

Patrick Gerard Johnston, M.D., Ph.D.



Current Position: Dean, School of Medicine, Dentistry and Biomedical Sciences, Queen's University Belfast
Director, Institute of Health & Life Sciences, Queen's University Belfast

Office Address: H.S.N.B, Block 10 Health Sciences
School of Medicine, Dentistry and Biomedical Sciences
97 Lisburn Road Belfast, BT9 7BL
Northern Ireland, UK

Work Phone: +44 (0)28 9097 2764

Work Email: p.johnston@qub.ac.uk

EDUCATION

1976-1982	MB, BCh, BAO (Honours)	University College Dublin, Ireland.
June 1985	MRCPI	Royal College of Physicians of Ireland, Dublin, Ireland.
December 1985	Diploma in Child Health	University College Dublin, Ireland.
December 1990	MD	University College Dublin, Ireland.
June 1995	PhD	University College Dublin, Ireland.
June 1997	FRCPI	Fellow of the Royal College of Physicians of Ireland
June 1998	FRCP	Fellow of the Royal College of Physicians, London

ACADEMIC APPOINTMENTS

Jan 1991 - June 96	Senior Investigator, Medical Oncology, NCI-Navy Medical Oncology Branch, National Cancer Institute, National Institutes of Health, Bethesda, MD.USA
July 1996 - Present	Professor and Chair of Department of Oncology, Queens University Belfast, Belfast, Northern Ireland, UK
April 1999 - 2004	Director, Cancer Research Centre, Queen's University Belfast, N. Ireland
Mar 2004 - Feb 2008	Director, Centre for Cancer Research & Cell Biology, Queen's University Belfast
Sep 2007 - Present	Dean, School of Medicine, Dentistry & Biomedical Sciences, Queen's University Belfast
Sep 2007 - Present	Director, Institute of Health & Life Sciences, Queen's University Belfast

HONOURS AND AWARDS

- MB, BCh, BAO (Honours Degree)
- National Cancer Institute Fellowship - 1987
- Irish Society of Gastroenterology Gold Medal, November 1987
- Alton Gold Medal Prize, Mater Hospital, University College Dublin, November 1990
- Young Investigator Award, American Society of Clinical Oncology, 1991
- National Cancer Institute Technology Award, October 1993
- National Cancer Institute Grand Rounds, National Institutes of Health, 2000
- American Cancer Society Presidential Lecture and Address, Atlanta, 2003
- Tom Connors Award Lecture – National Cancer Research Institute, 2005
- Biolink USA – Ireland Life Science Award 2007
- University College Dublin – Distinguished Graduate Award 2008
- Institute of Molecular Medicine, Dublin – Cancer Award 2008
- Alumnus Illustrissimus Award, St Columb's College, Derry, N Ireland, 2008

PROFESSIONAL SOCIETIES

- Royal College of Physicians Ireland
- Royal College of Physicians (London)
- Royal Irish Academy of Medicine
- Association of Physicians of Great Britain and Ireland
- American Society of Clinical Oncology
- American Association for Cancer Research
- American Association for Advancement of Science
- European Society of Medical Oncology
- Pharmacology and Molecular Mechanisms Group, EORTC
- Irish Association for Cancer Research

CURRENT MEMBERSHIP OF COMMITTEES/BOARDS

Europe

- European Organisation for Research and Treatment of Cancer (EORTC) - Gastrointestinal Cancer Group Committee
- EORTC PAMM Group
- Scientific Advisory Board of VUmc Cancer Center Amsterdam
- Chair, International Selection Committee for the Bob Pinedo Award for Cancer Care

International

- NCI-All-Ireland Cancer Consortium Implementation Board
- Singapore Cancer Advisory Board
- Society for Translational Oncology (Founder and Co-Chair)
- Almac Diagnostics (Founder and Director)
- American Society for Clinical Oncology Scientific Program Committee
- International Academy for Advanced Oncology (IAAO), Japan - EU Board Member

MEMBERSHIP OF EDITORIAL BOARDS

- The Oncologist (Senior Editor; Gastrointestinal Cancer Section Editor)
- Journal of the National Cancer Institute (2001-2010)
- Journal of Clinical Oncology (2002-06)
- Clinical Cancer Research (2002-2006)
- Clinical Colorectal Cancer
- PLoS Medicine

PUBLICATIONS

>150 publications in peer-reviewed journals.

Talk at IAAO 2011

Session; Special Lecture

Title: The Methodological Challenge of Delivering Personalised Therapy for Cancer Patients

Abstract

Over the last two decades there have been very significant improvements in cancer treatment and patient outcomes in a wide variety of cancers such as breast, colorectal and lung cancer. These improvements have been followed by a plethora of biomarker studies to refine patient prognostic information and to try and predict which patient group may benefit most from systemic chemotherapy or targeted therapy. Biomarkers such as ER status HER2 in breast cancer and most recently KRAS status in colorectal cancer represent important biomarkers that help refine both prognostic and predictive information and improve the precision with which we are able to define those patient cohorts that benefit from specific therapies.

More recently the introduction of high throughput technologies has enabled us to classify tumours at a molecular level that traditionally have the same clinical and pathological features such as tumour grade and stage. However, despite the revolution that has occurred in the field of genomic and biomarker research, none of these genomics markers are as yet commonly used in clinical practice. These studies often have poorly defined study endpoints and are mostly retrospective sub-group analysis from larger clinical trials, or studies based on available tumour biopsies from heterogeneous patient cohorts. The challenge going forward in drug development is to move away from routine clinical trial approaches and move more towards a “Stratified Medicine” approach targeting well defined populations. In order to do this we must focus on designing clinical trials with enough statistically power, with clearly defined study endpoints, in stratified patient populations that allow us to evaluate and validate potential biomarkers of response to therapy. Novel adoptive clinical trial design incorporating putative genomic prognostic/predictive markers in randomised perspective phase II or III studies will enable clinical validation of these markers and may facilitate rapid implementation of biomarkers into routine medical practice.

My talk will focus on the challenges of adapting existing and novel biomarkers into clinical trial development and explore some of the hurdles that need to be addressed in order to do this effectively.