn – Ireland's Children's Hospice
2. Barretstown
3. Diabetes in General Practice
4. Irish Heart Foundation
5. Central Remedial Clinic
6. Epilepsy Ireland, and
7. Irish College of General Practitioners.



Here, we hear from the lead applicants on three research projects funded under this scheme:

1. Project: Memory-making through therapeutic recreation for families of children with life-threatening conditions receiving palliative care at home: Adaptation of a digital storytelling legacy intervention

Partner: Barretstown

Lead applicant: Professor Veronica Lambert, Dublin City University

According to Professor Veronica Lambert:

This research will help children needing palliative care to record their life story and plan for end-of-life with their families. It will review how digital storytelling is used for this in the United States, and work with stakeholders and families to map similarities and differences between there and Ireland. The research will inform future evaluations of digital storytelling and enhance early bereavement support for families of children with life-threatening conditions receiving palliative care at home.

2. Project: Co-designing Life After Stroke support Pathways (CLASP)

Partner: Irish Heart Foundation

Lead applicant: Professor Frances Horgan, Royal College of Surgeons in Ireland (RCSI) University of Medicine and Health Sciences

Professor Frances Horgan said that:

The project will investigate ways to support patients after a stroke and has been co-designed with stroke survivors, stroke advocates, academic experts, and specialist clinicians. There are four elements to the research. These are to rapidly review the evidence on good practice in community-based care for stroke survivors; to identify existing services and how many stroke survivors there are in Ireland; to identify care priorities with patients and carers and other stakeholders; and to co-design a costed, realistic care pathway to implement in the Irish healthcare system.

3. Project: Health information and education resources for women with epilepsy from preconception to postpartum

Partner: Epilepsy Ireland

Lead applicant: Dr Aisling Walsh, RCSI University of Medicine and Health Sciences

Dr Aisling Walsh said:

This project will examine a research gap for women with epilepsy along the reproductive journey. No study has examined the health information needs of women with epilepsy and their families during preconception through to the postpartum period following childbirth in Ireland. Women with epilepsy have consistently highlighted this as a key research need in recent years. Our work will co-produce a series of evidence-informed health educational resources for women with epilepsy and health professionals.

Case Study 2

Celebrating Public and Patient Involvement (PPI) in research

Over 2 weeks in October 2022, more than 2,000 people participated in over 40 events for the HRB-funded PPI Ignite Network's first annual National PPI Festival.

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Established in 2021, the PPI Ignite Network has lead sites at seven universities, with its national office hosted at University of Galway. The Network is a core component in HRB's strategy to involve people in health and social care research. Its inaugural festival had a number of key objectives that included recognising progress to date and increasing public and researcher awareness of PPI.


Edel Murphy, National Programme Manager for the PPI Ignite Network, said:

The events were a mix of in-person, hybrid and online gatherings and used a variety of formats to involve, inform, entertain and inspire discussion. These included conversation cafes, documentary screenings, live podcasting, workshops and online discussions. We were delighted with the results. Our Twitter posts alone received 2,400 likes, 500 mentions and had a reach in excess of 1 million page impressions.


Whether working in laboratory-based environments or in clinical settings, research groups with experience of PPI were keen to share their knowledge and insights during the festival. Here, we highlight three examples:

PPI in arthritis research

Professor Helen French and Dr Joice Cunningham from the School of Physiotherapy, RCSI, helped to mark World Arthritis Day on 12 October with a podcast on how PPI contributes to their arthritis research, the ENACT (managemENT of osteoarthritis in primAry Care in Ireland) project, which is funded by a HRB Investigator-Led Projects (ILP) award. Maria Bolton and Eric Boyle are two members of the ENACT project's PPI panel, and on the podcast they discussed their experience of living with osteoarthritis, why they got involved in the panel, and their contribution to the project to date. The podcast is available to listen to on the Festival section of the [PPI Ignite Network online hub](#), which serves as a free community resource.



The voice of the people was heard; we were listened to and everyone was interested in our story. No one was neglected, nobody was under pressure.



PPI in laboratory-based research

In a webinar, United Kingdom (UK)-based Laura Jacobs, Senior Research Officer at Parkinson's UK, and Bec Hanley, an independent UK PPI consultant, shared their experiences of conducting Parkinson's disease research in a laboratory-based environment where researchers have very little contact with patients and those directly affected by the condition. Meaningful PPI in that situation can be challenging. However, with the right approaches, input from people with Parkinson's disease has provided researchers with new insights that they might not otherwise have considered. The webinar organised by PPI national partner Queen's University Belfast is also available on the [Festival section](#) of the PPI Network website.

The PPI Contributors' Gathering

This was an in-person event organised by and for PPI contributors. Thirty contributors and members of the public new to PPI travelled to Galway from 11 different counties and shared their stories and experiences of PPI. As one attendee said, "The voice of the people was heard; we were listened to and everyone was interested in our story. No one was neglected, nobody was under pressure."

According to Professor Sean Dinneen, the PPI Ignite Network Lead, "We are looking forward to reaching new audiences with the 2023 Festival, and to shining a spotlight on some of the innovation that has happened as PPI becomes further embedded in the Irish research ecosystem."

Strategic objective 2

An independent voice

We aim to be an independent, credible voice for research and evidence, and a trusted thought leader. The HRB Evidence Centre continues to support the generation of independent, credible evidence to inform the decisions of policy-makers, practitioners, and the public.

We also seek to enhance coordination between those involved in evidence synthesis nationally and internationally, and strive to earn and maintain people's trust in the evidence produced, while facilitating dialogue on emerging health research topics.

Key items delivered in 2022:

- The HRB Evidence Centre prepared 15 evidence products. These included:
 - Four evidence reviews on the topics of the impact of community water fluoridation on health, promoting workplace health and well-being, managing dental caries, and the design and delivery of drug treatment, recovery, and harm reduction services
 - Nine written evidence briefs for the DOH, tackling topics ranging from improving health and outcomes in deprived communities and international approaches to women's health, to the regulation of hospital pharmacy services and the role, function, and supply of home care workers, and
 - Two evidence highlights (verbal presentations) on nutrition labelling systems and physician dual practice.
- HRB staff published five research papers based on their work in peer-reviewed journals. These were on topics that included suicide, drug use, gambling, and library use.

- We made 27 Knowledge Translation Awards (KTA) with a value of €1.1 million. These awards help to maximise the potential impact of research findings on policy or practice and/or to communicate research and research findings to the general public.
- We made 15 Conference and Event Sponsorship awards with a value of €75,000. These included six national conferences and seven workshops/seminars.
- We participated in a series of national and international events to celebrate International Clinical Trials Day 2022.
- We hosted the HRB Conference (with the theme of Personalised Medicine in Ireland: Advancing research, supporting health system transformation, benefitting patients), which provided more than 170 attendees with a better understanding of the opportunities and challenges of personalised medicine for patients, the healthcare system, and the public.
- We developed an online and social media campaign to enhance the promotion of HRB research outcomes from our *Health Research in Action* annual publication.
- We implemented communications plans to enhance awareness of European Union (EU) funding available to Irish researchers.
- We continued to build awareness and understanding about the drug and alcohol situation in Ireland through media, events, and publications.
- We engaged with mainstream media and with targeted groups to demonstrate the impacts that our information systems and the HRB Evidence Centre are having on policy and practice.



Case Study 3

The HRB is contributing a credible and balanced voice in policy discussions concerning secondary use of health data


HRB expertise and guidance are making real progress towards ensuring that health data can be accessed and linked in order to answer research and policy questions in ways that are currently impossible in Ireland and Europe.

This is a continuation of our long-standing work and thought leadership in this space. For example, our 2016 report, *Proposals for an Enabling Data Environment for Health and Related Research in Ireland*, stimulated a national conversation about how people's health, healthcare delivery, and health research could be enhanced if Ireland invested in national technical infrastructure and support services for health data access and linkage. It presented a concept called the Data Access, Storage, Sharing, and Linkage (DASSL) model to manage health data safely and securely.


The HRB's understanding of the limitations and challenges involved for data providers and those trying to securely access important health datasets was further enriched by our collaboration with the Central Statistics Office (CSO) to provide researchers with access to the COVID-19 Data Research Hub. The establishment of a Research Data Governance Board to support decision-making on access requests to the COVID-19 Data Research Hub provided timely lessons on safe data access.

Dr Teresa Maguire, Director of Research Strategy and Funding at the HRB, said:

The completion of a HRB-funded project in 2022 to develop a proof-of-concept technical infrastructure to support the DASSL model to enable data access, sharing and linkage for research purposes has yielded important recommendations to feed into policy planning discussions around health data sharing in Ireland and the European Union.



TEHDAS aims to develop joint European principles for the secondary use of health data, and our experiences and groundwork to date made important contributions to the Joint Action.



The Department of Health and the HRB were active participants in a 25-country EU Joint Action Towards [the] European Health Data Space (TEHDAS). TEHDAS aims to develop joint European principles for the secondary use of health data, and our experiences and groundwork to date made important contributions to the Joint Action.

Our prior work became particularly salient with the publication by the European Commission in spring 2022 of a proposal for a regulation on the European Health Data Space (EHDS). This is complex and ambitious and aims to regulate the transmission and sharing of health data across the EU.

The DOH has lead responsibility for EHDS negotiations and implementing any ensuing regulations once finalised.

This adds further context to the approval that the Minister for Health secured in late 2022 to progress a General Scheme of a Health Information Bill. Importantly, from a HRB perspective, the Bill included provisions to enable secure access (via a competent body and subject to safeguards) to health data for the secondary purpose of health research and innovation.

Dr Maguire concludes:

While the impetus for a step-change for data sharing and linkage in Ireland is now greater than ever thanks in part to the HRB, there are numerous examples of best practice to draw from. There may still be obstacles to overcome, and navigating the interfaces and interplay between the Health Information Bill, the General Data Protection Regulation (GDPR) and the new EHDS is critically important.

The HRB is well placed to continue providing expert input and convening the wide-ranging actors involved in health research in Ireland, including the public, to ensure that diverse voices and perspectives are heard as these complex planning discussions progress.

Case Study 4

HRB providing new research into problem gambling in Ireland

In 2022, two HRB publications provided timely evidence on problem gambling to help inform and shape regulatory and public health responses to it.

The publication of the HRB report *Gambling in the Republic of Ireland: Results from the 2019–20 National Drug and Alcohol Survey* and the peer-reviewed paper by HRB staff, 'Gambling in Ireland: Profile of treatment episodes from a national treatment reporting system', are particularly timely given the recent establishment of the Gambling Regulatory Authority of Ireland, which is expected to be up and running in 2023.

Dr Sarah Craig, Head of National Health Information Systems (NHIS) at the HRB, said, "Quality research is vital to informing policy and health and social care decision-making. And the HRB is ideally placed to provide trusted, credible evidence that will help Ireland respond to challenges in areas such as those posed by problem gambling."

Here, we discuss both publications in more depth:

- Gambling in Ireland: Profile of treatment episodes from a national treatment reporting system***

HRB researchers Ita Condrón, Suzi Lyons, and Anne Marie Carew examined 12 years of data (2008–2019) from the HRB's National Drug Treatment Reporting System (NDTRS) to see what could be extracted on problem gambling. The NDTRS is one of four high-quality National Health Information Systems managed by the HRB. Our researchers found that there were nearly 3,000 cases treated for problem gambling during the 12-year period from 2008 to 2019. Almost one-half (47%) of those treated also had problem substance use (alcohol or other drugs) and had started gambling before the age of 17 years.

Dr Suzi Lyons, Senior Researcher at the NDTRS, said:

This is valuable information because there is very little published literature on gambling disorder and gambling-related harm in Ireland. And the numbers that we found may be the tip of the iceberg, as international research shows that as few as between 7% and 12% of gamblers will look for treatment.

Our analysis has the potential to help service providers and policy-makers understand the extent of the problem, the personal and substance-using characteristics of people seeking treatment, and trends in treatment seeking over time.

2. Gambling in the Republic of Ireland: Results from the 2019–20 National Drug and Alcohol Survey

This analysis was based on a survey of 5,762 people and examined gambling trends among those aged 15 years or over in Ireland. It showed that around 90,000 adults are low-risk gamblers, 35,000 are moderate-risk gamblers, and 12,000 are problem gamblers.

HRB Research Officer Dr Deirdre Mongan said, “Men are five times more likely than women to be at-risk gamblers. In terms of the profile of at-risk or problem gamblers, commonly, it is men aged 25–34 years who are living in a deprived area, are unemployed and experience substance use problems such as drug use, an alcohol use disorder or smoking.”

Almost one-half (49%) of people aged 15 years or over said they gambled in the 12 months prior to the survey. The most common type of gambling sees 4 in 10 people buying a lottery ticket or scratch card in person, while 1 in 10 people gamble in a bookmaker’s shop.

The survey noted a marked correlation between problem gambling and substance use (drug use, alcohol use disorder, and/or smoking), with 13% of those with an alcohol use disorder classified as an at-risk or problem gambler compared with 2% of low-risk drinkers.

Strategic objective 3

Trusted data

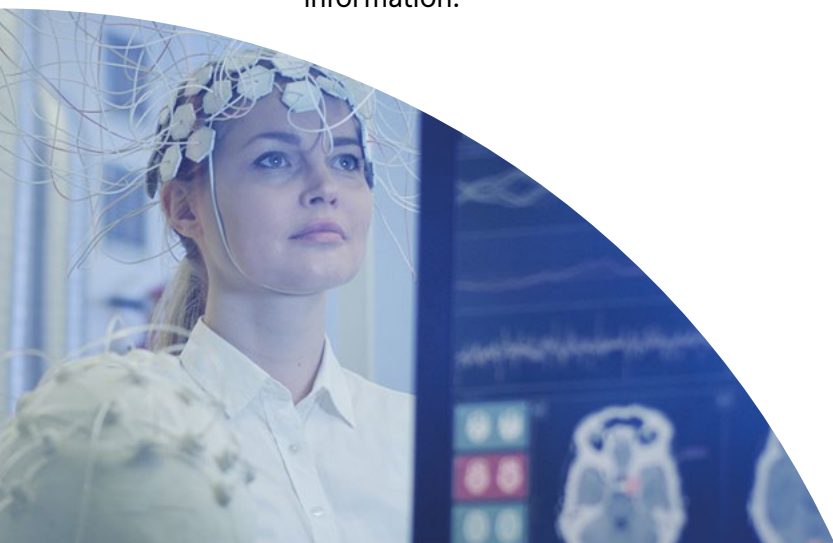
Access to health and social care data, especially when linked with research and statistical data, has the potential to transform healthcare delivery and how we manage our own health. The HRB is already playing a leading role in enabling this.

We are committed to promoting and enabling the use of data to shape health policy, enhance healthcare delivery, and drive broader research and innovation initiatives. Moreover, we will work to increase public understanding of the importance of facilitating secure access to health and social care data for research, policy, and planning. We will also support the adoption of best practice in data management, governance, and reuse by data producers and researchers.

Key items delivered in 2022:

- We launched a new round of Secondary Data Analysis Projects (SDAP) which bring together researchers, knowledge users, and data controllers in order to answer policy- and/or practice-related questions through the use of secondary data.
- We provided secretariat support to the Research Data Governance Board of the Central Statistics Office (CSO) COVID-19 Data Research Hub, which facilitated six applications to access COVID-19 datasets for research purposes.
- We hosted and supported the operations of the Secretariat to the Health Research Consent Declaration Committee (HRCDC), enabling the HRCDC to deliver consensus-based decisions and safeguard personal data for health research in the public interest through the consent declarations it made.
- We collated learnings on the challenges and opportunities for data sharing and linkage at national and European level. Related activities included:
 - Completing work on the Data Access, Storage, Sharing, and Linkage (DASSL) proof-of-concept project (in collaboration with the Irish Centre for High-End Computing (ICHEC)), and presenting headline findings to the DOH
 - Participating alongside the DOH in the Joint Action Towards the European Health Data Space (TEHDAS), which focused on developing data governance and quality frameworks aligned with the General Data Protection Regulation (GDPR) in order to enable access to, and secondary use of, data across Europe required for digital transformation in health and social care-related research and innovation

- Coordinating a TEHDAS country visit to Ireland and engaging with national stakeholders to map Ireland's readiness to join the European Health Data Space (EHDS)
 - Making a submission to the DOH on the published draft EHDS regulation, which requires member states to establish one or more health data access bodies and a coordination body in order to provide access to health data for third parties
 - Making a submission to the Health Information and Quality Authority (HIQA) for its report *Key considerations to inform policy for the collection, use and sharing of health and social care information in Ireland*, and
 - Making a detailed submission to the DOH on the proposed General Scheme of a Health Information Bill and participating in the DOH policy dialogue on the issue of health information.
- We published four major research reports on topics including alcohol, drugs, and gambling. These were: *Gambling in the Republic of Ireland: Results from the 2019–20 National Drug and Alcohol Survey*; *Alcohol and other drug use among children and young people in Ireland: prevalence, risk and protective factors, consequences, responses, and policies*; *European Web Survey on Drugs 2021: Irish Results*; and *Problematic opioid use in Ireland, 2015–2019*.
 - We fulfilled Ireland's contractual requirements for the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) for the year 2022, based on 2021 data.
 - We published four issues (80–83) of *Drugnet Ireland*.
 - We published three HRB NHIS national reports and bulletins.
 - We responded to 100 requests for data from our information systems.
 - We continued to collect data on behalf of the Road Safety Authority (RSA), the National Directorate for Fire and Emergency Management, and the National Office for Suicide Prevention.
 - Our cross-organisational working group on health data met seven times in 2022.



Case Study 5

HRB advancing data-driven personalised medicine

In 2022, we invested €400,000 to co-fund Irish participation in the Genomic Data Infrastructure (GDI) Project, which will lay important groundwork to support best practice in Irish and European patient data management and governance.

The GDI Project is a €40 million investment that brings together national agencies, research organisations, technology providers, and patient organisations in 20 countries. The overarching goal is to design, develop, and operationalise a cross-border federated network of national genome collections and other relevant data that will advance data-driven personalised medicine for the benefit of European citizens.


European 1+ Million Genomes Initiative

The GDI Project is designed to support the European 1+ Million Genomes (1+MG) Initiative, which is driving the development, deployment, and operation of sustainable data access infrastructures across the EU.


The vision is that authorised data users – such as clinicians, researchers, and innovators – will be able to advance our understanding of genomics for better and faster clinical decision-making, diagnostics, treatments, and predictive medicine. Additionally, the safe and secure sharing of data will contribute to improved public health measures that will benefit people, healthcare systems, and the economy.

The HRB is playing a lead role in supporting the advancement of genomics research and seeking to ensure that the data generated are best used for maximum public benefit.

Dr Teresa Maguire, Director of Research Strategy and Funding at the HRB, said, “We live in an era where genomics is increasingly important globally. From cancer to rare diseases to neurological diseases, it holds great promise to develop better diagnostics and more targeted personalised medicines, therapies and interventions.”



Ireland must adopt an approach to data access that balances patients' increasing willingness to participate in genomics research with their legitimate concerns about consent, privacy, equitable access and other important matters.



Public trust

Creating a data infrastructure for genomics and clinical data is a complex project. PPI in research will be critical to its success.

“Ireland must adopt an approach to data access that balances patients' increasing willingness to participate in genomics research with their legitimate concerns about consent, privacy, equitable access and other important matters,” added Dr Maguire.

In 2022, the HRB participated in a number of supporting activities both with the public and with health system stakeholders. These included the following:

- The HRB and the National Office for Research Ethics Committees were among the members of the oversight panel for the Citizens' Jury on the Future Use of Genomics in Health Care and Health Research in Ireland.
- The HRB sat on the HSE's steering group to develop a Genomics Strategy, in addition to working closely with the DOH to progress Ireland's formal membership of the 1+MG Initiative.

Patient benefits

Gianpiero Cavalleri, Professor of Human Genetics at RCSI, Deputy Director of the Science Foundation Ireland FutureNeuro Research Centre of Excellence, and the GDI Ireland National Co-Lead, is excited by the possibilities:

By realising this federated analysis system we will enable Irish genomes to be safely and securely analysed alongside similar datasets from other European countries. Such infrastructure can accelerate the discovery of genetic causes of disease and inform the development of much-needed treatments for conditions such as cancer that can have a devastating impact on our lives.

Case Study 6

HRB highlighting drug data in new ways

Providing accurate, convenient access to reliable data on regional drug use and treatment can serve as a valuable tool in optimising local healthcare delivery and healthcare planning.

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In 2022, our information specialists added a new online resource to the HRB National Drugs Library. The website section ‘Key Irish Data’ highlights important information on the drugs situation in Ireland. Featuring factsheets, it offers policy-makers and service planners the ability to examine the most up-to-date data on problem alcohol and other drug use in their specific region.

This new offering provides data mapped to the nine Community Healthcare Organisations (CHOs) in Ireland (see Figure 1).

The HSE and its funded agencies group services into these nine CHO areas. Each CHO operates through an average of 10 primary care networks serving a population of approximately 50,000 individuals.

Creating a regional data factsheet for each CHO area with information on local drug use and treatment statistics provides policy-makers and service planners with pinpoint data from which to make decisions.

Trusted data sources

The data come from a number of sources. Prevalence data are collated from the HRB National Drug and Alcohol Survey (NDAS) and the *Problematic opioid use in Ireland, 2015–2019* study. Treatment data are provided by two other HRB information sources: the NDTRS and the National Psychiatric Inpatient Reporting System (NPIRS).

Making trusted data useable

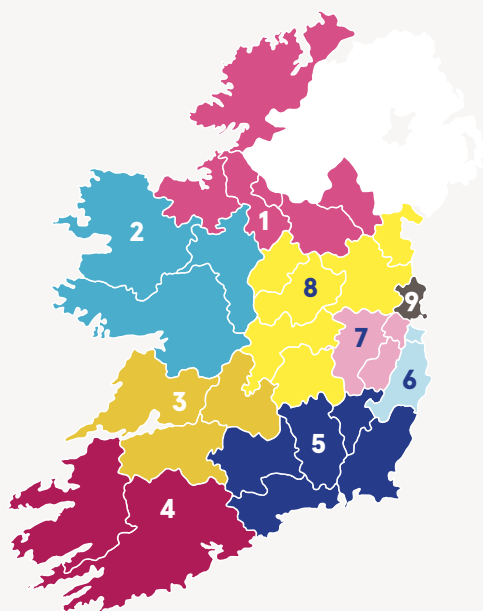
The factsheets contribute to the HRB’s strategic objective to promote and enable the use of data to shape health policy, enhance healthcare delivery, and drive broader research and innovation initiatives. Specifically, they provide quality, timely, and relevant data to service providers and policy-makers. “We have important, trusted sources of data in the Health Research Board, and it’s part of the HRB National Drugs Library’s mission to make these available in useful and accessible formats,” says Mary Dunne, an Information Specialist at the National Drugs Library.

We have important, trusted sources of data in the Health Research Board, and it's part of the HRB National Drugs Library's mission to make these available in useful and accessible formats.

“We saw an opportunity to aggregate information and make it more useable for those interested in local data, such as health service planners, politicians, journalists, and researchers. We were also able to provide an overview factsheet with all CHO data to allow easier regional comparison. And as data from the six new Sláintecare Regional Health Areas (RHAs) become available, we will add new factsheets to the resource.”

Ms Dunne adds, “It has been a wonderful opportunity to work closely with our colleagues in the HRB’s National Health Information Systems (NHIS) and Evidence Centre. We will continue to explore ways to facilitate the implementation of research into policy and practice.”

Visit the [HRB National Drugs Library](#).



- **CHO Area 1** – Donegal, Sligo, Leitrim, Cavan, and Monaghan
- **CHO Area 2** – Galway, Roscommon, and Mayo
- **CHO Area 3** – Limerick, Clare, and North Tipperary
- **CHO Area 4** – Kerry and Cork
- **CHO Area 5** – South Tipperary, Carlow, Kilkenny, Waterford, and Wexford
- **CHO Area 6** – Wicklow and Dublin South East
- **CHO Area 7** – Kildare, West Wicklow, Dublin West, Dublin South City, and Dublin South West
- **CHO Area 8** – Laois, Offaly, Longford, Westmeath, Louth, and Meath
- **CHO Area 9** – Dublin North, Dublin North Central, and Dublin North West

Figure 1: Map of CHO areas

Strategic objective 4

Thriving research environment

Health research that delivers value needs an enabling environment in order to thrive – from skilled researchers and access to infrastructure, to policies that support and enhance good research practice.

The HRB plays a lead role in building a strong, supportive environment for health research in Ireland, fostering connections between the academic and healthcare systems in the process. In partnership with a wide range of stakeholders, we work to ensure that funding for researchers and infrastructure is delivered effectively; that the highest standards of governance, quality, and ethics are met; and that innovative practices are developed and adopted in Ireland.

Key items delivered in 2022:

- We launched a third phase of the Structured Population health, Policy and Health-services Research Education (SPHeRE) programme, worth €6 million. Nine academic partners will deliver this national programme with a further five cohorts of participants. This will add more than 30 scholars to the 137 trained by SPHeRE so far.
- We launched the second phase of the Irish Clinical Academic Training (ICAT) programme in October 2022, worth €11 million, which brings the total investment to €21 million and will result in 81 fellows coming through the programme. ICAT-2 will broaden its intake from medical specialties to include dentists (funded by the HRB) and veterinarians (funded by the Department of Agriculture, Food and the Marine (DAFM)).
- We made 11 Emerging Investigator Awards (EIA) at a total cost of approximately €8.3 million. These awards support mid-career researchers to transition to independent investigators who can translate knowledge generated through research into the healthcare system, policies, or practice.
- Together with our partners (the Irish Research Council and the Environmental Protection Agency), we made the first round of eight awards under the DOROTHY (DevelOp interdisciplinary approaches to health crisis collaboratively) Marie Skłodowska-Curie postdoctoral fellowship on public health emergencies, with a HRB contribution of €400,000 and a total investment of €1.9 million.

- We launched calls for the HRB postdoctoral fellowships – one aimed at academic-based researchers (Applying Research into Policy and Practice (ARPP)) and one aimed at healthcare practitioners embedded in practice (Clinician Scientist Fellowships (CSF)) – with awards to be made in 2023.
- We launched and approved the HRB Impact Award 2022.
- We awarded 50 student scholarships to enable undergraduate students to complete a short summer research project.
- We connected five Irish researchers with French colleagues under the banner of the Ulysses awards in collaboration with the Irish Research Council.
- We awarded three Fulbright-HRB Health Impact Awards.
- We hosted start-up meetings with all recently funded Clinical Trial Networks to reinforce the importance of newly specified clinical trial metrics and monitoring procedures.
- We established research infrastructure engagement forums across all clinical trials infrastructure investments to engage on strategic matters and monitor performance.
- We invested €300,000 in Irish Research Nurses and Midwives in order to define the skill mixes and career pathways necessary to attract and retain highly skilled clinical research nurses and midwives in Ireland.
- Together with the Minister for Health, we marked the transition of the National Irish COVID-19 Biobank from initial setup to the operational phase with the prospective recruitment of patients.
- In partnership with the National Standards Authority of Ireland (NSAI), the HRB hosted a 1-day biobanking workshop called I.S EN ISO 20387 Accreditation – can this assist the development of the biobanking sector in Ireland?



- We continued to support the work and growth of the National Office for Research Ethics Committees and enable it to embed an agile and trustworthy National Research Ethics Committee (NREC) system. This was achieved through the dedicated and invaluable work of the NREC members and collaborative engagement with the DOH.
- We invested €1 million in a Rare Disease Clinical Trial Network in order to connect healthcare professionals, researchers, patient groups, and others with the aim of advancing trials on rare diseases.
- We worked with the DOH to support a case for Ireland's participation in the European Partnership on Rare Diseases and the European Partnership on Personalised Medicine, and engaged with other funders and the wider research community to shape the EU's strategic research agendas that are currently under development.
- We participated in the Irish Platform for Patient Organisations, Science and Industry (IPPOSI) oversight panel for the Citizens' Jury on Genomics, which provided Irish citizens with the opportunity to share their perspectives on the future use of genomics in healthcare and health research in Ireland.
- We secured funding through the EU Digital Europe Programme call to design and develop a roadmap for Ireland's participation in a federated Genomic Data Infrastructure across Europe. This initiative aims to ensure that countries have the necessary data infrastructure in place to collect, store, manage, share, and analyse genomic datasets within and across EU member states in a secure, transparent, and trusted manner.
- We participated in the HSE Steering Group which developed and published the *National Strategy for Accelerating Genetic and Genomic Medicine* in Ireland in December 2022.



- After many years of the HRB participating as an observer, we provided inputs to the DOH to confirm Ireland's formal membership of the European 1+ Million Genomes (1+MG) Initiative. This aims to enable secure access to genomics and corresponding clinical data across Europe for better research, personalised healthcare, and health policy-making.
- We became the first Irish funder to sign the EU Coalition for Advancing Research Assessment's (CoARA's) *Agreement on Reforming Research Assessment*.
- We participated in Science Europe policy working groups, with a particular focus on indicators for cross-border collaboration, open science, science-policy interfaces, and priorities for the new European Research Area.

Case Study 7

HRB supporting research career pathways

In 2022, the HRB continued investing in targeted funding programmes that support the professional growth of both academic researchers and health and social care practitioners with targeted funding programmes tailored to the needs of their distinct career requirements.

A comprehensive suite of funding opportunities underpins the HRB's strategic efforts to attract, train, and retain the skilled researchers who are essential in order for Irish health research to thrive.

Our dual-track approach

The HRB has adopted a dual-track approach to building a thriving, dynamic research community. Each track recognises the distinctive career development pathways that are required for:

1. Health and social care practitioners (namely anyone providing clinical care, including medics, allied health professionals, dentists, nurses, and midwives), and
2. Academic researchers.

According to Dr Annalisa Montesanti, Programme Manager for Health Research Careers at the HRB, "Our training must cultivate the next generation of researchers and research leaders and imbue in them the skills and competencies to collaborate, work in teams and partnerships, and integrate with different disciplines. By doing so, they can be truly creative in their research careers."

Case Study 7 (continued)

The ICAT Programme has created a sea change in how clinical researchers are trained in Ireland, making use of the abundance of high-quality research supervisors across our universities.

Each path is supported by a suite of funding schemes designed to offer research opportunities at every career stage, from undergraduate to postgraduate and postdoctoral stages, and on to independent research leadership. The following outlines two examples for each pathway.

1. Health and social care practitioners

The ICAT Programme is a comprehensive all-island national programme for clinician scientists based at six major Irish universities and their affiliated Hospital Groups. It already boasts an impressive record, having supported 44 training fellows, and a €21 million second phase of investment launched by An Taoiseach Micheál Martin in 2022 will see that number grow to 81.

ICAT Director Professor Deirdre Murray said:

The ICAT Programme has created a sea change in how clinical researchers are trained in Ireland, making use of the abundance of high-quality research supervisors across our universities. This continued support from the HRB will expand the programme and support fellows to gain cutting-edge research skills both in Ireland and abroad. The medical breakthroughs of the future will be made by these trainees.

2. Academic researchers

The SPHeRE programme is Ireland's leading doctoral training programme in population health, policy, and health services research (PHPHSR). Established by the HRB in 2007, it has produced more than 70 PhD alumni who have made, and continue to make, a real impact on our health and social care systems. A third round of funding launched in 2022, worth €6 million, will support a further 30 HRB-funded students, plus a number of additional alternatively funded scholars over the next 8 years of funding (2022–2030). The programme will be delivered by all nine universities in Ireland.

SPHeRE is how and why
I became an academic
researcher.

According to one of the programme's alumni, Dr Sara Burke, PhD, Associate Professor, Centre for Health Policy and Management at Trinity College Dublin (cohort 2008), "SPHeRE is how and why I became an academic and a Principal Investigator in health systems and policy analysis. I loved the PhD peer group learning experience and it is a real privilege now as a SPHeRE alumni to be one of the SPHeRE programme national directors."

Case Study 8

The National Office for Research Ethics Committees: advancing and embedding a national research ethics infrastructure

During 2022, the HRB-hosted National Office for Research Ethics Committees (also known as The National Office), worked closely with the National Research Ethics Committees (NRECs) to progress the national research ethics system in Ireland amidst an evolving regulatory environment.

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The National Office has a statutory function that serves to support the essential work of the NRECs and promote best ethical research practices in order to safeguard the rights, dignity, and welfare of participants at the fore of health research.

The National Office for Research Ethics Committees supports:

- Two NRECs for clinical trials for medicinal products for human use
- One NREC for clinical investigations of medical devices and performance studies for *in vitro* diagnostic medical devices
- The National Irish COVID-19 Biobank (NICB) Research Ethics Committee (REC), and
- The standing subcommittee of the NREC COVID-19.

Dr Emily Vereker, Head of the National Office, said:

2022 was an exceptionally busy but progressive year for the National Office and the NRECs as we navigated transitional and new legislative frameworks, whilst also ensuring rigour, consistency, and transparency in the national research ethics opinions delivered. We placed a strong focus on strengthening connections and collaboration with principal stakeholders such as the Department of Health, and the Health Products Regulatory Authority.

Its core activity in 2022 was to support the NRECs for clinical trials, medical devices and the standing COVID-19 subcommittee in delivering 98 ethics opinions for new study applications and 415 ethics opinions for substantial modifications to existing studies, over the course of 60 committee meetings.



We navigated transitional and new legislative frameworks, whilst also ensuring rigour, consistency, and transparency in the national research ethics opinions delivered.



It also operationalised an intensive, rapid-response, 8-week series of subcommittee meetings to address the backlog of substantial modifications that emerged as studies transitioned from the local recognised REC system to the NREC system.

The establishment of a bespoke, ministerially appointed NREC to provide ethical oversight of the NICB was an essential contribution to the national response to COVID-19 research.

Another 2022 highlight for the National Office was its highly successful and well-attended webinar, 'Learnings, insights and next steps', with presentations from the National Office team; a keynote address from David Archard, Emeritus Professor of Philosophy at Queen's University Belfast and Chair of the Nuffield Council on Bioethics; and a panel discussion with the NREC Chairs.

So too was its representation of Ireland's interests at the European level through participation in the European Network of Research Ethics Committees and the European Clinical Trials Coordination and Advisory Group in order to exchange knowledge regarding ethics and the recently adopted EU Clinical Trial Regulation (Regulation No 536/2014).

Other important 2022 activities included its engagement with stakeholders in the Irish health research environment, including for example the Irish Health Research Forum; the HSE REC Reform Working Group; the Data Protection Commission (DPC); the Irish Pharmaceutical Healthcare Association (IPHA); the Irish Platform for Patient Organisations, Science and Industry (IPPOSI); and the HRB National Clinical Trials Office (HRB-NCTO).

Dr Vereker adds, "In 2022, we also developed the skills and knowledge of the dynamic and dedicated National Office team to meet the demands of its core objectives, and to provide an agile and trustworthy source of guidance for the research community."

Strategic objective 5

Productive international partnerships

From pandemics to climate change, many of the greatest health challenges we face are global and can only be addressed through international partnership.

In order to meet these challenges, we are committed to fostering and enhancing European and international coordination, collaboration, and engagement in health research. We support Ireland's research community to compete for EU and international funding, and we work with policy-makers and other stakeholders to identify opportunities to engage in initiatives that can advance health and broader government objectives.

Key items delivered in 2022:

- In partnership with the DOH, we continued to provide support for Ireland's participation in the World Health Organization (WHO) Solidarity Trial, which provides access to novel therapeutics to treat COVID-19.
- We awarded €1.2 million to support Ireland's participation in the EU-wide emergency response study looking at vaccine effectiveness for mpox.
- We supported Irish health researchers to secure €29.2 million in EU health research funding. There were 23 successful projects involving 36 individual researchers. The projects will address a variety of areas, such as cancer; Crohn's disease; migraine; an artificial intelligence-based clinical decision support system for stroke; mental health; digital empowerment for active healthy living; indoor air quality and healthy living; and greener pharmaceuticals.
- We supported researchers on four successful project applications in a new call for green pharmaceuticals (worth €2.9 million), and a further five successful projects in the environment and health call (totalling €3.4 million).
- We participated in six large information events highlighting opportunities under the Horizon Europe programme and the Cancer Mission.
- We engaged in an EU consortium application, led by Portugal, to establish a network of National Cancer Mission Hubs.
- We supported six successful project applications under Cancer Mission 2021 calls: four research and innovation awards and two coordination and support actions. The awards were worth a combined €1.9 million.

- We facilitated 22 successful applications under Horizon Europe Health Cluster – 1 Health calls, with a combined budget drawdown of €15.5 million.
- We published our first *Gender Equality Plan 2022-2024*. This outlines our current work in the area of gender equality and sets out the actions we are committed to progressing between 2022 and 2024. It is a requirement that beneficiaries under Horizon Europe must have a Gender Equality Plan in place and be committed to reporting against same.
- We participated in a liaison group led by the DOH to inform policy units and health agencies of opportunities through the new EU4Health programme. Eleven nominations were subsequently put forward by the DOH for participation in joint actions across policy units and agencies.
- We hosted multiple information events on opportunities under the EU4Health programme in order to disseminate information on calls for proposals and tenders, and we supported researchers and teams to participate in the first wave of calls, resulting in three successful applications.
- We represented the HRB's interests and strategic priorities on the management boards of five European joint programming initiatives (on Antimicrobial Resistance, A Healthy Diet for a Healthy Life, Neurodegenerative Diseases Research, Rare Diseases, and Personalised Medicine).
- We made five successful awards to investigators from Ireland via joint transnational calls in the above areas.
- We were a partner on two successful applications to the European Commission for two new EU Partnerships. These are Transforming Health and Care Systems (THCS) and Fostering a European Research Area for Health Research (ERA4Health). The HRB will promote and co-fund applications from Ireland as part of joint transnational calls in these areas from 2023 onwards.
- Throughout 2022, we engaged with the DOH; the Department of Further and Higher Education, Research, Innovation and Science; the DAFM; SFI; and other stakeholders to discuss opportunities and priorities for Ireland's participation in future proposed EU partnerships, including on Rare Diseases, Personalised Medicine, Antimicrobial Resistance, One Health, and Pandemic Preparedness.

Case Study 9

HRB supporting ground-breaking EU partnership

In 2022, our commitment to productive international partnerships was demonstrated with our ongoing involvement in the EU Partnership on Transforming Health and Care Systems (THCS), which builds on 10 years of HRB work to create capacity and cultivate leadership in health services and health systems research.

Major societal changes and shifting demographic trends – for example, the potential impact of digitisation on healthcare delivery, an ageing EU population, and various health emergencies – will all challenge health and care systems to provide high-quality health and care services.

Health and care transformation

THCS is a COFUND initiative under the Horizon Europe programme that is designed to support coordinated national and regional research and innovation programmes along with capacity building, networking, dissemination, and other activities required for health and care systems transformation. Its general objective is to transition to more sustainable, efficient, resilient, innovative, people-centred, accessible, and equitable health and care systems.

According to Dr Teresa Maguire, Director of Research Strategy and Funding at the HRB:

As the core THCS activity is funding research and innovation projects, the HRB will play a lead role for Ireland through issuing joint transnational calls on common priorities and topics with other EU funders. The HRB has participated in planning discussions in Europe for this new partnership over the last 5 years and is excited that the application, which comprises knowledge and expertise from 63 diverse organisations in 26 countries, has been approved by the European Commission.



The core THCS activity is funding research and innovation projects. The HRB will play a lead role for Ireland through issuing joint transnational calls on common priorities and topics with other EU funders.

THCS has three main work streams:

1. Filling knowledge gaps with research actions that provide the required high-quality evidence
2. Supporting implementation and transfer actions on the testing of existing solutions and adaptability in different national and regional contexts, and
3. Boosting health and care systems through dedicated activities (for example, capacity building and training, study visits, technical assistance, twinning, and networking) involving different health and care stakeholders.

Priorities

Advanced planning began in 2022 for the first THCS research call, which will issue in 2023. Priorities identified include integrated care, enhanced preventive and self-management strategies, financing of care, access to care, and inequalities.

Research calls will focus on horizontal themes such as efficiency and sustainability, quality and safety, digitalisation, people's needs and user involvement, and the health and care workforce. Calls will also focus on specific health and care sectors demanding attention and change, including long-term care, primary care, and the redefinition of hospital care.

Dr Maguire adds, "Further to our activities in joint transnational calls, the HRB will also engage closely with Ireland's Department of Health and Health Service Executive, as well as all other stakeholders interested in bridging gaps between research and policy and practice, transferring and scaling up best practice models, and health system strengthening."

Case Study 10

EU4Health: harnessing the power of cross-border collaboration

In 2022, HRB expertise and guidance helped to inform wide-ranging Irish stakeholders about the many funding opportunities available under EU4Health, as well as assist them with their applications.

EU4Health is a landmark EU funding programme with a €5.3 billion budget available over a 7-year life span from 2021 to 2027. The programme aims to address long-term health challenges in disease prevention and health promotion through cross-border collaboration that puts research into practice in health systems across the continent.


The 2022 EU4Health work programme supported a broad range of actions under four overarching 'strands' with a cross-cutting focus on cancer. These included:

- Crisis preparedness
- Disease prevention
- Health systems and the healthcare workforce, and
- Digitalisation.

The programme provides funding to eligible entities, health organisations, and non-governmental organisations (NGOs) from EU countries or non-EU countries associated with the programme.

One of the key instruments of EU4Health is the joint action, which provides funding to member state authorities. EU4Health differs somewhat from other types of research grants in that it is not competitive. Annual work programmes are published in the form of tenders to which interested parties apply. Each tender is designed to support a broad range of actions that are grouped around the four main strands.

The work programmes allow applicants an opportunity to apply for funding to directly address their real-world challenges. The international collaboration and teamwork aspects that are built into the EU4Health programme ensure that shared challenges are addressed according to a set of common principles, and hence the knowledge gained from the work can be quickly shared and applied across the respective partner organisations and countries.



According to Dr Amanda Daly, Ireland's National Focal Point (NFP) for EU4Health and Programme Manager at the HRB: "In the precursor to the [EU4Health] programme, Ireland would have signed up to one or two joint actions per year. In 2022, working with the Department of Health (DOH) and other organisations to raise awareness of the funding possibilities under the programme, Ireland signed up to participate in 13 joint actions."

In 2022, the HRB hosted two information sessions on EU4Health for the research community with a focus on cancer research opportunities. We also participated in events run by The Wheel (Ireland's national association of charities) in order to reach the wider healthcare community, including NGOs.

The programme has additional research funding opportunities for organisations such as the Health Products Regulatory Authority (HPRA), the HSE, the National Cancer Registry Ireland (NCRI), the Health Protection Surveillance Centre (HPSC), the DOH, and the National Cancer Control Programme (NCCP).

Dr Daly adds, "The HRB is committed to helping relevant Irish organisations tap into this funding for projects across the health system. The potential pool of applicants goes beyond the traditional research community to span not just academia, research institutes and hospitals, but also public health and related government authorities, companies and civil society organisations like NGOs."

If you are interested in applying for EU4Health funding, please contact Amanda Daly at Amanda.Daly@hrb.ie. Our [EU4Health information webpage](#) also has a range of resources and useful links on all aspects of the programme.

Strategic objective 6

Organisational excellence

As a leading agency for health and social care research, evidence, and data, the HRB's goal as an organisation is to be the best in every way.

We will further develop the HRB as a progressive place to work, where our people are supported to be innovative and responsive. We will maintain our culture of organisational excellence based on shared values, which attracts the best talent, embraces change, and delivers solutions. Our governance structures will support informed and accountable decision-making, and we will communicate with impact in order to strengthen our reputation with our stakeholders.

Key items delivered in 2022:

- We expanded the HRB's digital presence, increasing our following across social media channels by 79%.
- We progressed a new website project to advance our communications infrastructure in order to support more targeted messaging.
- We organised three national events to build awareness and encourage collaboration in the areas of research ethics, personalised medicine, and problem drug use.
- We established and maintained best practice information governance policies and procedures.
- We achieved continuous improvement of our cybersecurity landscape for our internal and public-facing information technology (IT) systems.
- We ran a successful disaster recovery test which demonstrates our ability to continue operations in the event of an interruption to our information and communication technology (ICT) services.

- We upgraded our corporate firewall to a next-generation firewall; this will protect the HRB corporate network over the next 4 years and was installed in July 2022.
- We migrated some aspects of our IT infrastructure to a cloud alternative.
- We acquired new security software, which included a new cloud password manager, a new secure file transfer software solution for highly sensitive data, and an upgrade of the software behind our anti-spam provision.
- We completed a security audit on remote access for staff.
- We drafted and approved a new policy on physical security.
- We developed a rolling workforce plan to align resourcing skills and needs to the HRB's ongoing requirements.
- We developed innovative ways of working using emerging technology and flexible methods.
- We developed an overarching health and well-being framework.
- We promoted a culture of equality, diversity and inclusion, and ethical behaviour in all aspects of HRB work.
- We monitored and reported on strategy implementation and provided information to support decision-making.
- We ensured the effectiveness of internal controls.
- We embedded energy efficiency into our work practices.
- We facilitated the HRB Board to conduct an annual review of strategy implementation.
- We monitored and reported on our adherence to the *Code of Practice for the Governance of State Bodies* (2016).
- We undertook internal audits of key risk areas within the HRB to benchmark these against best practice.
- We adhered to GDPR policies for data management.

Case Study 11

Co-creating the future of personalised medicine in Ireland

In order to explore what personalised medicine (PM) might mean for Ireland, the HRB brought together stakeholders from across the health ecosystem at our National Conference in Dublin on 30 November 2022.

More than 170 people in attendance heard HRB Chief Executive Dr Mairéad O’Driscoll say, in her opening address at the event, “Very simply, personalised medicine is all about making sure that people get the treatment that is right for them, at the right time,” as she introduced a varied programme exploring the associated opportunities and challenges ahead.

Keynote speaker Professor Dame Anna Dominiczak, Regius Professor of Medicine at the University of Glasgow and Chief Scientist for Health for the Scottish Government, brought attendees behind the scenes of her team’s ‘Living Laboratory’ for PM, where clinicians, scientists, and industry are working together to pave the way for the adoption of PM across the Scottish healthcare system.

A series of case studies showcased leading-edge PM research happening in Ireland. These included:

- Professor Norman Delanty of Beaumont Hospital and the Royal College of Surgeons in Ireland explaining how tailored treatments are making a difference to the lives of patients with epilepsy
- Professor Maeve Lowery of Trinity College Dublin and St James’s Hospital presenting her work on how targeting the molecular mechanism behind cancer development can have astounding clinical benefits, and
- Dr Shane McKee of the Belfast Health and Social Care Trust sharing his experience of creating a diagnostic genomics architecture that can help clinicians ask the right questions in order to find the right answers for their patients.

Very simply, personalised medicine is all about making sure that people get the treatment that is right for them, at the right time.



Minister for Health Stephen Donnelly addressed the conference, noting recent positive developments, which included Ireland's first National Strategy for Genetics and Genomics, Ireland's participation in the European 1+MG Initiative and in the European GDI Project, and a recent meeting of the Citizens' Jury on the Future Use of Genomics in Health Care and Research.

Ejner Moltzen, Chair of the International Consortium for Personalised Medicine (ICPerMed), gave an overview of global developments in PM research, describing the pace of change: "10 years down the road, someone might remember we talked about 'personalised medicine'; but by then, we will just be referring to it as 'health' – health for patients and health for citizens."

Navigating the challenges

PM brings a number of challenges. For example, balancing health benefits with the cost of new therapies was addressed by Professor Michael Barry, Director of the National Centre for Pharmacoeconomics.

Meanwhile, Katherine Payne, Professor of Health Economics at the University of Manchester, examined how greater inclusivity could extend PM's benefits.

An overarching conclusion

One conclusion emerged from the day's discussions: in order to truly deliver on the promise of PM, collaboration is vital. Unlocking its benefits requires systemic change, and this can only happen if every stakeholder has a seat at the table: Government Departments and agencies; health system professionals; industry and academic researchers; and, crucially, patients and the public. Prior to the conference, the HRB had reached out to more than 50 community groups to invite people from all walks of life to share their views of PM over video, which was played on the day.

Summing up the day's discussions, Dr O'Driscoll concluded that this vital collaboration perfectly encapsulates the way forward for PM in Ireland: "We need to work together to try to co-create our future in this space."

Case Study 12

Ensuring that the HRB is a progressive place to work

Key to achieving this is supporting our people to be both innovative and responsive; our 2022 achievements in digital innovation and data governance excellence demonstrated real progress towards this goal

The effective management of data and proper data governance are key to meeting requirements under the General Data Protection Regulation (GDPR) and to addressing the growing risk of data breaches.

With this in mind, in 2022, the HRB embarked on an ambitious electronic data retention/deletion plan to ensure that clear processes are in place to access the most relevant data quickly in order to make decisions.

According to Liam Sinnott, Information Communication Technology Manager at the HRB:

Before starting the project, we had defined a retention schedule for personal data. However, we faced challenges with the processes and system capabilities that were in place to support the implementation of the policy. As an organisation we had an overreliance on email as a system of record for data and lacked appropriate classification of data. Furthermore, we also needed to look beyond the scope of personal data to include all data.

We identified three main reasons to retain or delete data:

- A legal obligation to retain data
- A legal obligation to delete or destroy data, and
- An organisational decision to retain data.

Teams then sorted all records/files into logical groupings which had a common retention period. Using this approach, we were able to delete 200,000 files, reducing the number of unstructured data files by almost 15%, from 1.3 million to 1.1 million. We are now in a position to delete/retain content following a systematic approach on an annual basis in line with GDPR or organisational obligations.

Having such a robust information management system in place helps support GDPR compliance, reduces the risk of a data breaches, and decreases the risk of using old data to make decisions. It also enables quicker access to data, which is particularly important for data access requests, as out-of-date data are no longer stored.

Martin Morgan, Director of Corporate Operations, commented:

We completely restructured how we manage our data and created data stewards who have responsibility for managing our data into the future to ensure they comply with all GDPR guidelines and make it easier for us to access.

This was a cross-organisational effort as it impacts on all that we do and was supported at all levels. We now have a robust infrastructure in place that will allow us to manage our data and ensure their integrity.

Work is now under way to optimise our structured data systems for electronic data retention and deletion, such as online data collection for our information systems, our online grant management system, as well as finance and human resources systems. We are determined to operate with and adhere to the highest standards in order to ensure that our systems and processes are reliable, resilient, secure, and innovative.



Appendices



Appendix A

List of HRB publications in 2022

HRB REPORTS

Daly A, Craig S. Annual Report on the Activities of Irish Psychiatric Units and Hospitals 2021. Dublin: Health Research Board; 2022. HRB StatLink Series No. 10.

Doyle A, Sunday S, Galvin B, Mongan D. Alcohol and other drug use among children and young people in Ireland: prevalence, risk and protective factors, consequences, responses, and policies. Dublin: Health Research Board; 2022. HRB Overview Series No. 12.

Hanrahan MT, Millar SR, Phillips KP, Reed TE, Mongan D and Perry IJ. (2022) Problematic opioid use in Ireland, 2015–2019. Dublin: Health Research Board.

Kelleher C, Condrón I, Lyons S. 2015 – 2021 Drug Treatment Data. Dublin: Health Research Board; 2022. HRB StatLink Series No. 8.

Lynch T, O’Neill D, Lyons S. 2015 – 2021 Alcohol Treatment Data. Dublin: Health Research Board; 2022. HRB StatLink Series No. 9.

Mongan D, Killeen N, Evans D, Millar SR, Keenan E, and Galvin B. (2022) European Web Survey on Drugs 2021: Irish results. Dublin: Health Research Board.

Mongan D, Millar SR, Doyle A, Chakraborty S, Galvin B. Gambling in the Republic of Ireland: Results from the 2019–20 National Drug and Alcohol Survey. Dublin: Health Research Board; 2022.

Irish Focal Point to the EMCDDA. Drugnet Ireland. Issue 80. Dublin: Health Research Board; 2022.

Irish Focal Point to the EMCDDA. Drugnet Ireland. Issue 81. Dublin: Health Research Board; 2022.

Irish Focal Point to the EMCDDA. Drugnet Ireland. Issue 82. Dublin: Health Research Board; 2022.

Irish Focal Point to the EMCDDA. Drugnet Ireland. Issue 83. Dublin: Health Research Board; 2022.

EVIDENCE REVIEWS

Lambe K, Farragher A, Moloney T, Sunday S, Long J. Impact of community water fluoridation on systemic health excluding oral health: An evidence review. Dublin: Health Research Board; 2022.

Long J, Lee C, Schwendicke F, Farragher A, Keane M. Management of non-cavitated and cavitated caries in primary, permanent, and mixed dentition. An evidence review. Dublin: Health Research Board; 2022.

Quigley J, Lambe K, Moloney T, Farragher L, Farragher A, Long J. Promoting workplace health and well-being through culture change. An evidence review. Dublin: Health Research Board; 2022.

Pratschke J, Glanville J, Engling F. An integrative evidence review on service user participation in the design and delivery of drug treatment, recovery and harm reduction services. Dublin: Health Research Board; 2022. HRB Drug and Alcohol Evidence Review No. 8.

Condron I, Lyons S, Carew AM. Gambling in Ireland: Profile of treatment episodes from a national treatment reporting system. *Ir J Psychol Med.* 2022;1-8. Available from: <https://doi.org/10.1017/ipm.2022.20>

Dunne M. Developing a Library Association Membership Survey: Challenges and Promising Themes. *EBLIP.* 2022;17(3):3-36. Available from: <https://doi.org/10.18438/eblip30157>

Dunne M. Library associations: making connections to enable effective change. *JEAHIL.* 2022;18(3):11-5. Available from: <https://doi.org/10.32384/jeahil18525>

Lynn E, Cousins G, Lyons S, Bennett KE. Comparing characteristics of suicide to non-suicide drug poisoning deaths, by sex, in Ireland. *J Affect Disord.* 2022;306:80-89.

Mongan D, Carew AM, O'Neill D, Millar SR, Lyons S, Galvin B, et al. Comparing cannabis use disorder in the general population with cannabis treatment seekers using multi-source national datasets: who receives treatment? *Eur Addict Res.* 2022;28(2):103-12.

Appendix B

List of HRB awards made in 2022 to Principal Investigators

| PROJECTS AND PROGRAMMES | | | | | |
|--|--------------------------------------|---|-----------------------|----------------------|---------------|
| Title | Host institution | Scheme | Lead researcher title | Lead researcher name | Total awarded |
| Improving Children's Palliative Care Outcomes in Ireland (iCPCi): using evidence to guide and enhance palliative care for children with life-limiting conditions and their families | Trinity College Dublin | Applied Partnership Awards | Dr | Samantha Smith | €239,998 |
| Co-designing Life After Stroke support Pathways (CLASP) | Royal College of Surgeons in Ireland | Applied Partnership Awards | Professor | Frances Horgan | €239,998 |
| Optimising practice feedback to improve diabetes care | University College Cork | Applied Partnership Awards | Dr | Sheena McHugh | €134,943 |
| The GP Retention Project (GP-R) | Royal College of Surgeons in Ireland | Applied Partnership Awards | Dr | Niamh Humphries | €239,980 |
| Memory-making through therapeutic recreation for families of children with life-threatening conditions receiving palliative care at home: Adaptation of a digital storytelling legacy intervention | Dublin City University | Applied Partnership Awards | Professor | Veronica Lambert | €239,986 |
| Health information and education resources for women with epilepsy from preconception to postpartum | Royal College of Surgeons in Ireland | Applied Partnership Awards | Dr | Aisling Walsh | €174,609 |
| Use of intervention mapping to adapt a transition programme for young people with childhood-onset physical disability in Ireland: the Ignition 2 study | Royal College of Surgeons in Ireland | Applied Partnership Awards | Dr | Jennifer Ryan | €240,000 |
| Stakeholder coalitions to guide future research directions for stuttering treatment: Shaping healthcare delivery and policy | Trinity College Dublin | Conference and Event Sponsorship Scheme | Dr | Amy Connery | €5,000 |
| Best practice for Caring for Patients with Cystic Fibrosis in Primary Dental Care | University College Cork | Conference and Event Sponsorship Scheme | Dr | Martina Hayes | €4,918 |
| Enhancing existing formal home support to improve and maintain functional status in older adults | Royal College of Surgeons in Ireland | Conference and Event Sponsorship Scheme | Professor | Frances Horgan | €4,913 |

| PROJECTS AND PROGRAMMES | | | | | |
|--|--------------------------------------|---|-----------------------|----------------------|---------------|
| Title | Host institution | Scheme | Lead researcher title | Lead researcher name | Total awarded |
| Dementia Research: Bridging the gap between Research, Policy and Practice | The Alzheimer Society of Ireland | Conference and Event Sponsorship Scheme | Dr | Laura O'Philbin | €4,980 |
| 7th Annual Public & Patient Involvement Summer School | University of Limerick | Conference and Event Sponsorship Scheme | Dr | Jonathan Salsberg | €5,000 |
| The Next Generation Diabetes Self-Management Alliance Conference | University of Galway | Conference and Event Sponsorship Scheme | Professor | Sean Dinneen | €5,000 |
| Moving policy evaluation forward: A workshop on how to identify the 'best buys' in public policy for the promotion of physical activity and healthy nutrition | University of Limerick | Conference and Event Sponsorship Scheme | Professor | Catherine Woods | €4,938 |
| BloodHIT Blood Donation Haematology Infection & Transfusion Conference 2022 | Irish Blood Transfusion Service | Conference and Event Sponsorship Scheme | Dr | Allison Waters | €5,000 |
| HRB NCTO International Clinical Trials Day Conference 2023 – "Clinical Research in Ireland 2023" | University College Cork | Conference and Event Sponsorship Scheme | Professor | Joseph Eustace | €5,000 |
| Early Pregnancy Information Day 2022 | Royal College of Surgeons in Ireland | Conference and Event Sponsorship Scheme | Professor | Fergal Malone | €5,000 |
| Migrant health research networking and knowledge exchange seminar: An arts based event | University of Limerick | Conference and Event Sponsorship Scheme | Dr | Kathleen Markey | €5,000 |
| The Inaugural Irish Research Radiation Oncology Group (IRROG) National Conference 2023 | Trinity College Dublin | Conference and Event Sponsorship Scheme | Dr | Sinead Brennan | €5,000 |
| UCC Symposium on Cutting Edge Computed Tomography (CT) | University College Cork | Conference and Event Sponsorship Scheme | Dr | Andrew England | €4,947 |
| "Euro Public Health + Consortium: reaching the future through research partnerships" | University College Dublin | Conference and Event Sponsorship Scheme | Dr | Carla Perrotta | €5,000 |
| The Past, Present and Future of our Emergency Medical Services: Consultation on the Implementation of a National Research Strategy for Paramedicine in Ireland | University of Limerick | Conference and Event Sponsorship Scheme | Dr | Niamh Cummins | €5,000 |

PROJECTS AND PROGRAMMES

| Title | Host institution | Scheme | Lead researcher title | Lead researcher name | Total awarded |
|---|---|---|-----------------------|----------------------|---------------|
| Development of diagnostic solutions for neurodevelopmental disorders caused by ubiquitin-proteasome system dysfunction | University of Limerick | European Joint Programme on Rare Diseases | Dr | Andreas Grabrucker | €323,504 |
| Evaluation of a novel drug combination treatment for nephropathic cystinosis in a new cystinotic rat model | University of Auckland | HRCI-HRB Joint Funding Scheme | Dr | Jennifer Hollywood | €198,188 |
| A pain and wound management approach for RDEB patients via a functionalized collagen-based hydrogel dressing with controlled release of painkillers | University College Dublin | HRCI-HRB Joint Funding Scheme | Professor | Wenxin Wang | €185,501 |
| Development of mRNA Vaccines for Children with High-Risk Neuroblastoma | Royal College of Surgeons in Ireland | HRCI-HRB Joint Funding Scheme | Dr | Olga Piskareva | €229,274 |
| Developing an innovative patient-centred xenograft model of multiple myeloma and its use in testing novel antagonists of JAM-A signalling | Royal College of Surgeons in Ireland | HRCI-HRB Joint Funding Scheme | Dr | Ann Hopkins | €262,415 |
| Cystic Fibrosis Liver Disease (CFLD); predicting and prescribing in the era of CFTR modulators | University College Dublin | HRCI-HRB Joint Funding Scheme | Dr | Emer Fitzpatrick | €230,001 |
| Counting the cost: The contribution of older carers in Ireland and impact of caring on mental health and wellbeing of carers | Trinity College Dublin | HRCI-HRB Joint Funding Scheme | Dr | Christine McGarrigle | €99,272 |
| Participation in physical activity: what really matters to adolescents with physical disability? | Royal College of Surgeons in Ireland | HRCI-HRB Joint Funding Scheme | Dr | Ailish Malone | €99,842 |
| An investigation into the prevalence and experience of psychopathology and mental disorders among children and adolescents with cerebral palsy | Royal College of Surgeons in Ireland | HRCI-HRB Joint Funding Scheme | Dr | Jennifer Ryan | €99,977 |
| Sustaining activity with arthritis (SAWA) following an Arthritis Ireland Be Active With Arthritis (BAWA) exercise programme | Royal College of Surgeons in Ireland | HRCI-HRB Joint Funding Scheme | Professor | Suzanne McDonough | €198,832 |
| Investigating the potential of CTNS-mRNA loaded nanoparticles as a new therapeutic strategy for nephropathic cystinosis | University Hospitals Leuven and KU Leuven | HRCI-HRB Joint Funding Scheme | Professor | Elena Levtchenko | €152,400 |

| PROJECTS AND PROGRAMMES | | | | | | |
|---|---|-------------------------------|-----------------------|------------------------|---------------|--|
| Title | Host institution | Scheme | Lead researcher title | Lead researcher name | Total awarded | |
| Retinal Dystrophy in Ciliopathies (RDCilia): modelling patient mutations to decipher disease mechanisms, interpret Variants of Uncertain Significance, and uncover therapeutics | University College Dublin | HRCI-HRB Joint Funding Scheme | Dr | Oliver Blacque | €300,000 | |
| Surgery, radiotherapy, chemotherapy, but now what? Exploring the rehabilitation needs of people with brain tumours in Ireland | Royal College of Surgeons in Ireland | HRCI-HRB Joint Funding Scheme | Professor | Kathleen Bennett | €299,776 | |
| Pathways to Improving Transition to Adult Services & Enhancing Self-Management in Adolescents with Cystic Fibrosis: A New Era of Treatments | University of Galway | HRCI-HRB Joint Funding Scheme | Dr | Caroline Heary | €148,098 | |
| Ex vivo autologous stem cell gene therapy for Multiple Sulfatase Deficiency | Children's Hospital of Philadelphia | HRCI-HRB Joint Funding Scheme | Dr | Rebecca Ahrens-Nicklas | €200,000 | |
| Advanced, automated compound screening for the identification of therapeutic agents in Multiple Sulfatase Deficiency | Fraunhofer Institute for Translational Medicine and Pharmacology (ITMP) | HRCI-HRB Joint Funding Scheme | Dr | Lars Schlowata | €150,000 | |
| Combining HDAC6 inhibitors with KRAS inhibitors for the treatment of Non-Small Cell Lung Cancer (NSCLC) | University of Limerick | HRCI-HRB Joint Funding Scheme | Dr | Caitriona Dowling | €299,925 | |
| Patient-led development of a "Patient Reported Outcomes" instrument to improve health-related quality of life in patients with Glomerular Disease – PRO-GD | University College Cork | HRCI-HRB Joint Funding Scheme | Dr | Michelle O'Shaughnessy | €200,000 | |
| Long non-coding RNAs: regulators of epileptogenesis and potential targets for therapy | University College Dublin | HRCI-HRB Joint Funding Scheme | Dr | Gary Brennan | €91,286 | |
| Predicting and monitoring outcomes in Autoimmune Encephalitis (POTA) | Royal College of Surgeons in Ireland | HRCI-HRB Joint Funding Scheme | Professor | Norman Delanty | €149,924 | |
| Identifying and Addressing the Barriers to Home Haemodialysis (DREAM) | University of Galway | Investigator-led Projects | Dr | Paul O'Connor | €293,341 | |
| The development of an intervention to improve the use of point-of-care diagnostics in the management of respiratory tract infections in primary care: a mixed methods study | Trinity College Dublin | Investigator-led Projects | Professor | Cristin Ryan | €308,771 | |
| A realist process evaluation of an intervention to promote competencies in interprofessional collaboration among interdisciplinary integrated care teams for older people | University College Dublin | Investigator-led Projects | Dr | Deirdre O'Donnell | €369,881 | |

PROJECTS AND PROGRAMMES

| Title | Host institution | Scheme | Lead researcher title | Lead researcher name | Total awarded |
|--|--|---------------------------|-----------------------|----------------------|---------------|
| Planning and design for quality of life and resilience in residential long-term care settings for older people in Ireland: Research and Universal Design Guidelines for new-build, adaption and retrofit | Trinity College Dublin | Investigator-led Projects | Professor | Desmond O'Neill | €361,698 |
| Addressing the economic and human cost of hospital acquired and nurse-sensitive adverse events in older patients through optimal use of routine discharge data and measurement of missed nursing care | Dublin City University | Investigator-led Projects | Dr | Marcia Kirwan | €369,612 |
| Development of a Core Outcome Set for research studies with older adults in the Emergency Department | University of Limerick | Investigator-Led Projects | Dr | Katie Robinson | €367,239 |
| Investigation of hospital sanitary ware as reservoirs of persistent antimicrobial resistant pathogens and links to bloodstream infections: Implications for infection prevention and control | Maynooth University | Investigator-led Projects | Dr | Fiona Walsh | €368,222 |
| Mental Health and Wellbeing during the Transition from Childhood to Young Adulthood | Economic and Social Research Institute | Investigator-led Projects | Dr | Anne Nolan | €369,284 |
| Exploring the risk factors and consequences of cannabis use in adolescence using population-based data: the "CANNARISK" study | Royal College of Surgeons in Ireland | Investigator-led Projects | Professor | Mary Cannon | €369,636 |
| SocialPaths: Sex-specific socioeconomic pathways to cardiovascular disease risk across the life course | University College Cork | Investigator-Led Projects | Dr | Linda O'Keeffe | €357,508 |
| Developing the IL-36 receptor antagonist as a therapy for colon cancer | University College Cork | Investigator-led Projects | Professor | Elizabeth Brint | €240,434 |
| Examining the diagnostic and functional role of a novel DNA methylation signature in predicting Colorectal Cancer metastasis – "INTERACT" | Royal College of Surgeons in Ireland | Investigator-led Projects | Dr | Sudipto Das | €369,787 |
| Interrogation of novel Glioblastoma Subtypes towards an improved Precision Medicine Approach for Brain Tumour Patients | Royal College of Surgeons in Ireland | Investigator-led Projects | Professor | Annette Byrne | €370,000 |
| The design and psychometric evaluation of a health-related quality-of-life outcome measure (QoLTEN) for adults with Stevens-Johnson syndrome/toxic epidermal necrolysis (SJS/TEN) | University of Limerick | Investigator-led Projects | Dr | Pauline O'Reilly | €355,336 |
| Stromal cell subtypes define distinct pathogenesis in RA and PsA | Trinity College Dublin | Investigator-led Projects | Professor | Ursula Fearon | €358,470 |

| PROJECTS AND PROGRAMMES | | | | | |
|--|--------------------------------------|---------------------------|-----------------------|-----------------------|---------------|
| Title | Host institution | Scheme | Lead researcher title | Lead researcher name | Total awarded |
| IMPRINT: Defining pathogen-specific IMmune PREdictors of bloodstream INfecTion outcomes | Trinity College Dublin | Investigator-led Projects | Professor | Rachel McLoughlin | €369,995 |
| Discovering and modulating mechanisms by which Peptidylglycine alpha-Amidating Monooxygenase (PAM) influences the risk of genetically inherited tissue damage in Rheumatoid Arthritis | University College Dublin | Investigator-led Projects | Professor | Gerry Wilson | €368,365 |
| 'Investigating the relationship between the Complement Pathway and outcomes in Psychosis; from Clinical High Risk to First Episode Psychosis' | Royal College of Surgeons in Ireland | Investigator-led Projects | Professor | David Cotter | €369,866 |
| Neutrophil Plasticity in Infection and Inflammation | University College Dublin | Investigator-led Projects | Professor | Ulla Knaus | €369,881 |
| Interrogating Steroid Non-responsiveness in the Irish Eosinophilic Oesophagitis Population | Maynooth University | Investigator-led Projects | Dr | Joanne Masterson | €369,935 |
| Analyzing the therapeutic potential of anti-inflammatory drugs in brain development, neuronal activity and long-term outcomes after birth asphyxia | Trinity College Dublin | Investigator-led Projects | Dr | Eva Jimenez-Mateos | €368,783 |
| A translational investigation of the anti-inflammatory and antidepressant effects of Psychedelics in Depression | Trinity College Dublin | Investigator-led Projects | Dr | John Kelly | €369,541 |
| Defining how innate immune function is impacted long term in people who have had active Tuberculosis | Trinity College Dublin | Investigator-Led Projects | Dr | Sharee Basdeo | €367,771 |
| Altered histone protein acetylation is associated with dysregulated NK cell metabolism in different cancer types | Trinity College Dublin | Investigator-led Projects | Professor | Clair Gardiner | €369,991 |
| Development, validation and dissemination of the PRECIS-3 tool to support the design of pragmatic randomised controlled trials: Towards making clinical trials part of routine clinical care | University College Cork | Investigator-Led Projects | Dr | Frances Shiely | €370,000 |
| Effective Subsets of Fine-Grained Network-based Neurophysiological Biomarkers for Early Stratification in Amyotrophic Lateral Sclerosis | Trinity College Dublin | Investigator-led Projects | Dr | Bahman Nasseroleslami | €370,000 |
| Comprehensive characterisation of resistance mechanisms for the accurate detection of <i>Helicobacter pylori</i> antimicrobial resistance | Trinity College Dublin | Investigator-Led Projects | Dr | Sinead Smith | €369,424 |
| PRedicting Onset, Variation and Effect of treatment in Rheumatoid Arthritis (PROVE-RA) | University College Dublin | Investigator-led Projects | Professor | Douglas Veale | €369,187 |

PROJECTS AND PROGRAMMES

| Title | Host institution | Scheme | Lead researcher title | Lead researcher name | Total awarded |
|---|--------------------------------------|---|-----------------------|----------------------|---------------|
| STARFISH: Sustained inflammation in preterm infants and multi-organ dysfunction correlates with long term outcomes | Trinity College Dublin | Investigator-led Projects | Professor | Eleanor Molloy | €369,950 |
| Increased Thrombotic Risk in Patients with Myeloproliferative Neoplasms: Linking Inflammation, Metabolism and Hypercoagulability – the CLIMB study | Royal College of Surgeons in Ireland | Investigator-led Projects | Dr | Roger Preston | €369,820 |
| A probiotic strategy for antipsychotic-induced metabolic dysfunction | University College Cork | Investigator-led Projects | Professor | John Cryan | €369,913 |
| Study of role of Platelets In Sepsis (SEPSIS) | Royal College of Surgeons in Ireland | Investigator-led Projects | Professor | Dermot Cox | €368,710 |
| Hepato-Flame: Studying the interaction of diet, obesity, microbial translocation and inflammatory pathways in hepatobiliary cancer development: A European prospective cohort study | University College Dublin | Investigator-led Projects | Dr | David Hughes | €367,057 |
| Prevention in prediabetic patients of infection's morbidity following a high fibre and vegetal protein diet "PreVegDiet" | University College Cork | EU Joint Programming Initiative 'A Healthy Diet for a Healthy Life' | Dr | Silvia Melgar | €349,213 |
| The Ignition study: Sharing stories to improve the experience of transition for young people with cerebral palsy | Royal College of Surgeons in Ireland | Knowledge Translation Awards | Dr | Jennifer Ryan | €20,431 |
| Translating knowledge into care to enhance sensory-cognitive health of people in longterm care in Ireland | Trinity College Dublin | Knowledge Translation Awards | Professor | Iracema Leroi | €39,759 |
| Developing an online platform to promote oral health among the Cystic Fibrosis community | University College Cork | Knowledge Translation Awards | Dr | Martina Hayes | €23,225 |
| Enhancing Testicular Awareness and Self-Examination Among Gay Men: Campaign Co-Design and Delivery Using the World Café Methodology | University College Cork | Knowledge Translation Awards | Dr | Mohamad Saab | €39,003 |
| RE:CURRENT-KTA Recurrent Miscarriage: evaluating CURRENT services-Knowledge Translation Acceleration | University College Cork | Knowledge Translation Awards | Professor | Keelin O'Donoghue | €36,675 |
| National Patient Education and Research Engagement Programme | Trinity College Dublin | Knowledge Translation Awards | Professor | Ursula Fearon | €39,125 |
| Co-creation of a cookery book – pathways to making changes in diet | University College Dublin | Knowledge Translation Awards | Professor | Lorraine Brennan | €59,787 |

| PROJECTS AND PROGRAMMES | | | | | | |
|--|--------------------------------------|------------------------------|-----------------------|----------------------|---------------|--|
| Title | Host institution | Scheme | Lead researcher title | Lead researcher name | Total awarded | |
| Clinical trials: what are they and why are they important | University of Galway | Knowledge Translation Awards | Professor | Declan Devane | €59,984 | |
| Integrated Knowledge Translation for Advanced Therapies: From Bench to Bedside | Trinity College Dublin | Knowledge Translation Awards | Professor | Martina Hennessy | €59,130 | |
| PARKIE: Parkinson's community Awareness of Research; emphasis on Knowledge and Information Exchange | Trinity College Dublin | Knowledge Translation Awards | Professor | Maeve Caldwell | €36,339 | |
| Teaching & Learning Trauma Informed Care for Health Settings | Trinity College Dublin | Knowledge Translation Awards | Dr | Frédérique Vallières | €27,961 | |
| Building Circles of Support for people with intellectual disabilities | Trinity College Dublin | Knowledge Translation Awards | Professor | Mary McCarron | €60,000 | |
| Tip of the iceberg: highlighting the long term health consequences of polycystic ovary syndrome | Royal College of Surgeons in Ireland | Knowledge Translation Awards | Professor | Michael O'Reilly | €56,375 | |
| Psychosis in the Theatre | Royal College of Surgeons in Ireland | Knowledge Translation Awards | Professor | David Cotter | €59,989 | |
| Translating the tailoring process to improve the implementation of diabetes care | University College Cork | Knowledge Translation Awards | Dr | Sheena McHugh | €59,954 | |
| Taking a World Cafe approach to improving understanding of psychosis and establishing a psychosis research PPI network | Royal College of Surgeons in Ireland | Knowledge Translation Awards | Professor | David Cotter | €36,901 | |
| FUTURE-VASC | Trinity College Dublin | Knowledge Translation Awards | Professor | Mark Little | €33,025 | |
| Better Osteoarthritis Care: Delivering education and training for primary care health professionals in Ireland | Royal College of Surgeons in Ireland | Knowledge Translation Awards | Professor | Helen French | €36,510 | |
| Co-design and co-adaptation of a trustworthy online resource for healthcare professionals and people with chronic hip and knee pain in Ireland | University of Limerick | Knowledge Translation Awards | Dr | Clodagh Toomey | €59,513 | |
| HD-knowhow | Trinity College Dublin | Knowledge Translation Awards | Professor | Jennifer Hoblyn | €17,143 | |
| Early Detection and Intervention for Cerebral Palsy (EDI4CP) | University College Cork | Knowledge Translation Awards | Professor | Geraldine Boylan | €59,870 | |
| Art4Knowledge – Art Therapy for Knowledge Exchange between UCC CTG patients with cancer, their families, and clinical trials teams | University College Cork | Knowledge Translation Awards | Professor | Roisin Connolly | €59,972 | |

PROJECTS AND PROGRAMMES

| Title | Host institution | Scheme | Lead researcher title | Lead researcher name | Total awarded |
|---|--|---|-----------------------|----------------------|--------------------|
| Medication without harm: Building a network and knowledge exchange programme | Royal College of Surgeons in Ireland | Knowledge Translation Awards | Dr | Caitriona Cahir | €24,675 |
| Uniting Palliative Care and Research Through a Community of Practice for Evidence-based Care | All Ireland Institute of Hospice and Palliative Care | Knowledge Translation Awards | Ms | Karen Charnley | €60,000 |
| Pandemic Resilience – translating knowledge for improved future pandemic preparedness | University College Dublin | Knowledge Translation Awards | Professor | Alistair Nichol | €59,184 |
| TAME-Translation: Translating the TAME cardiac arrest trial results to public, policy, clinicians and researchers | University College Dublin | Knowledge Translation Awards | Professor | Alistair Nichol | €59,951 |
| Educating the Irish Public on Genomics | Irish Platform for Patient Organisations, Science and Industry | Knowledge Translation Awards | Dr | Derick Mitchell | €29,987 |
| PersonAlisation of ReIApse risk in autoimmune DISEase “PARADISE” | Trinity College Dublin | EU Joint Transnational Call – ERA PerMed | Professor | Mark Little | €369,525 |
| Multi-markers risk assessment of kidney sensitivity to injury to personalize prevention of acute kidney injury “SpareKid” | University College Dublin | EU Joint Transnational Call – ERA PerMed | Professor | Patrick Murray | €364,111 |
| Towards Personalised Clinical Management of Suicide Risk through Data-Driven Clinical Decision Support using Transnational Electronic Registry Data “PERMANENS” | University College Cork | EU Joint Transnational Call – ERA PerMed | Professor | Ella Arensman | €211,813 |
| FAIRVASC – building registry interoperability to inform clinical care (supplemental funding for EJPRD-2019-01) | Trinity College Dublin | Ucrisis 2022 | Professor | Mark Little | €49,541 |
| Developing a new approach to stroke rehabilitation for the upper limb based on TMS neurofeedback (supplemental funding) | Trinity College Dublin | Ucrisis 2022 | Dr | Kathy Ruddy | €68,230 |
| A functional genomics pipeline for genetic discovery in diabetic kidney disease | University College Dublin | US-Ireland Research and Development Partnership Award | Professor | Catherine Godson | €908,860 |
| Total: | | | | | €20,915,594 |

CAPACITY BUILDING AND LEADERSHIP ENHANCEMENT

| Title | Host institution | Scheme | Lead researcher title | Lead researcher name | Total awarded |
|--|--------------------------------------|------------------------------|-----------------------|-----------------------|---------------|
| Development of a Health Impact Assessment (HIA) Implementation Model: Enhancing Intersectoral Approaches in Tackling Health Inequalities | University College Cork | Emerging Investigator Awards | Dr | Monica O'Mullane | €636,506 |
| Polyfunctional-T – stromal cell crosstalk in the joint of patients with inflammatory arthritis | Trinity College Dublin | Emerging Investigator Awards | Dr | Achilleas Floudas | €778,854 |
| Cortical and Spinal Connectivity of Motor Units as a novel biomarker of Amyotrophic Lateral Sclerosis pathology | Trinity College Dublin | Emerging Investigator Awards | Dr | Lara McManus | €717,321 |
| Ongoing examination of the PD-1:PD-L1 pathway throughout the evolution of Rheumatoid Arthritis | Trinity College Dublin | Emerging Investigator Awards | Dr | Mary Canavan | €769,054 |
| A Standardised Approach to Measuring Infant Feeding Outcomes to Prevent Childhood Obesity | University College Cork | Emerging Investigator Awards | Dr | Karen Matvienko-Sikar | €791,130 |
| Co-producing actionable knowledge to strengthen cultural humility in Irish mental health services | Maynooth University | Emerging Investigator Awards | Dr | Rebecca Murphy | €799,400 |
| Development of a gene activated construct targeting proinflammatory signalling to promote zonal regeneration of osteoarthritic cartilage | Royal College of Surgeons in Ireland | Emerging Investigator Awards | Dr | Tom Hodgkinson | €729,090 |
| Disc-on-a-chip for the modelling of patient specific pathogenesis of intervertebral disc degeneration underlying inflammatory pain | University of Galway | Emerging Investigator Awards | Dr | Isma Liza Mohd Isa | €782,409 |
| Interrogating the role of miRNA in predicting responses to novel modulator therapies in children with Cystic Fibrosis | Royal College of Surgeons in Ireland | Emerging Investigator Awards | Dr | Irene Oglesby | €781,767 |
| Investigating the role of thinking style and defensive information processing in cancer screening participation: An opportunity to improve uptake of organised screening | Dublin City University | Emerging Investigator Awards | Dr | Nicholas Clarke | €762,472 |

CAPACITY BUILDING AND LEADERSHIP ENHANCEMENT

| Title | Host institution | Scheme | Lead researcher title | Lead researcher name | Total awarded |
|--|---------------------------|---|-----------------------|------------------------|---------------|
| Identifying gut microbiome-responsive brain biomarkers of cognitive impairments relevant to schizophrenia: A next-generation functional CNS circuit mapping approach | University College Cork | Emerging Investigator Awards | Dr | Linda Katona | €783,843 |
| Student Experiences of Health Psychology in the US (STEP-US): A mixed methods study with US Health Psychology doctoral students and programme leads | University of Galway | Fulbright-HRB Health Impact Awards | Dr | Jennifer McSharry | €14,513 |
| Applying Machine Learning Techniques to Ecological Momentary Assessment Data to Investigate Complex Suicide Processes | University of Galway | Fulbright-HRB Health Impact Awards | Dr | Ruth Melia | €9,098 |
| Exploring enablers & barriers to community-based & community-led LGBTQI+ Healthcare | University College Dublin | Fulbright-HRB Health Impact Awards | Dr | John Gilmore | €17,087 |
| Digital training with motor-cognitive strategies to improve movement in Parkinson's disease | University College Dublin | Marie Skłodowska-Curie Actions DevelOp interdisciplinary approaches to health crisis collaboratively (DOROTHY) COFUND programme | Dr | Judith Bek | €234,766.00* |
| Unmasking health inequalities: A critical ethnographic study of deaf people's experiences of the COVID-19 pandemic in Ireland and the United Kingdom | Trinity College Dublin | Marie Skłodowska-Curie Actions DevelOp interdisciplinary approaches to health crisis collaboratively (DOROTHY) COFUND programme | Dr | Noel Patrick O'Connell | €234,766.00* |
| Novel Catalytic Materials for CO2 Utilization | Trinity College Dublin | Marie Skłodowska-Curie Actions DevelOp interdisciplinary approaches to health crisis collaboratively (DOROTHY) COFUND programme | Dr | Anton Konopatsky | €234,766.00* |

CAPACITY BUILDING AND LEADERSHIP ENHANCEMENT

| Title | Host institution | Scheme | Lead researcher title | Lead researcher name | Total awarded |
|--|---------------------------|---|-----------------------|----------------------|---------------|
| WildHealth: from wildlife+A20:C24 monitoring to preventing and mitigating the spread of zoonotic diseases and drug resistance | University College Dublin | Marie Skłodowska-Curie Actions DevelOp interdisciplinary approaches to health crisis collaboratively (DOROTHY) COFUND programme | Dr | Frédéric Touzalin | €234,766.00* |
| ENGAGE (develoPng A neiGhbourhood model for dEmentia) | Trinity College Dublin | Marie Skłodowska-Curie Actions DevelOp interdisciplinary approaches to health crisis collaboratively (DOROTHY) COFUND programme | Dr | Purity Mwendwa | €234,766.00* |
| Innovative Solutions for Indoor Air Exposure: Agile, Lean, and Resilient (INSIDE-AIR) | University College Cork | Marie Skłodowska-Curie Actions DevelOp interdisciplinary approaches to health crisis collaboratively (DOROTHY) COFUND programme | Dr | Asit Kumar Mishra | €234,766.00* |
| Ultrasensitive simultaneous detection of multiple Alzheimer's disease biomarkers by a miniaturized on-chip silicon ultra-micro-device based on a universal antifouling interface (ADB-on-a-chip) | University College Cork | Marie Skłodowska-Curie Actions DevelOp interdisciplinary approaches to health crisis collaboratively (DOROTHY) COFUND programme | Dr | Vuslat Juska | €234,766.00* |
| Design and Synthesis of M(O,S)y Heterostructures and Nanocomposites for Photocatalytic Degradation of Contaminants of Emerging Concern and Industrial Waste Chemicals | University of Limerick | Marie Skłodowska-Curie Actions DevelOp interdisciplinary approaches to health crisis collaboratively (DOROTHY) COFUND programme | Dr | Misganaw Zeleke | €234,766.00* |

CAPACITY BUILDING AND LEADERSHIP ENHANCEMENT

| Title | Host institution | Scheme | Lead researcher title | Lead researcher name | Total awarded |
|--|--------------------------------------|---|-----------------------|------------------------|---------------|
| Irish Clinical Academic Training: An All-Ireland Integrated Training Programme for Clinical Academics | University of Galway | Structured and cohort-based PhD Programme | Professor | Michael Denny | €10,993,503 |
| Structured Population health, Policy and Health-services Research Education (SPHeRE) Phase III | Royal College of Surgeons in Ireland | Structured and cohort-based PhD Programme | Professor | Mary Clarke | €5,999,997 |
| Pre-clinical testing of novel JAM-A inhibitor derivatives for applications in breast cancer | Royal College of Surgeons in Ireland | Summer Student Scholarships | Ms | Sarah Chiodo | €2,400 |
| Qualitative analysis of patient involvement in psychological intervention design | University College Cork | Summer Student Scholarships | Ms | Audrey Murphy | €2,400 |
| A longitudinal evaluation of the impact of the COVID-19 pandemic on patients with pre-existing mood disorders | University of Galway | Summer Student Scholarships | Ms | Emma O’Gorman | €2,400 |
| To investigate the phenotypic and functional differences in RA and HC monocyte-derived M1 macrophages | Trinity College Dublin | Summer Student Scholarships | Mr | Yasir Alshareefy | €2,400 |
| Mental Health Service Use by Older Adults with Intellectual Disability in Differing Residential Settings: findings from the Intellectual Disability Supplement to the Irish Longitudinal Study on Ageing | Trinity College Dublin | Summer Student Scholarships | Mrs | Samira Bouktib Gogarty | €2,400 |
| Platelet mediated immune cell education in ovarian cancer | Trinity College Dublin | Summer Student Scholarships | Mr | Andres Clarke | €2,400 |
| Investigating the relationship between Alzheimer’s Disease risk factors, protective lifestyle factors and cognition in midlife | Trinity College Dublin | Summer Student Scholarships | Ms | Sandra El-Sherbiny | €2,400 |
| Creating a Platform for International Data-sharing for Rett Syndrome (DATARETT) | Trinity College Dublin | Summer Student Scholarships | Ms | Ciara Ni Chaithmhaoil | €2,400 |
| Using photovoice to examine the experiences of individuals living with diabetes during Covid-19 | University College Cork | Summer Student Scholarships | Ms | Aoibheann Kavanagh | €2,400 |
| Meaning in Life in Older Adults with Intellectual Disability: findings from the Intellectual Disability Supplement to the Irish Longitudinal Study on Ageing (IDS-TILDA) | Trinity College Dublin | Summer Student Scholarships | Ms | Esther Oyeniya | €2,400 |

CAPACITY BUILDING AND LEADERSHIP ENHANCEMENT

| Title | Host institution | Scheme | Lead researcher title | Lead researcher name | Total awarded |
|--|--------------------------------------|-----------------------------|-----------------------|----------------------|---------------|
| Are lipids the dysregulating factor for MAIT cells in obesity | Maynooth University | Summer Student Scholarships | Mr | Torin Wright | €2,400 |
| Factors modifying the cardiovascular risk of patients attending a specialist lipid clinic | Trinity College Dublin | Summer Student Scholarships | Mr | Richard Malone | €2,400 |
| Applications of a composite outcome score to evaluate quality and outcomes of emergency abdominal surgery in Irish public hospitals | Royal College of Surgeons in Ireland | Summer Student Scholarships | Mr | Joel Rajesh | €2,400 |
| Investigation of the synergistic and antagonistic effects of azole and echinocandin combination therapy on the pathogenic mould <i>Aspergillus fumigatus</i> | Trinity College Dublin | Summer Student Scholarships | Ms | Natanya Ng | €1,800 |
| Examining the role of FGFR2 in the pathogenesis of Ulcerative Colitis | Royal College of Surgeons in Ireland | Summer Student Scholarships | Ms | Helen Huang | €2,400 |
| Development of a Primary Care Cancer research database (PC-Can Database): a feasibility study | Royal College of Surgeons in Ireland | Summer Student Scholarships | Ms | Claire O'Sullivan | €1,500 |
| Predicting transition to Psychotic Disorder from the Clinical High Risk for Psychosis | Royal College of Surgeons in Ireland | Summer Student Scholarships | Ms | Olivia Mosley | €2,400 |
| Factors impacting women's trust in digital healthcare: Implications for Irish Health Services | University College Cork | Summer Student Scholarships | Ms | Alison Warren-Perry | €2,400 |
| The detrimental effects of neonatal hypoxia on the neurological welfare of new-born children due to phagocytic activity of microglia triggered by hypoxia seizures | Trinity College Dublin | Summer Student Scholarships | Ms | Clare O'Grady | €2,400 |
| Social Exclusion and HIV Outcomes (SEHO) | Trinity College Dublin | Summer Student Scholarships | Ms | Kesidha Raajakesary | €2,400 |
| Using stem cells to investigate the effects of interleukin-1a on astrocyte morphology, function, and gene expression in Parkinson's disease | Trinity College Dublin | Summer Student Scholarships | Ms | Amy Doyle | €2,400 |

CAPACITY BUILDING AND LEADERSHIP ENHANCEMENT

| Title | Host institution | Scheme | Lead researcher title | Lead researcher name | Total awarded |
|--|---------------------------|-----------------------------|-----------------------|----------------------|---------------|
| A systematic review of the role of psychological and behavioural interventions in improving health and air quality through reductions in household solid fuel burning | University College Cork | Summer Student Scholarships | Mr | Thomas Lyons | €2,400 |
| A mixed methods exploration of the use of patient experience to inform improvement in a National Rehabilitation Hospital | University College Dublin | Summer Student Scholarships | Ms | Aisling O'Keeffe | €2,400 |
| Characterisation of aerotolerant Campylobacters isolated from humans | University College Dublin | Summer Student Scholarships | Ms | Simrandeep Manj | €1,200 |
| Direct access to diagnostic imaging in general practice: A qualitative study | University College Dublin | Summer Student Scholarships | Ms | Jiaran Gao | €2,400 |
| Opinions of participants on the Music and Movement for Health study: The Feasibility of an Arts-Based Programme for the Health and Wellbeing of Older Adults | University of Limerick | Summer Student Scholarships | Ms | Siobhán O'Reilly | €2,400 |
| How do Irish primary care physiotherapists manage patients with degenerative meniscal tears? A mixed methods study | University of Limerick | Summer Student Scholarships | Ms | Angela Joseph | €2,400 |
| Quantifying variations in plasma ketone concentrations with different exercise modalities and intensities | University of Galway | Summer Student Scholarships | Ms | Éabha Walsh | €2,400 |
| Formulation of a hyperosmotic therapeutic for diabetic macular oedema | University of Galway | Summer Student Scholarships | Ms | Ashling Walsh | €2,400 |
| Characterisation of a wound healing cell therapy product based on human umbilical cord mesenchymal stromal cells cultured on a scaffold under macromolecular crowding conditions | University of Galway | Summer Student Scholarships | Ms | Madeline Aguh | €2,400 |
| A Feasibility Study for the Classification of Diabetic Retinopathy Images in Patients with Diabetes Mellitus using a Machine Learning Approach | University of Galway | Summer Student Scholarships | Mr | Cathal Breathnach | €2,400 |
| T-Cell Exhaustion with COVID-19 | University of Galway | Summer Student Scholarships | Ms | Petra Bryda | €2,400 |

CAPACITY BUILDING AND LEADERSHIP ENHANCEMENT

| Title | Host institution | Scheme | Lead researcher title | Lead researcher name | Total awarded |
|---|-------------------------|-----------------------------|-----------------------|------------------------|---------------|
| Identification of sub-phenotypes of intervertebral disc degeneration in human disease | University of Galway | Summer Student Scholarships | Ms | Andrea Dimitrov | €2,400 |
| Alkaline Phosphatase expression predicts the bone forming capacity of human bone marrow stem cells | University of Galway | Summer Student Scholarships | Ms | Hasna Mohamed Haniffa | €2,400 |
| Analysis of immunomodulatory stromal cell gene and protein expression in the colorectal cancer tumour microenvironment | University of Galway | Summer Student Scholarships | Ms | Hannah Hession | €2,400 |
| Relationship between Endothelin-1 and Breast Cancer-Bone Metastasis | University of Galway | Summer Student Scholarships | Ms | Elma Mammen | €2,400 |
| To develop an in vitro assay using a mouse macrophage cell line to investigate and predict the in vivo immunomodulatory potential of Extracellular Vesicles | University of Galway | Summer Student Scholarships | Ms | Sarah O'Sullivan | €2,400 |
| A feasibility study of using a robot to teach nutrition for Type 2 Diabetes | University of Galway | Summer Student Scholarships | Ms | Jane Birdie Shi Qi Ong | €2,400 |
| Identification of Delirium in ICU | University of Galway | Summer Student Scholarships | Mr | Patrick Sweeney | €2,400 |
| Prevalence and Aetiology of Hyperkalemia in Chronic Kidney Disease Outpatients | University College Cork | Summer Student Scholarships | Mr | Mark Vesey | €2,400 |
| Appropriateness of prescribing of secondary prevention of stroke medications in older Irish adults | University College Cork | Summer Student Scholarships | Mr | Tarun Das | €2,400 |
| Investigating the impact of dual strain probiotic supplementation on the incidence of Necrotising enterocolitis in very low birth weight infants | University College Cork | Summer Student Scholarships | Mr | Benjamin Green | €2,400 |
| Coffee consumption, the Gut Microbiome, and the Microbiota-Gut-Brain Axis | University College Cork | Summer Student Scholarships | Ms | Maha Irfan | €2,400 |
| Assessment of nutrient intakes in pregnant women adhering to popular diets: are there risks of nutrient deficiencies? | Dublin City University | Summer Student Scholarships | Mr | Jack Boland | €2,400 |

CAPACITY BUILDING AND LEADERSHIP ENHANCEMENT

| Title | Host institution | Scheme | Lead researcher title | Lead researcher name | Total awarded |
|---|-------------------------|-----------------------------|-----------------------|------------------------|---------------|
| Exploring the use of calcium channel blockers to potentiate the effect of second-line drugs in Mycobacterium bovis BCG-infected human macrophages with minimal toxicity | Trinity College Dublin | Summer Student Scholarships | Ms | Natalia Paprocka | €2,400 |
| Exploring inequities in health screening among people with disabilities in Ireland | Dublin City University | Summer Student Scholarships | Mrs | Kristie Akpevwe Egere | €2,400 |
| Investigating novel biofilm regulation mechanisms in a cerebrospinal fluid isolate of Staphylococcus epidermidis responsible for a device-related infection | University of Galway | Summer Student Scholarships | Ms | Dominica Mikasauskaite | €2,400 |
| Investigating the genomic basis of autism using whole genome sequencing in a family based design: evaluating updated gene scoring metrics | Maynooth University | Summer Student Scholarships | Ms | Aoibhin Woods | €2,400 |
| Gastrointestinal Motility in the Very Preterm Infant and its Implications for Clinical Care | University College Cork | Summer Student Scholarships | Ms | Mariana Colussi-Pelaez | €2,400 |
| Body modifications following cancer treatment. A systematic review | Dublin City University | Summer Student Scholarships | Mr | Adam Daly | €2,400 |

* Total HRB share and co-funder share averaged across eight awards

Total: €25,483,344

INFRASTRUCTURE AND NETWORK AWARDS

| Title | Host institution | Scheme | Lead researcher title | Lead researcher name | Total awarded |
|--|--------------------------------------|---|-----------------------|----------------------|---------------|
| Genomics Data Infrastructure Project Ireland | Royal College of Surgeons in Ireland | Irish arm of the Digital Europe Genomic Data Infrastructure (GDI) Project | Professor | Gianpiero Cavalleri | €632,260 |
| Irish Research Nurses and Midwives Network | Royal College of Surgeons in Ireland | Irish Research Nurses and Midwives Network | Ms | Deirdre Hyland | €300,000 |
| Rare Disease Clinical Trial Network | University College Dublin | Clinical Trial Networks | Professor | Rachel Crowley | €999,910 |

Total: €1,932,170

INTERVENTIONS

| Title | Host institution | Scheme | Lead researcher title | Lead researcher name | Total awarded |
|------------------------------------|---------------------------|---|-----------------------|----------------------|---------------|
| Monkeypox study: MONKEYVAX Ireland | University College Dublin | Definitive Interventions and Feasibility Awards | Professor | Eoin Feeney | €2,138,139 |

Total: €2,138,139

Appendix C

| HRB co-funded awards | | | | |
|---|--|-----------------------|------------|-------------|
| Scheme | Co-funding partner | Co-funding allocation | HRB share | Total award |
| Applied Partnership Awards | LauraLynn – Ireland’s Children’s Hospice | €40,000 | €199,998 | €239,998 |
| Applied Partnership Awards | Irish Heart Foundation | €40,000 | €199,998 | €239,998 |
| Applied Partnership Awards | Diabetes in General Practice (DiGP) | €22,540 | €112,403 | €134,943 |
| Applied Partnership Awards | Irish College of General Practitioners (ICGP) | €40,000 | €199,980 | €239,980 |
| Applied Partnership Awards | Barretstown | €40,000 | €199,986 | €239,986 |
| Applied Partnership Awards | Epilepsy Ireland | €30,760 | €143,849 | €174,609 |
| Applied Partnership Awards | Central Remedial Clinic | €40,000 | €200,000 | €240,000 |
| Definitive Interventions and Feasibility Awards – MONKEYVAX Ireland | European Medicines Agency | €952,491 | €1,185,648 | €2,138,139 |
| European Joint Programme on Rare Diseases | European Joint Programme on Rare Diseases – European Partners | €1,278,879 | €323,504 | €1,602,383 |
| Genomics Data Infrastructure Project Ireland | Digital Europe - The Genomic Data Infrastructure (GDI) Project | €223,888 | €399,372 | €632,260 |
| HRCI-HRB Joint Funding Scheme | Cystinosis Ireland | €69,366 | €128,822 | €198,188 |
| HRCI-HRB Joint Funding Scheme | Family Carers Ireland | €34,746 | €64,526 | €99,272 |
| HRCI-HRB Joint Funding Scheme | Central Remedial Clinic | €34,945 | €64,897 | €99,842 |
| HRCI-HRB Joint Funding Scheme | Central Remedial Clinic | €34,992 | €64,985 | €99,977 |
| HRCI-HRB Joint Funding Scheme | Arthritis Ireland | €69,592 | €129,240 | €198,832 |
| HRCI-HRB Joint Funding Scheme | Cystinosis Ireland | €53,340 | €99,060 | €152,400 |
| HRCI-HRB Joint Funding Scheme | Fighting Blindness | €105,000 | €195,000 | €300,000 |
| HRCI-HRB Joint Funding Scheme | Breakthrough Cancer Research | €104,922 | €194,854 | €299,776 |
| HRCI-HRB Joint Funding Scheme | Cystic Fibrosis Ireland | €51,835 | €96,263 | €148,098 |
| HRCI-HRB Joint Funding Scheme | MSD Action Foundation | €5,000 | €195,000 | €200,000 |
| HRCI-HRB Joint Funding Scheme | MSD Action Foundation | €3,750 | €146,250 | €150,000 |

| HRB co-funded awards | | | | |
|--|--|-----------------------|-------------------|--------------------|
| Scheme | Co-funding partner | Co-funding allocation | HRB share | Total award |
| HRCI-HRB Joint Funding Scheme | Irish Cancer Society | €104,974 | €194,951 | €299,925 |
| HRCI-HRB Joint Funding Scheme | Irish Kidney Association | €70,000 | €130,000 | €200,000 |
| HRCI-HRB Joint Funding Scheme | Epilepsy Ireland | €31,951 | €59,335 | €91,286 |
| HRCI-HRB Joint Funding Scheme | DEBRA Ireland | €80,731 | €104,770 | €185,501 |
| HRCI-HRB Joint Funding Scheme | Conor Foley Neuroblastoma Cancer Research Foundation | €47,872 | €181,402 | €229,274 |
| HRCI-HRB Joint Funding Scheme | Breakthrough Cancer Research | €117,108 | €145,308 | €262,415 |
| HRCI-HRB Joint Funding Scheme | Cystic Fibrosis Ireland | €100,000 | €130,001 | €230,001 |
| HRCI-HRB Joint Funding Scheme | Epilepsy Ireland | €52,474 | €97,450 | €149,924 |
| EU Joint Programming Initiative 'A Healthy Diet for a Healthy Life' | EU Joint Programming Initiative 'A Healthy Diet for a Healthy Life' – European Partners | €583,929 | €349,213 | €933,142 |
| EU Joint Transnational Call – ERA PerMed | ERA PerMed – European Partners | €1,693,951 | €369,525 | €2,063,476 |
| EU Joint Transnational Call – ERA PerMed | ERA PerMed – European Partners | €1,160,993 | €364,111 | €1,525,104 |
| EU Joint Transnational Call – ERA PerMed | ERA PerMed – European Partners | €1,013,600 | €211,813 | €1,225,413 |
| US-Ireland Research and Development Partnership Award | Science Foundation Ireland | €454,430 | €454,430 | €908,860 |
| *Marie Skłodowska-Curie Actions DevelOp interdisciplinary approaches to health crisis collaboratively (DOROTHY) COFUND programme | Irish Research Council (IRC), Environmental Protection Agency (EPA), and European Commission | €1,479,965 | €398,163 | €1,878,128 |
| * 8 fellowships currently awarded out of 25 planned | | | | |
| Total: | | €10,268,023 | €7,734,107 | €18,011,130 |


Corporate Governance and Financial Statements

The Corporate Governance and Financial Statements information will be published in a Part 2 to this document upon receipt of the audited financial statements from the Office of the Comptroller and Auditor General.

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