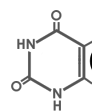




**QUEEN'S  
UNIVERSITY  
BELFAST**

**THE PATRICK G JOHNSTON  
CENTRE FOR  
CANCER RESEARCH**



**Charles and Patricia  
Heidelberg Foundation  
For Cancer Research**

## **26<sup>th</sup> International Charles Heidelberg Symposium on Cancer Research**

Queen's University Belfast Patrick G Johnston Centre for Cancer Research  
Belfast, Northern Ireland, UK  
**Riddell Hall**  
October 2-4, 2024

### **Members of the International Organizing Committee:**

- **Robert D. Ladner, PhD**, Chair, (Founder and CEO of CV6 Therapeutics and Reader (Associate Professor), Patrick G Johnston Centre for Cancer Research, Queen's University Belfast)
- **Joseph R. Landolph, Jr., PhD**, Co-Chair, (Associate Professor of Molecular Micro-biology and Immunology and Associate Professor of Pathology, Member, USC/Norris Comprehensive Cancer Center Keck School of Medicine, Associate Professor of Molecular Pharmacology and Toxicology, School of Pharmacy - University of Southern California)
- **Eliezer Huberman, PhD**, Co-Chair (President and Member of the Board of Directors of The Charles and Patricia Heidelberg Foundation for Cancer Research and founder, scientific director, and CEO of Novadrug LLC)
- *Additional Members:* **Wei Li, PhD** (Professor and Director of Genetics, Molecular & Cell Biology Graduate Program, Department of Dermatology and USC-Norris Comprehensive Cancer Center - The University of Southern California, Keck Medical Center)

### **Members of the Local Organizing Committee:**

- **Robert D. Ladner, PhD**, Chair, (Founder and CEO of CV6 Therapeutics and Reader in the School of Medicine, Dentistry and Biomedical Sciences at Queen's University Belfast)
- **Melissa LaBonte Wilson, PhD**, Co-Chair (Senior Lecturer, Patrick G. Johnston Centre for Cancer Research – Queen's University Belfast)
- *Additional Members:*

**Daniel Longley, PhD** (Director, Patrick G Johnston Centre for Cancer Research School of Medicine, Dentistry and Biomedical Sciences - Queen's University Belfast)

*Rachael McGuickin* (Director of Business Development, Sustainability and Transformation - Visit Northern Ireland)

October 2, 2024

Tea/Coffee/Pastry on arrival @ QUB Riddel Hall

8:00-9:00 **Registration Open**

9:00– 9:45 **Welcome**  
*Chair:* Robert D. Ladner, PhD

**Eliezer Huberman, PhD**

(President and Member of the Board of Directors of The Charles and Patricia Heidelberger Foundation for Cancer Research and founder, scientific director, and CEO of Novadrug LLC)

**Joseph R. Landolph, Jr., PhD**

(Associate Professor of Molecular Microbiology and Immunology and Associate Professor of Pathology, Member, USC/Norris Comprehensive Cancer Center Keck School of Medicine, Associate Professor of Molecular Pharmacology and Toxicology, School of Pharmacy – University of Southern California)

9:45-11:00 **Health and Life Science Cancer Research across the Island of Ireland**  
*Chair:* Robert D. Ladner, PhD

**Daniel Longley, PhD: 'Johnston Centre/Transformation of Cancer Care in NI'**

(Director, Patrick G Johnston Centre for Cancer Research School of Medicine, Dentistry and Biomedical Sciences - Queen's University Belfast)

**Mark Lawler, PhD: 'All Island Cancer Research Institute and QUB-UCD Cancer Research Collaboration'**

(Associate Pro-Vice-Chancellor and Professor of Digital Health, Chair in Translational Cancer Genomics, Patrick G. Johnston Centre for Cancer Research – Queen's University Belfast; Scientific Director DATA-CAN The UK's Health Data Research hub for Cancer and Chair of the International Cancer Benchmarking Partnership)

**William Gallagher, PhD: 'All Island Cancer Research Institute and QUB-UCD Cancer Research Collaboration'**

(Full Professor of Cancer Biology and Co-Lead of the All-Island Cancer Research Institute, University College Dublin)

**Robert Ladner, PhD: 'USA-Northern Ireland Connections and Transforming Cancer Care'**

(Founder and CEO of CV6 Therapeutics and Reader (Associate Professor), Patrick G Johnston Centre for Cancer Research, Queen's University Belfast)

11:00-11:30 Tea/Coffee Break

11:30 – 12:00 **Poster Session I**

12:00– 13:00 **Lunch**

13:00 – 15:00 **Session 1: Unravelling Carcinogenesis: From Initiation to Metastasis**  
*Chair(s):* Max Costa and Connor Brown

**Yoshinori Murakami, MD, PhD:** *'Construction of a new disease prevention digital twin by integrating multi-layered bioinformation'*  
(Professor, Department of Molecular Pathology, Institute of Advanced Medical Science; Nippon Medical School, Tokyo, Japan)

**Cristina Branco, PhD:** *'Chemotherapy-induced microvascular remodeling and impact on (pre)metastatic microenvironment'*  
(Senior Lecturer, Patrick G Johnston Centre for Cancer Research, Queen's University Belfast, UK)

**Wei Li, PhD:** *'Heat Shock Protein-90 in Cancer Clinical Trials: History, Presence and Future'*  
(Professor, Director of Genetics, Molecular & Cell Biology Graduate Program, USC-Norris Comprehensive Cancer Center, USA)

**Gloria M. Calaf, PhD:** *'Unravelling breast carcinogenesis: From Initiation to Metastasis: Role of estrogen, acetylcholine and prolactin in breast carcinogenesis'*  
(Professor, Instituto de Alta Investigación, Universidad de Tarapacá, Chile)

15:00 – 15:30 Coffee/Tea Break

15:30 – 17:00 **Session 2: Cancer Genomics and Precision Medicine: Personalizing Cancer Medicine**  
*Chair(s):* Wei Li and Parisa Naeli

**Manuel Salto-Tellez, MD:** *'Digital Pathology, Artificial Intelligence and Multimodal Analysis'*  
(Clinical Professor, Chair of Molecular Pathology, Patrick G Johnston Centre for Cancer Research; Clinical Consultant Pathologist; Lead of QUB Precision Medicine Centre of Excellence; Queen's University Belfast, UK  
Professor on Integrative Pathology; Institute for Cancer Research (ICR), London)

**Brent Harris, MD, PhD:** *'Update on Senescence and Neurodegeneration'*  
(Director of Neuropathology, Georgetown University Medical Centre, USA)

**Richard Kennedy, MD, PhD:** *'20 Years of Diagnostic Development: What have we learnt? What's Next?'*  
(Global VP Biomarker Development and Medical Director, Almac Group; Professor, Patrick G Johnston Centre for Cancer Research, Queen's University Belfast, UK)

**Paul Mullan, PhD:** *'The development of novel liquid biopsy assays for the improved clinical management of poor outcome cancers'*  
(Professor, Patrick G Johnston Centre for Cancer Research, Queen's University Belfast, UK; Co-founder GenoME Diagnostics)

**October 3, 2024**

Tea/Coffee/Pastry on arrival @ QUB Riddel Hall

8:00-9:00

**Registration Open**

9:00-10:00

**Keynote Lecture: Ruth Plummer, MD, PhD**

*Chair(s): Vicky Coyle*

*'Translational Research: From Bench to Bedside in Cancer Treatment – experience of academic drug discovery'*

(Clinical Professor of Experimental Cancer Medicine, Translational and Clinical Research Institute; Newcastle University, UK)

10:00 – 11:30

**Session 3: Translational Research: From Bench to Bedside in Cancer Treatment**

*Chair(s): Kienan Savage and Niall Byrne*

**Watcharin Loilome, PhD:** *'Combating Cholangiocarcinoma in Thailand: Opportunities and Challenges'*

(Associate Professor, Molecular Oncology; Director of Cholangiocarcinoma Research, Khon Kaen University, Thailand)

**Udai Banerji, MD:** *'Exploration of combinations and sequences of administration of anticancer drugs to improve outcomes'*

(Deputy Director of Drug Development Unit, Professor of Molecular Cancer Pharmacology; Institute of Cancer Research and The Royal Marsden Hospital NHS Foundation Trust, UK)

**Vicky Coyle, MD:** *'TBC'*

(Clinical Professor, Patrick G Johnston Centre for Cancer Research, Queen's University Belfast, UK)

**Roisin Connolly, MD:** *'Translational Breast Cancer Research; Opportunities & Challenges'*

(Director Cancer Research and Professor Gerald O'Sullivan Chair, Cancer Research, University of College Cork and Cork University Hospital, Ireland)

11:30 – 12:00

Coffee/Tea Break

11:00 – 12:30

**Session 4: 5-Fluorouracil:** Honouring a pioneer in cancer therapy and exploring future avenues.

*Chair(s): Udai Banerji and Ally-Jo Emerson*

**Bruce Chabner, MD:** *'Charles Heidelberger and the Legacy of 5-FU: A Historical Journey and Its Lasting Impact on Cancer Treatment'*

(Director of Clinical Research, Massachusetts General Hospital Cancer Center, USA)

**Emma Kerr, PhD:** *'Mitochondrial metabolism: a chemotherapy-imposed vulnerability in colorectal cancer'*

(Senior Lecturer Cancer Metabolism, Cancer Research UK Werth Trust, Patrick G Johnston Centre for Cancer Research, Queen's University Belfast, UK)

**Robert Ladner, PhD:** *'TBC'*

(Founder and CEO of CV6 Therapeutics, Reader (Associate Professor), Patrick G Johnston Centre for Cancer Research, Queen's University Belfast, UK)

**Richard Wilson, MD:** *'TBC'*

(Professor of Gastro-Intestinal Oncology, University of Glasgow, UK)

12:30 – 13:30                      **Lunch**

## October 4, 2024

Tea/Coffee/Pastry on arrival @ QUB Riddel Hall

8:00-9:00                              **Registration Open**

9:00 – 9:45                              **Session 5: Genomic Instability and Cancer: Exploring the Impact of DNA Damage**

Chair(s): Gloria Calaf and Leanne Bradley

**Kienan Savage, PhD:** *'Optimizing chemo-immunotherapeutic combinations in breast cancer'*

(Professor of Molecular Oncology, Patrick G Johnston Centre for Cancer Research, Queen's University Belfast, UK)

**David K Ann, PhD:** *'Lessons Learned from PARPi'*

(Professor, Diabetes Complications and Metabolism; Dean, Irell and Manella Graduate School of Biological Sciences, Beckman Research Institute; City of Hope, USA)

9:45 – 10:30                              **Early Career Showcase I**

10:30 – 11:00                              Coffee/Tea Break

11:00 – 12:30                              **Early Career Showcase II**

12:30 – 13:30                              **Lunch**

13:30 – 14:00                              **Poster Session II**

14:00 – 15:00                              **Session 6: Advances in Cancer Biology**

Chair(s): Brent Harris and Maggie Barros

**Miwako Kato Homma, PhD:** *'Cell cycle-dependent activation and genomic recruitment of protein kinase CK2: a prognostic factor for cancer recurrence.'*

(Associate Professor, Department of Biomolecular Science, Fukushima Medical University, Japan)

**Tim Harrison, PhD:** *'Exploiting Engineered Binding Domains in Next Generation Antibody-Drug Conjugate Design'*

(McClay Professor of Medicinal Chemistry, Patrick G Johnston Centre for Cancer Research, Queen's University Belfast, UK; Vice President Drug Discovery, Almac Discovery)

**Christopher Scott, PhD:** *'TBC'*

(Dean of Research, School of Medicine Dentistry and Biomedical Sciences; Professor, Patrick G Johnston Centre for Cancer Research, Queen's University Belfast, UK)

15:00 – 16:30

**Session 7: Metal and Radiation Biology**

*Chair(s):* Watcharin Loilome and Francisco Liberal

**Joseph R. Landolph Jr., PhD:** *'Insoluble Nickel (II) Compounds Induce Mutations in Proto-Oncogenes/ Other Genes, Deletions of Genes, Amplifications of Proto-Oncogenes (Ect-2)/Other Genes, and Differential Expression of 150 Genes in C3H10T1/2 Mouse Mesenchymal Cell Lines, Leading to Morphological/Neoplastic Transformation of 10T1/2 Cells'*

(Associate Professor of Molecular Microbiology and Immunology, Pathology, and Pharmacology & Toxicology, University of Southern California, USA)

**Max Costa, PhD:** *'Arsenic and Chromate cause methylation of MEG3 to induce carcinogenesis'*

(Professor Environmental Medicine, Department of Medicine, New York University Grossman School of Medicine, USA)

**Joe O'Sullivan, MD, PhD:** *'Molecular Radiotherapy in Advanced Prostate Cancer- The current State-of-the-art and emerging opportunities'*

(Clinical Professor of Radiation Oncology, Patrick G Johnston Centre for Cancer Research, Queen's University Belfast, UK)

**Arul Veerappan, PhD:** *'Polyadenylation of canonical histone H3.1 in bisphenol associated carcinogenesis'*

(Assistant Professor, Division of Environment Medicine, New York University Grossman School of Medicine, USA)

16:30 – 17:00

**Meeting Closing**

Robert D. Ladner, PhD

Joseph R. Landolph, Jr., PhD



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