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CCRCB  
Centre for  
Cancer Research  
& Cell Biology

# Bulletin

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## LORD MAYOR OF BELFAST VISITS BELFAST CANCER RESEARCH UK CENTRE

On Friday 20 July 2012 the Lord Mayor of Belfast paid a visit to the Belfast Cancer Research UK (CR-UK) Centre to find out about the pioneering prostate cancer research taking place in the city. The visit was arranged by Mrs Katie Scott, CR-UK Research Engagement Manager.

During the visit he met with Dr David Waugh and Professor Joe O'Sullivan. Dr Waugh is leading a CR-UK funded project to identify ways to improve radiotherapy for men with prostate cancer. He also works closely with Professor O'Sullivan to translate his research to the benefit of patients at the Northern Ireland Cancer Centre.

The Lord Mayor was also taken on a guided tour of the labs by Dr Stephen Walker and took up the challenge of loading a gel using a pipette with great enthusiasm.

The visit was a fantastic success with the newly elected Lord Mayor expressing a clear interest in working in partnership with CR-UK and CCRCB to raise awareness of male cancers and to champion the Belfast CR-UK Centre.



L-R: Professor Patrick Johnston (Dean of the School of Medicine, Dentistry and Biomedical Sciences, Queen's University); Professor Sir Peter Gregson (President and Vice-Chancellor, Queen's University); Lord Mayor of Belfast, Alderman Gavin Robinson; Dr David Waugh (Acting Director, CCRCB); Professor Joe O'Sullivan (Professor of Radiation Oncology and Clinical Oncologist, CCRCB)



L-R: Dr David Waugh (Acting Director, CCRCB); Professor Joe O'Sullivan (Professor of Radiation Oncology and Clinical Oncologist, CCRCB); Professor Manuel Salto-Tellez (Acting Deputy Director, CCRCB); Mrs Katie Scott (CR-UK Research Engagement Manager); Professor Sir Peter Gregson (President and Vice-Chancellor, Queen's University); Professor Patrick Johnston (Dean of the School of Medicine, Dentistry and Biomedical Sciences, Queen's University); Lord Mayor of Belfast, Alderman Gavin Robinson and Ms Ruth Boyd (CR-UK Senior Research and Information Nurse)

# A CHANGE OF NAME FOR CR-UK'S LOCAL ENGAGEMENT AND DEVELOPMENT TEAM

There is a change of name for Katie Scott, who was recently appointed as Cancer Research UK's (CR-UK) Local Engagement and Development Manager. Whilst her role will remain unchanged her job title has changed to Research Engagement Manager. This move is being made to make the function of her role clearer to the public.

Cancer Research UK has 12 Research Engagement Managers working across the UK who engage local communities in research near them and the impact it is having on cancer detection and care.

As the Belfast Research Engagement Manager, Katie's role is to bring local cancer research to life - to engage people in Belfast and across Northern Ireland in the research taking place in their community. This involves arranging visits and tours of the CCRCB and Northern Ireland Cancer Trials Centre for people affected by cancer and

others who want to know more about the research taking place at the Belfast CR-UK Centre. Research engagement is also about finding opportunities for researchers to go out and speak about their work at community events, to reach more people and build greater support for the pioneering research taking place at the Centre.

Katie also works closely with the press teams at CR-UK and the other Belfast CR-UK Centre partners to ensure that exciting new research developments make the news and raise the profile of the Centre – so make sure you get in touch with her when you have research you want CR-UK to help you promote.

Teachers and students are also a vital audience for the Centre, which has a clear commitment to holding events and activities that will inspire the next generation of cancer researchers. As part of this, Katie will continue to work with

colleagues in the CCRCB to deliver the annual teachers' and schools' days, which have already become key features in the CCRCB's events calendar.



Mrs Katie Scott

Katie joins us from Prostate Cancer UK where she led the charity's Policy and Campaigns team, leading campaigns for better follow up care for men with prostate cancer and routine access to abiraterone on the NHS for men in the later stages of the disease.

To contact Katie or find out more about her role email: [katie.scott@cancer.org.uk](mailto:katie.scott@cancer.org.uk) or call: 028 9097 2715.

## INFORMATION DAY ON GENE TECHNOLOGY FOR TEACHERS

Almost 40 AS and A-level Biology teachers from across Northern Ireland had the opportunity to become involved in the latest cancer research techniques at a special event at CCRCB on Friday 1 June 2012.

As well as hearing about the latest developments in gene technology – a key aspect of the AS and A-level Biology syllabus – they were able to watch CCRCB's researchers at work and, under their expert guidance, got the opportunity to extract DNA from cancer cells.

The event was organised by Cancer Research UK and Queen's University Belfast. Queen's is a key partner in the Belfast Cancer Research UK (CR-UK) Centre. It is one of 17 designated CR-UK Centres across the UK and the only one in Northern Ireland.

Both the Belfast CR-UK Centre and Queen's are committed to encouraging young people to pursue careers in cancer research and this is the second time that these two partners have come together to host this annual event for teachers. It is part of a series of schools events which see scientists at the



CCRCB Researchers and Teachers at the Information Day

CCRCB engaging students and teachers in cancer research, both in the Centre and out in the community.

During the day, Professor Dennis McCance gave a unique insight into the use of genetics in personalised medicine, and how scientists can identify genetic markers in a patient's blood to predict how that patient will respond to various treatments. Breakthroughs in this area of research are enabling doctors to plan more personalised treatment for cancer patients.

Teachers also heard how new DNA technology is helping unlock the secrets of the past and present. Professor

Patrick Morrison gave a presentation explaining how DNA from the skeleton of a 17th century giant was used to trace its present-day relatives, and how gene technology is used by forensic scientists to solve otherwise 'perfect' crimes.

The event was a great success and received positive feedback from the researchers and teachers who participated in it.

For more information about these schools events contact Katie Scott, CR-UK Research Engagement Manager via email [katie.scott@cancer.org.uk](mailto:katie.scott@cancer.org.uk) or telephone 028 9097 2715 / 07795 290 122.



# CANCER RESEARCH UK CENTRE LECTURE 2012

The Cancer Research UK Centre Lecture took place in CCRCB on 7 June 2012. The lecture was given by Dr Jason Carroll, Cambridge Research Institute, pictured (centre) with Professor Kevin Prise and Professor Dennis McCance.

The title of Dr Carroll's lecture was "Understanding Estrogen Receptor Transcription in Breast Cancer". His work described how the oestrogen receptor in breast cells is directed to various genes by a pioneer protein. Dr Carroll also talked about an exciting new method to elucidate proteins that bind to the oestrogen receptor and potentially control its function and so both areas of research open up new methods of inhibiting the transcriptional activity of the oestrogen receptor.

During his visit Dr Carroll met with several of the Principal Investigators in CCRCB and had an opportunity to talk to the Post-doctoral Research Fellows and Postgraduate Research Students about their research programmes.



L-R: Professor Kevin Prise, Dr Jason Carroll and Professor Dennis McCance

## LEADING CANCER SPECIALIST GETS TOP UK AWARD

One of the UK's leading medical researchers has been recognised for excellence in medical science. Professor Patrick Johnston, Dean of Medicine, Dentistry and Biomedical Sciences at Queen's University Belfast has been elected to the Fellowship of the Academy of Medical Sciences.

Professor Johnston has been honoured for outstanding contributions to the advancement of medical science and, in particular, his work on cancer research and treatment of patients.

Commenting on the prestigious accolade, Professor Johnston said: "I am delighted to have been elected a Fellow of the Academy of Medical Sciences. It is an honour and privilege to have had my contribution to medical science, in particular my contribution to cancer research and cancer patients recognised in this way."

Welcoming the announcement, Queen's University's Vice-Chancellor, Professor Sir Peter Gregson said: "This is a



Professor Patrick Johnston, Dean of Medicine, Dentistry and Biomedical Sciences at Queen's University Belfast

tremendous personal accolade for one of the UK's finest cancer researchers. Professor Johnston's award is further recognition of the outstanding work he is doing at Queen's University as he continues to build an internationally recognised School and Institute of Health Sciences that will have both a local and global impact.

The Academy's Fellows are the United Kingdom's leading medical scientists and are elected for outstanding contribution to the advancement of medical science, for innovative application of scientific knowledge or for their conspicuous service to healthcare. Professor Johnston was formally admitted to the Academy at a ceremony in London on Wednesday 27 June 2012.

# RACE FOR LIFE AND RELAY FOR LIFE 2012

A special thanks to Dr Julia Gorski who gave a speech to 4,000 women at this year's Cancer Research UK (CR-UK) Race for Life morning event. The two races, held in the Stormont Estate on 27 May 2012, are expected to raise over £320,000 for cancer research.

Jules and two CR-UK Research Nurses got up on stage to speak about the pioneering breast cancer research and clinical trials taking place at the Belfast Cancer Research UK Centre - and finished to huge applause from the race

participants and their supporters.

Also there to support the 5,000 plus women who took part in the two races that day were 10 other CCRCB scientists. They played a vital role talking to participants about cancer research in Belfast and thanking them for their support as they handed out medals at the finish line.

Race for Life is the UK's biggest fight against cancer and the largest women-only fundraising event in the UK.

Since Race for Life started in 1994, an incredible six million participants have raised over £457million, more than any other UK event series raising money to fund cancer research.

CCRCB PhD student Philip Burn also gave a fantastic speech at this year's CR-UK Relay for Life, attracting the attention of Mr David Simpson, MP for Upper Bann, who now wants to visit the Belfast CR-UK Centre to find out more about the cancer research taking place here.

## CCRCB SUMMER RESEARCH PROGRAMME 2012



*Programme Coordinator Dr Karen McCloskey and Professor Dennis McCance welcome Summer Research Students to CCRCB*

The CCRCB welcomed twenty one students from the UK, EU and the USA to our Summer Research Programme 2012 on Monday 2 July 2012.

Following on from last year's successful programme, our current cohort of students come from a diverse range of backgrounds including biomedical science, medicine, biochemistry and computational biology. In addition, school pupils who are between years 13 and 14 from Northern Ireland schools have been awarded Nuffield Foundation bursaries to undertake internships in the Centre.

Students have been assigned to projects within the Centre's focus groups

which encompass haematological malignancies; breast, gastrointestinal and genitourinary cancers; radiation biology and bioinformatics. While participating in original research as part of a dynamic group, students acquire practical laboratory techniques, gain knowledge of data analysis and interpretation and obtain first-hand experience of an academic research environment.

At the end of the programme, all summer students will present their work to the CCRCB at a poster presentation symposium and will prepare a report for their academic and laboratory supervisors. Participation in summer research enables students to make

informed career choices in addition to enhancing their personal and technical skills portfolios.

Networking among the summer students is facilitated by the Induction Programme which includes a welcome lunch in CCRCB in addition to a school-wide social event and reception.

Funding for this year's Summer Research Programme has been granted from the CCRCB, the School of Medicine, Dentistry and Biomedical Sciences, NI Leukaemia Research Fund and the Nuffield Foundation.



# CCRCB PHOTO GALLERY



A group of CCRCB scientists once again successfully took on the task of inspiring primary and secondary school students to pursue a career in cancer research at the Sentinus Young Innovators event. The event, held at the Odyssey, was attended by 2,500 children aged between 9 and 19. Over 120 children got their hands sticky at the Cancer Research UK stand – learning about DNA by building a jelly baby double helix and extracting DNA from strawberries.



L-R: Professor Ken Mills (CCRCB), Mr Jim Bolger (Former Prime Minister of New Zealand and Chancellor, University of Waikato, New Zealand), Professor Kevin Prise (CCRCB), Professor Patrick Johnston (Dean, School of Medicine, Dentistry and Biomedical Sciences, Queen's University Belfast) and Professor Roy Crawford (Vice-Chancellor, University of Waikato, New Zealand) at the Centre for Cancer Research and Cell Biology



Congratulations to the winners of the annual CCRCB Student Postgraduate Symposiums: Mr Chris Armstrong (First Year), Ms Gemma Logan (Second Year) and Ms Ann-Christin Cichon (Third Year) pictured with Dr Karen McCloskey, CCRCB Associate Director for Postgraduate Studies

## RECENT GRANTS AWARDED

Investigator(s)	Sponsor	Title	Amount	Start Date	End Date
Campbell, Charles Wilson, Richard Emmert-Streib, Frank Loughrey, Maurice	CR-UK	Vitamin D Regulation of Growth Control Biomarkers in Human Colon and Colorectal Cancer (CRC)	£242,469	01/10/12	30/09/15
McCloskey, Karen	Transfer of Research Project from Professor Clare Fowler CBE (UCL)	The mechanism of action of botulinum toxin in the treatment of the overactive bladder	£20,000	01/06/12	31/12/12
O'Brien, Niamh	Breast Cancer Campaign	Identification of a subgroup of breast cancers with combined BRCA1 dysfunction/NFkB hyperactivity and the development of novel therapeutic strategy	£546,352	01/02/13	31/01/18
Prise, Kevin Schettino, Giuseppe	UK Department of Health, Policy Research Programme on Radiation Protection Research	A spatial study of the mechanisms of low dose carcinogenesis using targeted irradiation	£386,000	01/12/12	30/11/15
Prise, Kevin Held, Kathryn (MGH, Boston)	MGH Federal Share Proton Beam Program Income	Spatial and Temporal Dependence of Intercellular Communication Stimulated by Passive and Actively Scanned Proton Beams with Conventional and Hypofractionated Regimens	\$200,000	01/01/12	31/12/12
Williams, Rich	Invest NI	The development of small molecule legumain inhibitors for the treatment of poor prognosis cancers	£94,367	01/04/12	30/09/12
Williamson, Kate	Randox	Haematuria Biomarker Study (Post Doctoral Fellow)	£17,665	01/07/12	30/11/12
Williamson, Kate	Randox	Haematuria Biomarker Study (Technician)	£77,787	01/08/12	31/07/15
Waugh, David	Medical Research Council	The central importance of CXCL8 signalling to inflammatory-based tumour initiator and invasive prostate carcinoma	£652,060	01/04/12	31/03/16
Waugh, David Salto-Tellez, Manuel	Friends of the Cancer Centre	Discovery and clinical characterization of predictive biomarkers of response to treatment in aggressive prostate cancer (PhD Stipend)	£48,000	01/10/12	30/09/15

# NORTHERN IRELAND BIOBANK: MOVING AHEAD

Phase 1 of the Northern Ireland Biobank (NIB) is well underway with the prospective collection of tumour tissue and associated biosamples. With the support of local pathologists and clinicians, collection has opened so far in colorectal, breast and genitourinary tumour groups, accruing over 1300 samples of fresh and FFPE tumour and non-tumour control tissue, matched bloods and urine from over 100 consented patients. As part of the

ongoing strategy to open collection within the remaining tumour groups, links have been recently established with clinicians and pathologists from gynaecological and head and neck specialities in Belfast Trust with the aim of having collection open in all tumour groups by the end of 2012.

The NIB has also developed and maintained close links with Northern Ireland Cancer Research Consumer

Forum to ensure a level of public and service user engagement in the NIB. At the most recent meeting of the Forum in June, the NIB were invited to give an update on progress to date which was received with a high level of interest from members and offered positive feedback about the activity of the NIB so far.

For further information on the NIB please visit [www.nibiobank.org](http://www.nibiobank.org)



Northern Ireland Biobank Team

## THE HAEMATURIA BIOMARKER STUDY

The Haematuria Biomarker (HaBio) study is an official ECMC study involving academia, industry, clinicians and research nurses from the Northern Ireland Cancer Trials Centre (NICTC). Recruitment by Ms Rachel Smyth and Ms Karenjit McCloy (NICTC), ably helped by Ms Gail Carson (HaBio technician), will commence in September 2012. HaBio was designed by Dr Kate Williamson from CCRCB in close collaboration with Mr Brian Duggan, Mr Hugh O'Kane, Mr Funso Abogunrin (Department of Urology, Belfast Trust) and Ms Ruth

Boyd (NICTC). Randox Laboratories are funding the study.

The HaBio team have extensively researched the 135 clinical features that will be recorded and the 40 biomarkers that will be analysed for each of the 1000 patients. Senior scientists from Randox, Dr Cherith Reid and Dr Mark Ruddock, will analyse the 40 biomarkers using Randox's established Biochip Array Technology, in-house assays or commercially available assays. Comprehensive audit of all data will

be overseen by the newly appointed Clinical Trials Administrator, Ms Julie Hunter.

Mr Michael Stevenson, Dr Frank Emmert-Streib and Dr Ricardo de Matos Simoes, will supervise statistical analyses to identify diagnostic biochips for bladder cancer using collectives of biomarkers. In addition, further analyses will identify protein interactions key to bladder cancer carcinogenesis that will be further investigated in the laboratory and using tumour tissue microarrays.



# RECENT PUBLICATIONS

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## EVENTS 2012

### EACR/IACR Special Conference: The Tumour Microenvironment

17–19 September 2012

The Burlington Hotel, Dublin

For further information and registration  
please refer to: [www.eacr.org](http://www.eacr.org)

### 37th European Symposium on Hormones and Cell Regulation European Society for Endocrinology

11–14 October 2012

Mont Ste Odile, France

For further information and registration  
please refer to:

[www.hormones-cell-regulation.eu/](http://www.hormones-cell-regulation.eu/)

### Cancer Research UK Cambridge Research Institute Annual International Symposium: "Unanswered Questions in Cancer Sequencing"

2–3 November 2012

Cancer Research UK Cambridge Research  
Institute, Cambridge, UK

For further information and registration  
please refer to: [www.cambridgecancer.org.uk/seminars-conferences/crj-symposium/](http://www.cambridgecancer.org.uk/seminars-conferences/crj-symposium/)

## CCRCB EVENTS

### Summer School in Computational Biology

15–19 September 2012

Health Sciences Building, Queen's  
University Belfast

For further information and registration  
please refer to:

[www.bio-complexity.com/QUBsscb/QUBsscb.html](http://www.bio-complexity.com/QUBsscb/QUBsscb.html)

### Quantitative Biology and Bioinformatics in Modern Medicine

20–21 September 2012

Riddel Hall, Queen's University Belfast

For further information please contact:

Sinead Cassidy (Conference Secretariat):  
[quantbio@qub.ac.uk](mailto:quantbio@qub.ac.uk)

### Mitchell Lecture 2012

18 October 2012

CCRCB Building

Dr Edison Liu

Director, Jackson Laboratory in Bar  
Harbor, Maine

## NEW APPOINTMENTS

Welcome to the following new staff who have recently joined the Centre:

### Clerical Staff:

Mrs Ruth Beattie

Dr Gerry Hanna

Dr Iain James

### Clinical Research Fellows:

Dr Eileen Parkes

### Research Staff:

Dr Pankaj Chaudhary

### Honorary Staff:

Dr Glenn Dickson

Dr Brian Duggan

Professor Dean Fennell

### Visiting Researchers:

Mr Thomas Marshall

## MEASURES OF ESTEEM

Congratulations to Dr Karl Butterworth who has been elected Vice-chair of the Scholars in Training Committee of the US Radiation Research Society and will serve as Chair from 2013. This is a highly prestigious position with the world's premier radiation research society.

Congratulations to Professor Kevin Prise, Dr Alan Hounsell and Professor Joe O'Sullivan who have all been reappointed to serve a further two year term of office on the Clinical and Translational Radiotherapy work groups of the National Cancer Research Institute.

## PRIZES/AWARDS

Fabio Liberante was awarded a €500 Travel Bursary and complimentary registration from the European Haematology Association on 23 April 2012 to attend their annual meeting in Amsterdam on 14–17 June 2012 as one of the best scoring abstracts by an early stage investigator.

Dr Lisa Crawford was awarded a Travel Award from the British Society for Haematology to allow her to present her work at the Keystone Symposium on Ubiquitin Signalling, Whistler, USA in March 2012. Lisa was also awarded a £6,750 British Society for Haematology Early-Stage Research Start-Up Grant in May 2012.

Dr Kienan Savage was awarded a Cancer Focus Northern Ireland Fellowship of £400,000 (4 years).

Dr Niamh O'Brien was awarded a Breast Cancer Campaign Fellowship of £546,352 (5 years).

Conor Hanna, Laura Taggart, Colman Trainor, Malgorzata Bill and Karl Butterworth have all been awarded Scientists in Training Awards to attend and present their work at the annual meeting of the US Radiation Research Society being held in Puerto Rico in September 2012.

Comments on the CCRCB Bulletin or suggestions for future editions should be forwarded to Margaret-Rose Mervyn: [m.mervyn@qub.ac.uk](mailto:m.mervyn@qub.ac.uk)



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