UK-Ireland
Our Entrepreneurs
2016-2017
A very warm welcome / Céad míle fáilte to EIT Health UK-Ireland,

Working in partnership with fellow EIT Health partners from all over Europe, EIT Health UK-Ireland promotes entrepreneurship and innovation cooperation amongst Europe’s leading universities, public and private research centers, healthcare businesses, public bodies and even the public itself. Together, we aim to improve the quality of life for all Europeans – ultimately contributing to the affordability and sustainability of healthcare across Europe. You can find out more about the EIT Health partners who call the UK-Ireland Co-Location Centre (CLC) their home by consulting the EIT Health UK-Ireland “Our Partners” Brochure. A focus of our work is to scout for innovative healthcare ideas within our local ecosystem and providing the people behind these ideas with the necessary support, skills and services to succeed in the healthcare sector as they travel on ‘their’ unique journey to entrepreneurship.

The pages in this booklet will help you to find out more about “Our Entrepreneurs” and how we have supported them throughout 2016 and 2017. I look forward to hearing from you how we can work together to make a healthy life a reality for all Europeans.

Best wishes / Go dté tú slán,

Dr Katharina Ladewig
Managing Director EIT Health UK-Ireland
The EIT Health Accelerator

The EIT Health Accelerator creates an ecosystem where innovation can thrive. Gathering the best and brightest entrepreneurs in health, providing them with the support, skills and services that they need to get their ideas of the ground and into the market. It is open for all business ideas coming from EIT Health CAMPUS activities like summer schools or Innovation Fellowships, EIT Health INNOVATION projects and other EIT Health ACCELERATOR pre-seed scouting activities occurring at the CLC level. In the discovery phase, training and support activities like the EIT Health Launchlab or other Boot Camp programmes help to create a business plan out of an initial business idea in two-month ‘pressure cooker’ programmes, whilst Local Training activities augment existing accelerator programmes at the CLCs, with a focus on the key skills required when operating in the healthcare sector. In the validation phase, a strong emphasis is placed on helping start-ups and entrepreneurs to use suitable Living Labs and Test Beds within the community to further test their ideas, helping them to gain an understanding of the different European regulatory and reimbursement schemes through providing access to a wide Network of Market Experts with specific local knowledge. In the scale phase, a major focus is on tools and networks that can provide non-equity financing for projects and small SMEs such as through Headstart/Proof-of-concept Grants, as well as facilitating access to potential investors such as angel networks, corporate financers and crowd funders. ‘Go Global’ programmes support European start-ups and scale-ups in the domain of MedTech and Digital Health in their expansion across Europe, the United States & other International markets.

HQ Contact:
Dr. Kurt Höller
Director of Business Creation,
EIT Health e.V.
email: kurt.hoeller@eithealth.eu

CLC Contacts:
Dr. Rosemary Gallagher
Business Creation Manager
rosemary.gallagher@eithealth.eu

Dr. Paul Anglim
Member of the Strategic Accelerator Board
Paul.anglim@eithealth.eu

EIT Health UK-Ireland office
clc.uk-ireland@eithealth.eu
A Non-Wearable Wellness Tracker for Seniors

Ally helps families look after elderly loved ones by analysing ambient sensor data to track changes in physical and mental well being. In addition, voice messages, reminders and task scheduling helps carers manage and improve the care they provide.

EIT Health program(s):
Headstart/Proof-of-Concept Grants (Winner, UK-Ireland), 2016
Business Plan Aggregator (3rd Place, Europe-wide, MedTech), 2016

Industry Sector:
MedTech

Founded in / # employees (2017):
2015 // 1-10

Contact for Specific Enquiries:
Thomas Tredinnick

Email: tom@ally.is
The new standard in the treatment of atrial fibrillation

AuriGen Medical is developing the gold standard implant therapy for atrial fibrillation (AF). The AuriGen device is the first and only percutaneous implant which reduces the greatest risks associated with AF, namely arrhythmia, heart failure and stroke.

Contact for Specific Enquiries:
John Thompson

Email:
john.thompson@aurigenmedical.com

aurigenmedical.com
TeamScreen

A&E cardiac arrests all follow a pre-defined method, and although well-trained individually, the ad hoc arrest team members are often strangers and rely on verbal and hand-written communication. TeamScreen is an A&E cardiac arrest dashboard, which brings the team management of a cardiac arrest into the digital age by allowing for the precise and speedy sharing of information among the diverse team of clinicians addressing cardiac arrest.

Contact for Specific Enquiries:
Dave Burrows

Email:
dave_burrows@damibu.com

damibu.com

EIT Health program(s):
Headstart/Proof-of-Concept Grants (Winner, UK-Ireland), 2016

Industry Sector:
MedTech

Founded in / # employees (2017):
2015 // 1-10
A ‘Hearable’ Technology for Health & Safety

EarTex develops intelligent ear defenders for heavy industry using advanced technology to improve workplace efficiency, communication and health & safety. The EarTex wireless ‘in-the-ear’ devices overcome the issues presented by hearing loss and hearing aids while also providing real time notifications to the wearer. The custom fit, modular design earbuds are far cheaper than traditional hearing aids as the user maintains control via a smartphone in real-time rather than relying on a third party.

Contact for Specific Enquiries:
David Greenberg

Email:
david@eartex.com

eartex.com
Evolyst

The lungs of people with Cystic Fibrosis (CF) become infected with multi-resistant bacteria which can spread between patients. People with CF are therefore prevented from mixing to prevent cross-infection. This means, patients need to travel to a CF centre to see physiotherapists individually, which is inconvenient and expensive for the NHS.

There is an urgent need to develop an affordable method of remotely assessing chest wall motion in this group of patients. This project will enable Evolyst to continue development of their evidence-based chest wall motion analysis (CWMA) system, which has the potential to transform the care of CF patients worldwide.

Contact for Specific Enquiries:
Christopher Golby

Email:
chrisgolby@evolyst.com

EIT Health program(s):
European Health Catapult (Finalist), 2017

Industry Sector:
Digital Health

Founded in / # employees (2017):
2016 // 1-10
Helping People with Parkinson’s Disease Walk

Gait freeze is a common feature of Parkinson’s disease that markedly reduces quality of life by impairing the ability to walk spontaneously and continuously. The company developed a wearable “GaitThaw” device that automatically delivers localised cues, as required, to prevent gait freezing.

Contact for Specific Enquiries:
James Cantley
Email: james.cantley@dpag.ox.ac.uk
dpag.ox.ac.uk/research/cantley-group
SightPlus - Innovation for the Visually Impaired

SightPlus is a wearable headset that can be used to magnify close-up or far-away objects, change the contrast or apply custom filters to anything you are looking at. It is a hands-free, portable, easy-to-use device suitable for a large variety of tasks.

SightPlus is designed for use during stationary activities such as reading, watching TV, recognising people’s faces and a large variety of hobbies (from painting to playing music, crafts, theatre or sports events). SightPlus is not designed to be a mobility aid and can not be used to walk around or to drive.

People who use SightPlus include those that have a large number of sight conditions which may affect central vision, such as macular degeneration and Stargardt’s. Generally speaking, those people who use tools such as magnifiers or the zoom function on tablets also find use in SightPlus.

givevision.net
Immersive Rehab creates interactive physical and neurorehabilitation games and engaging environments in Virtual Reality that improve patient recovery. The goal is to increase the effectiveness of physical & neuro-rehabilitation and make it fun and engaging. Immersive Rehab is all about improving the outcome for patients going through physical and neurorehabilitation and giving them more of their independence back.

Physical rehabilitation is often not an accessible, engaging and motivating activity to embark upon and engagement with and long term compliance can be a limiting factor in relation to treatment success. They also have limited access to follow-up rehab once up and walking while still having a very limited upper limb mobility. We believe that immersive Virtual Reality can impact this significantly.

Email: isabel@immersiverehab.com

immersiverehab.com
Kaido is a connected health and wellbeing company that is part of the Serendip Smart City Incubator at Innovation Birmingham’s iCentrum and is supported by the West Midlands Academic Health Science Network. Kaido’s mission is to empower a consumer-driven approach to health and wellbeing through access to personalised high-quality education information using a connected healthcare platform.

A Connected Healthcare Platform

Kaido.co.uk

Contact for Specific Enquiries:
Richard Westman

Email:
rich.westman@kaido.com

EIT Health program(s):
Headstart/Proof-of-Concept Grants (Winner, UK-Ireland), 2016

Industry Sector:
Digital Health

Founded in / # employees (2017):
2015 // 10-20
An exciting new orthopaedic implant

Loci Orthopaedics has developed the “InDx” implant, an orthopaedic implant for the surgical treatment of thumb base joint arthritis.

Working with three of the world’s foremost surgical experts, the InDx implant is the first implant to fully accommodate the natural motions of the joint, providing an exciting new treatment alternative and optimal clinical outcomes.

EIT Health program(s):
Headstart/Proof-of-Concept Grants (Winner, UK-Ireland), 2017

Industry Sector:
MedTech

Founded in / # employees (2017):
2016 // 1-10
Motorised Rehabilitation Walker

A clinical robotic device, assisting stroke survivors by providing therapies in their early stages of recovery.

A user-centred design for clinical deployment at scale, it helps patients re-learn standing-up and walking so they can leave hospital earlier and achieve better, more natural, mobility outcomes.

Contact for Specific Enquiries:
Jonathan Butters

Email:
jonathan.butters@morow.co.uk

morow.co.uk

EIT Health program(s):
Headstart/Proof-of-Concept Grants (Winner, UK-Ireland), 2017

Industry Sector:
Biotech

Founded in / # employees (2017):
2016 // 1-10
Early Lung Cancer Diagnosis Using AI and Big Data

Optellum’s vision is to enable earlier and more confident cancer diagnosis. We unlock new insights in huge image databases using AI, thus pooling the collective experience of thousands of doctors and putting it at the fingertips of any clinician.

EIT Health program(s):
- Headstart/Proof-of-Concept Grants (Winner, UK-Ireland), 2016
- Business Plan Aggregator Finalist (DigiTech), 2016

Industry Sector:
DigiHealth

Founded in / # employees (2017):
2015 // 10 - 20

Contact for Specific Enquiries:
Vaclav Potesil

Email:
vaclav.potesil@optellum.com

optellum.com
Ostoform

60% of all ileostomy patients suffer from peristomal skin complications that can drastically affect their quality of life. Ostoform has developed a medical device that manages and effectively reduces these skin complications, resulting in improved skin health and increased user confidence.

Contact for Specific Enquiries:
Kevin Kelleher

Email:
kevin.kelleher@ostoform.com

EIT Health program(s):
Headstart/Proof-of-Concept Grants (Winner, UK-Ireland), 2017

Industry Sector:
Biotech

Founded in / # employees (2017):
2016 // 1-10
Oxiflow

Oxford Endovascular is in its final stage of development of a unique flow-diverter (OXIFLOW) for the minimally invasive treatment of intracranial aneurysms. Oxiflow is a novel, next generation ‘flow-diverter’ that diverts blood flow away from intracranial aneurysms at risk of rupture. The device is a metallic mesh tube, laser cut from Nitinol (a Nickel Titanium Alloy), and can be placed more accurately and safely than existing products.

Conforming to various blood vessel shapes, it reduces the risk of complications and enables the treatment of more patients. A human clinical trial is expected to commence in 2018 followed by CE marking approval and early commercialisation by 2021.
Precise Stenting

We make cardiovascular surgeries more accurate and safe by helping clinicians accurately plan and rehearse stent placements inside blood vessels.

Using predictive computations and AI, we accurately predict behaviour of devices inside each patient’s anatomy.

Contact for Specific Enquiries:
Katerina Spranger and Liya Asner

Email:
katerina@oxfordheartbeat.com,
liya@oxfordheartbeat.com

oxfordheartbeat.com

EIT Health program(s):
Headstart/Proof-of-Concept Grants (Winner, UK-Ireland), 2017

Industry Sector:
MedTech

Founded in / # employees (2017):
2016 // 1-10
A Digital Service for the Self-Management of Persistent Pain

PainSense is the combination of two pain management resources, Pain Toolkit (developed by Dr. Frances Cole and Pete Moore) and Pain Management Plan (developed by Dr. Cole and Prof. Bob Lewin). In printed form these resources already enjoy an international reputation as highly effective tools for building the self management skills of people with persistent pain.

Now, as part of the development of PainSense, they have been completely re-worked and adapted for today’s digital world. They are offered as digital apps, which patients may download and use free, to support them on their self management journey.

EIT Health program(s):
Headstart/Proof-of-Concept Grants (Winner, UK-Ireland), 2016

Industry Sector:
Digital Health

Founded in / # employees (2017):
2015 // 1-10

Contact for Specific Enquiries:
Keli Shipley
Email:
keli.shipley@adi-uk.com

pain-sense.co.uk
A New Therapy for Benign Prostatic Hyperplasia

ProVerum Medical is developing an innovative medical device to treat Benign Prostatic Hyperplasia (BPH). ProVerum is a unique urethral expander that is effective, has shorter procedural times and less side effects. It is better for the patient, surgeon and healthcare system.

Contact for Specific Enquiries:
Conor Harkin

Email: conor@proverummedical.com

f6s.com/proverummedical

EIT Health program(s):
- Headstart/Proof-of-Concept Grants (Winner, UK-Ireland), 2016
- LaunchLab, 2016
- European Health Catapult, (Finalist), as of October 2017

Industry Sector:
- MedTech

Founded in / # employees (2017):
- 2014 // 1-10
SELIO Medical

Lung biopsy is the definitive method of diagnosis of lung cancer but 33% of patients suffer from a collapsed lung (a pneumothorax) leading to unnecessary patient morbidity and clinical intervention.

SELIO adopts a revolutionary approach to prevent the pneumothorax occurring before the biopsy even takes place.

Contact for Specific Enquiries:
Colm McGarvey

Email:
mcgarvco@tcd.ie

EIT Health program(s):
Headstart/Proof-of-Concept Grants (Winner, UK-Ireland), 2017

Industry Sector:
Biotech

Founded in / # employees (2017):
2016 // 1-10
SpyBiotech

SpyBiotech are pioneering a powerful new approach to generate vaccines. Not only do vaccines bring health benefit, they do so in a highly cost-effective manner – remaining effective for years, if not a lifetime, through the power of the immune system.

Vaccines have led to eradication of diseases (such as smallpox) and brought many others under control. However, the world desperately needs new or improved vaccines to target major global killers, newly emerging and outbreak pathogens, as well as cancers.

Conventional approaches to generate vaccines are slow and often ineffective. SpyBiotech’s proprietary protein superglue technology, SpyTag/SpyCatcher, makes it possible to produce vaccines more quickly, cheaply and effectively.
Supporting Your Next Step

Xabian uses artificial intelligence to help doctors create prosthetic sockets for lower limb amputees. The process is 40 times faster than hand-making the prostheses and provides a more comfortable fit.

Contact for Specific Enquiries:
Ben Hayward

Email:
xabiantechnologies@gmail.com

xabian.eu
Automating the Biologicals Research Laboratory

Producers of biologicals often struggle to systematically discover, trial and commercialise new products. R&D and commercialisation of biologicals is expensive due to labour intensive processes and the lack of software-driven automated decision making tools.

Zeno helps biologists and biological producers to increase their R&D and quality control productivity. Zeno’s technology is derived from the combination of GPU computing, computer vision, and deep learning for the automatic identification, cataloguing and analysis of microbes from microscopic images.

Contact for Specific Enquiries:
Ryan Gralia

Email:
regralia@gmail.com

EIT Health program(s):
LaunchLab, 2016

Industry Sector:
Biotech

Founded in / # employees (2017):
2016 // 1-10
DPhil/PhD Transition Fellowships

EIT Health is supported by the EIT, a body of the European Union
Applicants are typically in their final year of submission and close to the award of their doctoral thesis. The most innovative propositions (pitches) presented are selected in September and the respective DPhil/PhD candidates’ host departments are provided with a pre-seed (spark) award to fund accelerated development of discovery research in the applicants first post-doctoral year. Awards are made at three (3) levels: Gold (EUR 30,000), Silver (EUR 15,000), Bronze (EUR 5,000). In addition to the monetary award, successful candidates are supported to obtain transferable skills as well as being supported by the technology and intellectual property offices of the universities involved (i.e. Oxford University Innovations (OUI) at Oxford University and Imperial Innovations at Imperial College) for the duration of their fellowship.

DPhil/PhD Transition Fellowships

In 2016, EIT Health partners Imperial College London and Oxford University piloted an exciting new competitive funding scheme focused on addressing barriers to innovation in the context of academic and research institutions, which include the lack of transferable entrepreneurship training, lack of real world commercial experience for doctoral candidates and, importantly, funding to enable transition of ideas and innovative discoveries into commercially linked programs and ultimately new products and services. The aim of the EIT Health DPhil/PhD Transition Fellowship program is to address this funding gap between completion of the doctoral thesis and obtaining further seed funding. Now in its second year, the programme will be extended to even more universities in the coming years.

HQ Contact:
Dr. Ursula Mühle
Director of Education, EIT Health e.V.
email: ursula.muehle@eithealth.eu

CLC Contacts:
Graham Armitage
Education Lead, EIT Health UK-Ireland
email: graham.armitage@eithealth.eu

Prof. Bass Hassan
Lead DPhil/PhD Transition Fellowships
email: bass.hassan@path.ox.ac.uk

EIT Health UK-Ireland office
Email: clc.uk-ireland@eithealth.eu
Research on the brain is starting to unravel brain-region specific neuronal degeneration that is accompanied with a loss of brain oscillations and memory. During her DPhil studies, Abilasha has gained an insight into the functioning of the brains’ pacemaker neurons. Based on her observation, she will propose a non-invasive frequency dependent cognitive-motor task that targets people interested in promoting healthy ageing. The EIT Health fellowship will be used to optimise the crucial variables and secure further funding.

Elucidating the mechanism of action of utrophin modulators using SILAC

In partnership with Summit Therapeutics plc, they are developing 3rd generation oral small molecule modulators of utrophin for the treatment of Duchenne muscular dystrophy (DMD), a progressive lethal genetic muscle-wasting disease. EIT Health Doctoral Transition Fellowship allows them to apply stable isotope labelling by amino acids in cell culture (SILAC) for the mechanism of action studies.
Andrew Innes established an in vitro inducible model, which mimics cellular ageing and uses this system to screen for regulators of senescence. While senescence has a long established role in preventing cancer development, there is an increasing evidence that it is implicated in ageing and many age-associated diseases. With this in mind, Andrew plans to use his in vitro model of ageing to identify novel compounds that target senescent cells, with the principle aim of developing therapies capable of preventing or treating age-associated diseases.

Antonios Chronopoulos is developing a novel, portable cancer diagnostic device that detects early stages of pancreatic cancer from a small blood sample. The palm-sized device leverages cutting edge micro fluidic technology to enable automated label-free purification and ultrasensitive on-chip detection of exosomes. Exosomes are tiny nanometre-sized vesicles released by tumours in the bloodstream, which have recently emerged as powerful circulating cancer biomarkers.
Nutritional Ketosis Using A Novel Ketone Ester Combined with Medium-Chain Triglycerides

Brianna Stubbs is seeking to develop a new drink formulation that mixes $\Delta G$ with medium chain triglycerides (MCT) which could keep blood ketone levels higher for longer. Ketone bodies are a natural source of energy that can be produced by the body to keep us alive during starvation. Burning ketones as a fuel could be helpful for a wide range of people, from elite athletes to patients with Alzheimer’s Disease and diabetes. T∆S, a spin-out from Oxford University, has developed a ketone drink that rapidly raises levels of ketones in the blood.

Development of a Non-Invasive Measure of IHDVPS

Christopher Broyd is a clinical research fellow with a particular interest in structural heart disease. His main focus of research is in the field of Transcatheter Aortic Valve Implantation (TAVI) and Mitraclips. Currently he is directing his attention to coronary waveform pre- and post-TAVI, gene expression in left ventricular hypertrophy and aortic ow dynamics.
Covalent Drug Discovery for Future Therapeutics

We’re spinning out a CRO with a focus on covalent drug discovery. My PhD work established a new technology for conducting target-directed screening of covalent molecules. This award will facilitate the expansion of our covalent-fragment library and thus aid the development of new therapeutics against challenging diseases.

Gregory Craven
g.craven13@imperial.ac.uk

Novel Cell Line with Enhanced Lentiviral Vector Production Capacity for Gene Therapy

During his DPhil project, Jean-François Gélinas identified factors in cells that inhibit lentiviral vector production. His current goal is to develop novel cell lines in which these inhibitory genes have been removed and, therefore, allow increased lentiviral vector production. Jean-François Gélinas completed a DPhil at Oxford University working on enhancing lentiviral vector production for gene therapy.

Jean-François Gélinas
jean-francois.gelinas@ndcls.ox.ac.uk

Gold (2016)
University of Oxford

Gold (2017)
Imperial College London
There is an increasing recognition of music’s wide medical potential, spanning from pain relief to psychological support. For my PhD, I have studied the psychological and human brain effects of music in the context of ‘psychedelic therapy’. In this research, we showed how music can be best utilized to maximise positive clinical outcomes in patients suffering from treatment-resistant depression. For this fellowship, I work to research and develop a music system that generates and adapts music to each individual patient with the aim to maximise therapy outcomes in diverse health-care contexts.

Chimeric antigen receptors (CARs) are therapeutic molecules that redirect immune cells to tumours, resulting in the death of detected cancer cells. CARs have shown great promise in clinical trials of some types of cancer, especially leukemia, but they are often not effective in killing strongly immunosuppressive cancer cells. Johannes’ previous work on the immune receptor CD6 revealed a region of CD6 that strongly activates the immune system in a unique manner. He currently investigates the application of the identified CD6 region to enhance CARs for the treatment of leukemia and solid tumours.
During his DPhil project, Jean-François Gélinas identified factors in cells that inhibit lentiviral vector production. His current goal is to develop novel cell lines in which these inhibitory genes have been removed and, therefore, allow increased lentiviral vector production. Jean-François Gélinas completed a DPhil at Oxford University working on enhancing lentiviral vector production for gene therapy. dtc.ox.ac.uk/people/12/leonavicius

Kate C. Tatham's main research interests include the mechanisms of lung injury and specifically the role of monocytes following pulmonary ischaemia and inflammation. She was recently awarded her PhD from Imperial College for which she received an Imperial Wellcome Clinical Research Fellowship. She is also the co-organiser of the Imperial College Biomedical Research MRes stream in Anaesthesia, Pain Medicine and Intensive Care and of the trainee-led PeriopResearch.com group, arranging annual conferences to raise the profile of perioperative research across London and the Southeast. imperial.ac.uk/people/k.tatham

Mesenchymal Stem Cells: A Novel Therapy For Sepsis

Kate C. Tatham’s main research interests include the mechanisms of lung injury and specifically the role of monocytes following pulmonary ischaemia and inflammation. She was recently awarded her PhD from Imperial College for which she received an Imperial Wellcome Clinical Research Fellowship. She is also the co-organiser of the Imperial College Biomedical Research MRes stream in Anaesthesia, Pain Medicine and Intensive Care and of the trainee-led PeriopResearch.com group, arranging annual conferences to raise the profile of perioperative research across London and the Southeast. imperial.ac.uk/people/k.tatham
Rugby Health: An application to support post-professional athletes

This project combines epidemiological, sports medicine and physiological measures of sporting exposure, to examine athlete health and define healthy aging within rugby players. Having established a higher rate of musculoskeletal pain and osteoarthritis in former players, this project aims to use big data methodology to inform and manage health status within this group, and encourage maintained physical activity and decreased isolation in players transitioning from elite sporting environments.

Diagnosis of Donor Kidney Quality that is Predictive of Transplantation Outcomes

Maria Kaisar’s scientific interest lies in Transplantation Science. Her research focuses on developing novel assessment tools of donor organ quality that are predictive of transplantation outcomes and how novel technologies can be translated and implemented into the clinic. She is using novel proteomic technologies to identify biomarkers which can be used in diagnostic tests to evaluate donor kidney quality and post-transplantation function. nds.ox.ac.uk/team/maria-kaisar
Novel screening platform to identify new drugs to treat brain cancer

There is a vast unmet need to identify new therapies to block the invasion of brain cancer. As part of my DPhil, I developed a new screening technique to study the initiation of migration of tumour cells and have successfully identified around 30 small molecules that block tumour invasion. This project will capitalise on this research and expand the initial screen to validate a series of small molecules that can be taken forward as a series of potential drug candidates to treat brain cancer. [dpag.ox.ac.uk/team/martin-ducker](http://dpag.ox.ac.uk/team/martin-ducker)

ARIA

The aim of this project is to enable physiotherapists to treat patients remotely in the comfort of their homes. This cannot be done with current technologies which have either limited field-of-view or limited data acquisition. ARIA leverages a new emerging digital technology to deliver physiotherapy to scale: virtual reality (VR). VR combines in a single wearable device means to acquire, visualise and interact with medical data. The outcome of this project will be a low-cost VR platform that enables physiotherapists and patients to exercise and interact in real-time as if they were in the same room.
Enabling 3D brain imaging with ultrasound

The focus of this project is to adapt technology from the gas and oil industry to image the human body, and in particular the brain. We are developing technology able to image the brain in three dimensions faster than current methods, at a reduced cost and providing reliable and quantitative results. The use of non-ionising radiation and the portability of the imaging system make it suitable for patients of all ages and regions, even in remote areas. Quick imaging after a brain injury or sudden disease will translate into early interventions, improved survival rates and faster recovery of patients.

Targeting the SIRT1-Autophagy Pathway to Treat Osteoarthritis

Pradeep Kumar Sacitharan’s field of research is osteoarthritis which is the most common form of arthritis worldwide and there is existing effective treatment for the disease. Age is the primary risk factor for the disease and its prevalence is set to increase due to the increase of average global lifespans. During his PhD, which focused on the ageing biology of a crippling disease called osteoarthritis, Pradeep Kumar Sacitharan discovered how ageing processes decrease in cells and why this causes osteoarthritis.
Metabolic Phenotyping of Chronic Venous Ulceration

Chronic venous ulceration is an important health concern, with clinical, social and financial burdens. Despite adequate treatment, many ulcers progress or recur. The ability to identify these with a simple test would be very useful in clinical practice, as it would help tailor care to the individual patient. This project aims to describe the molecules present in a biopsy of a venous ulcer, and their relationship to healing status, using DESI-MS, a technique able to detect not only the presence of metabolites but also their distribution. This information will help develop further projects looking at disease progression, recurrence and treatment.

Autophagy Inducers for Leukemia Therapy

I am aiming to develop drugs that induce differentiation through a novel autophagy-FAO-OX-PHOS pathway that we recently identified (Riffelmacher et al, Immunity, 2017). For that, I will use our unique model systems of myeloid leukemia and establish the proof of principle for this novel therapeutic approach and confirm the mechanism of action through autophagy. Then, we will go on to conduct small molecule screens with a library of novel autophagy inducers in murine and human models of the disease.

cell.com/immunity/abstract/S1074-7613(17)30363-1
Development of low-containment compatible surrogate pandemic influenza and Ebola virus

Pandemic influenza and Ebola outbreaks cause millions of deaths and a huge impact on the economy. Development of vaccines and treatments are partially hindered by the lack of access to high containment laboratories for testing against the highly contagious and lethal pandemic influenza and Ebola virus and the high experimental costs. This project aims to develop recombinant influenza virus and pseudotyped Ebola virus capable of expressing reporter protein which as a surrogate to the wild type viruses which is more cost-effective and safe to be used in the commonly available low containment laboratories.
EIT Health UK-Ireland is part of EIT Health, one of the largest healthcare initiatives worldwide.
About EIT Health

EIT Health is one of the largest healthcare initiatives worldwide. Its goal is to sustainably advance the foundations of healthcare and thus promote the future conditions for healthier living and wellbeing of people across Europe. EIT Health does this by leveraging the expertise of more than 140 leading organisations spanning key areas of healthcare such as Pharma, MedTech, Payers, Research Institutions and Universities. With a budget of 2 billion EUR over the next decade, EIT Health will purposefully invest in Europe’s best entrepreneurial talents and creative minds to foster the development and commercialisation of smart product and service solutions in the health care sector, addressing the challenges imposed by demographic change and ageing societies.

Headquartered in Munich (Germany), EIT Health has established six co-location centres
- London and Galway (UK/Ireland)
- Stockholm (Scandinavia)
- Barcelona (Spain)
- Paris (France)
- Mannheim and Heidelberg (Germany/Switzerland)
- Rotterdam (Belgium/Netherlands),
whilst the EIT Health InnoStars ensures wider participation and outreach across Europe.
About EIT Health UK-Ireland

EIT Health UK-Ireland is one of six co-location centres (CLCs) within EIT Health and broadly spans the region of the British Isles with the exception of Wales (which is part of the EIT Health InnoStars).

EIT Health UK-Ireland is the ‘home’ CLC for some of the largest companies in Europe, comprises world leading academic institutions and uniquely includes a group of Academic Health Science Networks.

Current Partners:

Contact EIT Health UK-Ireland CLC
2 Eastbourne Terrace
W2 6LG, London, United Kingdom
Email: clc.uk-ireland@eithealth.eu
www.eithealth.eu

Legal Name:
EIT Health UK-Ireland

Founded in:
2015

Region covered:
United Kingdom (not Wales) Ireland

Membership:
6 core partners
7 associate partners