

The All-Island Cancer Research Institute (AICRI): Vision and Progress



AICRI makes huge strides in developing an Overarching Framework for Cancer Research on the Island of Ireland



Professor William Gallagher
Professor of Cancer Biology,
UCD School of Biomolecular and
Biomedical Science
Conway Fellow, UCD Conway
Institute

Co-Lead, All-Island Cancer
Research Institute (AICRI)
Deputy Director, Precision
Oncology Ireland



Dr. Rosemarie Gannon
Project Manager, All-Island Cancer
Research Institute (AICRI)
Member, AICRI Steering Committee
and Core Working Group



Ciaran Briscoe
CEO, North East Cancer Research
Trust (NECRET)
Member, AICRI Steering Committee
and Core Working Group

About AICRI

The vision for All-Island Cancer Research Institute (AICRI) is to bring together the combined strengths of cancer researchers across the island of Ireland to create an overarching framework for cancer research.¹ Over the last 18 months, AICRI has brought together ten academic institutions and multiple other stakeholders from the healthcare sector, cancer patients, cancer charities, industry partners and government agencies. It has a broad research programme from cancer prevention to cancer diagnosis and treatment to survivorship and quality of life. AICRI has taken a bottom-up approach in its activities and has achieved considerable success over the past year, particularly in relation to acquisition of initial funding. Moreover, it has organised a series of highly successful research and other stakeholder workshops which have been key in honing the AICRI vision.

Significant Funding Successes

AICRI receives its first funding success in December 2021

In December 2021, AICRI received a New Foundations Award from the Irish Research Council. This €20,000 award from the Shared

Island Fund has allowed AICRI to hold a series of key stakeholder workshops in 2022 and to develop a dedicated website. These activities help raise the profile of the project, as well as make sure its objectives take on board relevant stakeholder input, including those with a lived experience of cancer.

AICRI receives its foundation stone funding in March 2022

In March 2022, AICRI was awarded €4 million in funding from the Shared Island Fund as a Strand III (Partnerships of Scale) award under the HEA North-South Research Programme. This award allows for the creation of an All-Island Doctoral and Post-Doctoral Research Training Programme in Precision Cancer Medicine (AICRIstart), led by Prof. William Gallagher (University College Dublin) and Prof. Mark Lawler (Queen's University Belfast). The AICRIstart programme will train ten doctoral students and ten post-doctoral fellows with significant expertise in precision cancer medicine and is due to begin in September 2022 and run for four years. By bringing together ten academic institutions on the island of Ireland (UCD, TCD, RCSI, TU Dublin, DCU, QUB, UU, NUIG, UL and UCC) in this foundational initiative, AICRIstart will catalyse

a unique all-island network of excellence in cancer research. Through its broader work, AICRI will contribute to policy development relevant to the Shared Island initiative, particularly in terms of building a healthier island.

Under the same HEA North-South Research programme, two additional large-scale AICRI-linked cancer research awards (circa. €4 million each) were announced in the areas of eHealth - An All-Island eHealth Hub for Cancer (led by Prof. Aedin Culhane, University of Limerick and Prof. Mark Lawler, Queen's University Belfast) and liquid biopsies - All-Ireland Cancer Liquid Biopsies Consortium (CLuB) (led by Prof. Lorraine O'Driscoll, Trinity College Dublin and Prof. Paul Mullan, Queen's University Belfast). Indeed, more than one third of the funding under the initial tranche of the scheme was allocated, as jointly announced by Taoiseach Micheál Martin and Minister Simon Harris on 2nd March 2022 to cross-border cancer research projects, largely linked to AICRI's collaborative process.

Four Cancer Research Workshops

Following a request for project ideas from the cancer research community across the island of Ireland, AICRI organised four

very engaging and stimulating research workshops over the past year covering key thematic areas which were well attended. On 26th November 2021, AICRI held an online workshop on Living With and Beyond Cancer which was led by Trinity College Dublin and attended by 100 people. Topics covered in this workshop included exercise and nutrition, communication and psychosocial needs and systems change and supporting optimum quality of life across the life span. The findings of the workshop highlighted the added value of research in this area of survivorship and living with and beyond cancer is to meet the needs of cancer patients to recover after a cancer diagnosis and to optimise their quality of life and that of their families.

On 24th March 2022, AICRI held an online workshop on Immuno-Oncology and the Microbiome which was led by the Royal College of Surgeons in Ireland and University College Cork and attended by 72 people. Topics covered in this workshop included tumour immunology, immune cell therapy for cancer and other forms of immunotherapy, as well as the role of the microbiome as a modulator of cancer risk and cancer development. This workshop again highlighted the



AICRI Digital Health in Cancer Workshop, 27th April 2022, Limerick.

Left to right: George Maybury (Dell Technologies), Prof. William Gallagher (UCD and Co-Lead, AICRI), Prof. Aedin Culhane (UL and Co-Lead, All-Island eHealth Hub for Cancer) and Prof. Mark Lawler (QUB and Co-Lead, AICRI).

need for greater collaboration between academics and clinicians. The workshop also pointed out the need for greater patient involvement in research and that patient input should be an integral part of clinical research projects.

On 27th April 2022, AICRI held a hybrid Digital Health in Cancer Workshop at Dell Technologies, Limerick, led by the University of Limerick and Queen's University Belfast with over 120 attendees. Topics covered in this workshop included digital health in the cancer landscape on the island of Ireland, data sharing, patient involvement and federated eHealth, mining 'omic' and image data in cancer research. Findings from this workshop highlighted the need for transparency and the importance of developing trust from the outset and clearly explaining what data is being used for. The workshop also pointed out that there is a need for more training in digital pathology and in the use of artificial intelligence (AI). We heard about the potential of AI-enabled digital twins in enabling the development of personalised diagnostics and treatments for cancer patients. We were reminded that clinicians need more support as technology at the point of care continues to evolve.

Finally, on 26th May 2022, AICRI held an online workshop on Functional Cancer Genomics and Precision Oncology, led by Trinity College Dublin and University College Dublin, which was attended by 180 people. Topics covered in this workshop included harnessing functional genomics to develop targeted therapies for cancers, genomics-driven RNA therapeutics in oncology, digital twins for precision oncology, and adaptive clinical trial designs to facilitate precision oncology. The workshop highlighted the importance of training in state-of-the-art technology and analysis, as well as the natural progression from functional cancer

genomics to precision oncology. The workshop also pointed out the need for more collaboration between scientists and clinicians, as exemplified by ongoing discussions in relation to national policy on genomics and genetics which the HSE is currently developing together with a variety of stakeholders.

Engagement with Patients Living with Cancer

Patients are at the core of our work and indeed our ethos is "With the patient; around the patient; for the patient". On 30th March 2022, we held a hybrid Patient Stakeholder Workshop, held in Cork and co-led by AICRI representatives and the Patient Voice in Cancer Research (PVCR) at UCD. This workshop was attended by 64 people (24 in-person and 40 online). This was a key event as one of AICRI's main objectives is to engage with cancer patient advocacy groups across the island to ensure the

voice of patients living with and beyond cancer is heard. This is central to AICRI's vision.

Engagement with Cancer Charities Active in Research

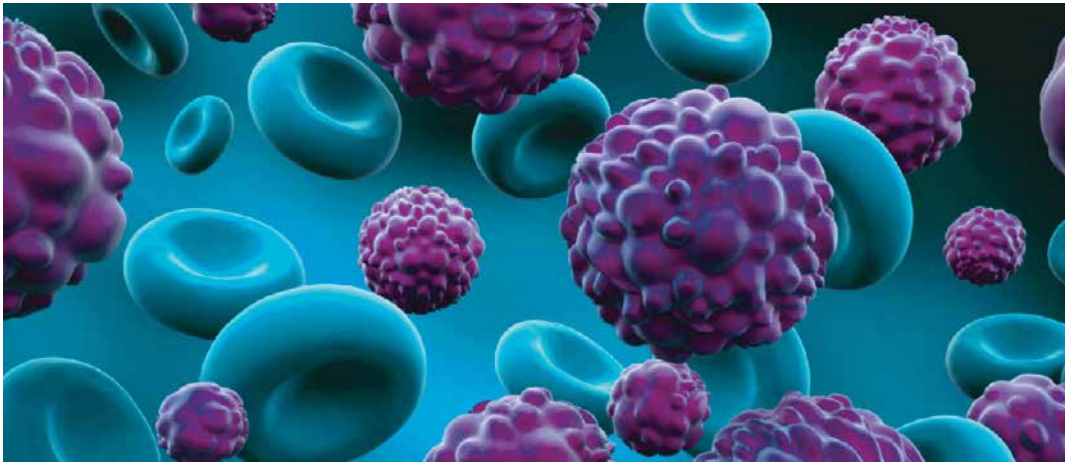
On 30th June 2022, we held an online Cancer Charities workshop with seven key cancer research-supporting charities on the island of Ireland as follows: Cancer Focus NI, Friends of the Cancer Centre Northern Ireland, Northern Ireland Pancreatic Cancer, the Irish Cancer Society, Breakthrough Cancer Research, the Oesophageal Cancer Fund and the National Children's Research Centre. This was a very engaging workshop as we explored how these cancer charities could collaborate with one another and learned more about their current research activities and priorities. Interestingly, several of these cancer charities have recently expanded their remit to include funding for all-island cancer research programmes in certain areas, such as survivorship (Irish Cancer Society) and oesophageal cancer (Breakthrough Cancer Research).

AICRI/PVCR Patient Stakeholder Workshop, 30th March 2022, Cork.

Left to right: Prof. Amanda McCann (UCD and Lead, Patient Voice in Cancer Research), Prof. William Gallagher (UCD and Co-Lead, AICRI), Stephen Teap (Facilitator for Workshop and Co-Founder, 221+ Group), Ciara McNamara (Patient Advocate), Prof. Mark Lawler (QUB and Co-Lead, AICRI), Tom Hope (Patient Advocate), Kay McKeon (UCD and Patient Advocate) and John Wall (Patient Advocate)



ONCOLOGY FOCUS: AICRI



Political Engagement

Over the past year, AICRI team have had a variety of productive meetings with key political stakeholders. Highlights included a meeting in Leinster House with the Joint Committee on the

Implementation of the Good Friday Agreement (JCIGFA) on 21st October 2022. At this meeting, with public representatives from Ireland and Northern Ireland, the AICRI Core Working Group team presented its vision for AICRI and discussed its future plans.²

On 20th July 2022, we presented the AICRI vision at a panel discussion on 'The Future of Precision Medicine: Fast-Tracking Innovation', at the British Ambassador's Private Residence, Glencairn, Dublin. On 29th July 2022, there was also a very

productive meeting on future US-facing engagement and collaboration with the US Ambassador to Ireland Claire Cronin, US Embassy, Ballsbridge, Dublin.

Upcoming Event

On 28th September 2022, we will hold the AICRI Showcase: Vision and Progress event in collaboration with 15th International Symposium on Translational Research in Oncology, Herbert Park Hotel, Dublin, organised by Prof. John Crown and colleagues. This in-person workshop will provide an opportunity for AICRI to showcase its achievements to date and roadmap future activities. All of our stakeholders are welcome and encouraged to attend this free event.

The Future

Considerable progress has been made over the last 12 months in terms of progressing the AICRI vision of creating an overarching framework for cancer research across the island of Ireland. Key next steps will be to attract significant core funding to place AICRI on a longer term footing, while also ensuring that the priority areas of focus highlighted in research workshops are supported.

Contact Details

Prof. William Gallagher, AICRI Co-Lead (william.gallagher@ucd.ie)

Dr. Rosemarie Gannon, AICRI Project Manager (rosemarie.gannon@ucd.ie)

Website: www.aicri.org
Follow us on Twitter: @AICRIproject

References

- Gallagher, W. (2021) "Progressing the Vision of an All-Island Cancer Research Institute (AICRI)", September Issue, Hospital Professional News (Hospitalprofessionalnews.ie) pp 24 and 26
- Joint Committee on the Implementation of the Good Friday Agreement Meeting <https://www.oireachtas.ie/en/oireachtas-tv/video-archive/committees/4804/>



AICRI team meet with the Joint Committee for Implementation of the Good Friday Agreement (JCIGFA), 21st October 2021, Leinster House, Dublin.

Left to right: Senator Emer Currie, Committee Chair Fergus O'Dowd, TD, Prof. William Gallagher (UCD and Co-Lead, AICRI), Prof. Maeve Lowery (TCD and Medical Oncologist St. James's Hospital), Senator Erin McGreehan, Prof. Mark Lawler (QUB and Co-Lead, AICRI), Eibhlin Mulroe (CEO, Cancer Trials Ireland), Brendan Smith, TD and Ciaran Briscoe (CEO, NECRET)