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MOVEMBER RETURNS TO CCRCB



The CCRCB Mo team

Staff and students at the CCRCB geared up for another year of moustache growing, fundraising and increasing awareness of men's health issues, as Movember returned to the Centre for 2014. This year was bigger and better than before, with a larger team and more events and activities planned throughout the month.

Over the last 10 years, the Movember campaign has grown from 30 men in Melbourne, Australia to a global movement in which more than 4 million Mo Bros have participated, raising over £346 million. The annual moustache growing event promotes discussion and awareness of men's mental health, testicular cancer and prostate cancer

and supports worldwide charities tackling these issues. In the UK, the campaign funds programmes in partnership with ICR, the Movember Foundation, ICHOM and Prostate Cancer UK.

Since the 2013 campaign, the CCRCB has become a Movember Centre of Excellence in partnership with researchers and clinicians at the University of Manchester. The primary focus of this partnership will be on recurrent prostate cancer, improving methods of detection and personalised treatment. Additionally, research into refining and improving radiotherapy will be conducted with the aim of preventing recurrence.

The 2014 CCRCB Movember campaign has been the biggest and best so far, as more than 30 members signed up to the team - including Mo Sistas (a woman who loves a Mo) for the first time. Mo Sistas joined in the fun and showed their support to their fellow Mo Bros on Fake Moustache Fridays. There were plenty of opportunities for everyone to get involved throughout the month, with a lecture, a quiz and a party (including an awards ceremony).

NEW PCUK PROJECT OFFICER

Paula Langham joined us in November as the Project Officer for the Movember Centre for Excellence.

As Project Officer, Paula's role is to lead the successful planning and coordination of activities to ensure that this joint programme of research between the Centre for Cancer Research and Cell Biology and the University of Manchester is completed successfully within the agreed timeframe and budget constraints and to assist the team in securing further funding of the programme.

Before joining us, Paula was the Finance and Office Manager of Children in Northern Ireland (CiNI) with sole responsibility for managing all aspects of the finance function of CiNI as well as overseeing the management and general running of the office. Prior to that she was the Assistant Accountant of the East Belfast Partnership where she worked alongside the Company Accountant to manage the various funding streams allocated to the projects to ensure full accountability and value for money was always achieved.

To contact Paula or to find out more about her role please email: p.langham@qub.ac.uk or call 028 90975702.



Paula Langham, PCUK Project Officer

NEW GENE FOR BREAST CANCER HIGHLIGHTED AT MAJOR INTERNATIONAL GENETICS CONFERENCE IN BELFAST



HGV2014 Conference Co-Chairs Dr Stephen Chanock (National Cancer Institute Washington USA) and Professor Mark Lawler (CCRCB)

In a major coup for Northern Ireland, Belfast hosted the 15th International Conference on Human Genome Variation and Complex Genome Analysis (HGV2014) from 17–19 September 2014, only the second time that this Conference has taken place in the United Kingdom. HGV2014 is a significant event on the genetics calendar and this event places Queen's University Belfast firmly on the international genetics map.

"It was extremely exciting to bring this major conference to Belfast" said Professor Mark Lawler, Chair of Translational Cancer Genomics at CCRCB and co-chair of the HGV2014 Organising Committee. "It not only allowed Northern Ireland scientists to hear from the cream of the international genetics community; it also provided tangible opportunities for QUB to establish and expand significant international partnerships and both contribute to and lead major initiatives in this area."

Highlights of the Conference included Dr Will Foulkes (McGill University, Montreal, Canada) and Professor Nazneen Rahman (Institute of Cancer Research, London) who presented exciting results about a new gene called PALB2 which has been shown to significantly increase the risk of developing breast cancer in a recent landmark paper in the *New England Journal of Medicine*.

As well as speaking at HGV2014, breast and ovarian cancer expert Dr Foulkes also visited the Centre for Cancer Research and Cell Biology (CCRCB) at Queen's. "Dr Foulkes's visit was an excellent opportunity to develop a quality collaboration with a major international researcher in breast/ovarian cancer," said Dr Kieran Savage, Cancer Focus Northern Ireland Lecturer in CCRCB. "Cancer research is international and we look forward to an exciting partnership going forward," he added. "Breast cancer is one of the key diseases where we fund research, so it is very exciting to hear about new breakthroughs and the potential for research collaborations with Cancer Focus Northern Ireland funded researchers," said Roisin Foster, Chief Executive Officer of Cancer Focus Northern Ireland.

Dr Stephen Chanock (National Cancer Institute, Washington DC USA) was co-chair of the HGV2014 Organising Committee. "It was in 1999 when I came to Belfast for the signing of the Ireland – Northern Ireland – National Cancer Institute Memorandum of Understanding. Fifteen years on, the progress that has been made here is remarkable, with an international renowned cancer research centre and a state of the art Northern Ireland cancer treatment centre leading to significant improvements in outcomes for cancer patients."

Welcoming the Conference to Belfast, Professor Stuart Elborn, Head of the School of Medicine, Dentistry and Biomedical Sciences at Queen's said: "Genetics is at the heart of many of our School's research programmes in respiratory disease, cancer, diabetes and renal disease. This conference provided the opportunity for us to showcase the talent we have here in Northern Ireland and also underpinned the opportunity for developing meaningful partnerships with international opinion leaders."

Emphasising our local talent and ability to compete internationally, Dr Darragh McArt (CCRCB) won best poster prize for his work on "PICan: An integromics framework for dynamic cancer biomarker discovery."

"Bringing an event like this to Belfast benefitted not just the scientific and medical community, but also contributed to the Northern Ireland economy," said Arlene Foster, Minister for Enterprise, Trade and Investment. "Attracting international conferences such as HGV2014 to Northern Ireland and the continuing collaboration between Visit Belfast and Queen's University emphasises our commitment to establishing Belfast as a major international conference venue," she added.

BLOOD CANCER AWARENESS MONTH – SEPTEMBER 2014

Leukaemia & Lymphoma NI painted Belfast red during September as they introduced Blood Cancer Awareness Month to Northern Ireland for the first time. In support of the initiative, a number of local landmark buildings were lit up red on Wednesday 10 September 2014, including Belfast City Hall, the Great Hall at Stormont, Victoria Square's iconic dome and Queen's University Students' Union.

On average, three people are diagnosed with a blood cancer in Northern Ireland every day. Blood Cancer Awareness Month highlights the important research being conducted to find new treatments for blood cancers such as leukaemia and lymphoma. The first NI Blood Cancer Awareness Month was launched at an event in the MAC in Belfast's Cathedral Quarter. Former Health Minister Edwin Poots, MLAs and media personalities attended the launch, alongside Leukaemia & Lymphoma NI supporters, blood cancer survivors and families of people who have been affected by the disease.



Leukaemia & Lymphoma NI Chairman Bill Pollock, Professor Ken Mills, Caroline Crothers and Professor Jim Dornan at the launch

Leukaemia & Lymphoma NI's new Patron, Professor Jim Dornan, said: "I am a big supporter of research charities and especially Leukaemia & Lymphoma NI, which conducts such vital work on blood cancers right here in Northern Ireland. Research has enabled a large

percentage of people to live with a manageable cancer rather than die with it and it is hugely vital that charities such as Leukaemia & Lymphoma NI are able to continue to fund scientists to research potential cures and treatments."

JOINT QUB-VANDERBILT MOLECULAR CANCER EPIDEMIOLOGY SYMPOSIUM



Dr Helen Coleman (CPH), Dr Martha Shrubsole, Dr Natasha Deane, Professor Wei Zheng (Vanderbilt University) and Professor Liam Murray (CPH)

In October, the Cancer Epidemiology and Health Services Research group at CPH welcomed three visitors from Vanderbilt University, Tennessee, as part of an ongoing International Engagement in Cancer Epidemiology between the two

centres. The central focus of the visit was a Joint QUB-Vanderbilt Molecular Cancer Epidemiology Symposium.

The symposium was jointly hosted by Professor Liam Murray and Dr Helen

Coleman in CPH, and Professor David Waugh from the Centre for Cancer Research and Cell Biology at QUB.

Professor Wei Zheng, Dr Martha Shrubsole and Dr Natasha Deane from Vanderbilt gave insightful presentations into this exciting and growing field of research at the symposium, which was attended by more than 60 delegates.

The symposium also benefitted from presentations from several researchers in Queen's University Belfast, the University of Bristol and Trinity College Dublin. The successful event was rounded off by a grant-writing workshop the following day, which was hosted by Drs Anne Helme and Lucy Davies from Cancer Research UK, and included a presentation from Professor Zheng on US National Institutes of Health grant funding applications.

This exciting collaboration is kindly funded by Queen's University Belfast International Engagement Fund.

'SCIENCE BUSKING' AT CULTURE NIGHT BELFAST

Seven CCRCB researchers volunteered to do a bit of 'science busking' at Culture Night Belfast on 19 September 2014. As the event name suggests, this is an arts-themed evening, with over 40,000 people converging on Belfast city centre for a wide range of free events and activities.

The CCRCB was invited to participate in a new 'science in the square' part of this event which took place in Writer's

Square. Complete with CRUK lab coats and busking trays, the seven intrepid researchers ventured out into the square to talk to the public about their work. They offered two activities to get people interested – a genetic taste test and a modified version of strawberry DNA – and then were able to tell people about their research and the work that happens in the CCRCB. Working in pairs, they engaged with over 500 people across all

ages. This was a great result and brought information about cancer research in Belfast to an entirely new audience.

The researchers who volunteered their time to 'busk' on a Friday night at this event were Phil Burn, Kirsty McLaughlin, Sharon Eddie, Caroline Hughes, Daniela Schmid, Zsuzsanna Nemeth and Basak Celtikci.



Daniela Schmid and Caroline Hughes



Phil Burn and Kirsty McLaughlin

CCRCB STANDS UP 2 CANCER WITH CAKE AND A QUIZ



Best overall cake made by Cathy Fenning and Jane McClements

CCRCB staff were their usual creative and generous selves in supporting StandUp2Cancer this year. This annual fundraising appeal was once again on Channel 4 and raised over £14.5million for translational research funded by Cancer Research UK.

Here in the CCRCB we started off the festivities with the #sciencecakes competition. There were four extraordinary entries – all of whom were given awards on the day. Best tasting cake was 'Radiation is Good for You' baked by Mihaela Ghita and Gaurang Patel. There was a tie for best interpretation of science between Phil Burn with his 'Personalised Medicakes' and the 'Bladder Cancer and Clinical Trials' cake by Sabine Dalleau.

The Best Overall Cake entry was submitted by Cathy Fenning and Jane McClements. It was titled 'It's Payback Time' and showed the work of the 3rd floor lab in looking at the genetic pathways of bowel cancer – complete with special researcher figures! This entry went on to represent Belfast in the two #sciencecakes national competitions. Cathy and Jane received an Honourable Mention in the CRUK competition for 'Best Interpretation of Science through the Medium of Cake', and also came in third place in the public vote on Twitter. Congratulations to them!

Margaret Carr also held a quiz (with no science questions!), and between the two events over £200 was raised for StandUp2Cancer.

CHAIR OF HEALTH COMMITTEE PRAISES CCRCB DEDICATION AND VISION



Dr Dan Longley, Dr Sandra van Schaeybroeck, Professor Mark Lawler and Maeve McLaughlin MLA (Chair of Health Committee)

The Northern Ireland Assembly Health Committee visited the Centre for Cancer Research and Cell Biology (CCRCB) on the joint invitation of Cancer Research UK (CRUK) and CCRCB. They received a series of presentations from CCRCB staff and invited guests. Professor Manuel Salto-Tellez highlighted the world class research that was being undertaken in CCRCB and its vision for the integration

of cancer research and cancer care in Northern Ireland. Dr Richard Wilson indicated the crucial work that the Northern Ireland Cancer Centre is doing that has led to significant improvements in patient outcomes over the last 15 years and also emphasised the critical importance of cancer clinical trials. Ms Margaret Carr briefed the Committee on CRUK and its role in research in

Northern Ireland while Professor Mark Lawler highlighted QUB's leadership in addressing cancer inequalities in Europe. CRUK Campaigns Ambassador Ms Sharon Dempsey also presented the patient's perspective on cancer and cancer research which was warmly received by the Committee. Members of the Committee then took a series of tours on the different floors of CCRCB including a visit to the Northern Ireland Molecular Pathology Laboratory and spent much time interacting with students and staff. The Committee were deeply impressed by the breadth of research, the clear vision and the unbridled enthusiasm of CCRCB staff and students. "On behalf of the Health Committee, I would like to praise the excellent work that is being done here in the Centre for Cancer Research and Cell Biology that is making a real difference to people's lives," said Maeve McLaughlin MLA, Chair of the Health Committee. "The vision of the Centre and the dedication and enthusiasm of its staff are leading to major breakthroughs that will benefit our patients," she added.

QUB SCIENTIST HIGHLIGHTS HOW GENETIC "TREASURE TROVE" CAN IMPROVE CANCER CARE

Generating "big data" from discovery science and linking it to clinical information is leading to significant advances in human health. Speaking at the 2nd Conference of the Global Alliance for Genomics and Health (GA4GH) on Sunday 19 October 2014 which took place during the 64th Annual Meeting of the American Society of Human Genetics in San Diego, Professor Mark Lawler, Chair in Translational Cancer Genomics, Centre for Cancer Research and Cell Biology, Queens University Belfast, highlighted how data sharing initiatives in cancer are breaking down the "silo" mentality and releasing a "genetic treasure trove" that can contribute to improved cancer outcomes. "GA4GH is an extremely exciting and transformative initiative that has the potential to revolutionise how we use genetic and clinical information and information technology to deliver benefit to patients with a wide range of diseases," said Professor Lawler who is a member of the Clinical Working Group of GA4GH. "In the area of cancer, GA4GH is acting as a type of honest broker

to maximize the potential of genetics and data analytics to define what we would call the "actionable genome", a catalogue of the key genetic changes in cancer that can be targeted by novel drugs through a precision or personalized medicine approach," he added.

Experts from around the world convened in San Diego to discuss how best to work together and employ the massive genetic and clinical datasets that are being generated to catalyse new approaches that deliver real added-value benefit for patients and society. QUB is a founder member of GA4GH, which now numbers some 220+ Global Alliances from over 30 countries. "We are proud to be a founding member of this unique alliance and to be making a significant contribution as it gains global recognition," said Professor Patrick Johnston, President and Vice Chancellor, QUB. "Strategically, it aligns with two of our key strengths, cancer research and data analytics and has the potential to transform the global health landscape," he added.

Among the exciting European-led initiatives that Professor Lawler highlighted at the Conference was Cancer Core Europe, a visionary approach to create virtual e-Cancer Hospitals, where responsible data sharing between different centres can maximise success in diagnosing and treating this common deadly disease and SPECTA, an EORTC (European Organisation for the Research and Treatment of Cancer) led project that uses our knowledge of the genetics of cancer cells to drive innovative pan European clinical trials. "Collaborating with pan European organisations such as the EORTC and global initiatives such as GA4GH emphasise the international standing of our research efforts and allow both scientists and ultimately patients to benefit from these added-value partnerships," said Professor David Waugh, Director, Centre for Cancer Research and Cell Biology, QUB.



BRAIN TUMOUR INFORMATION EVENING

As part of its Information and Support services, Brainwaves NI hosted another successful 'Information Evening' at the Centre for Cancer Research and Cell Biology (CCRCB) on 10 September 2014. This event provided an overview of the rehabilitation services and support available to patients and carers to best manage their care at the point of diagnosis, across the local hospitals and in the community.

Delegates were also provided with excellent contributions on the occupational therapy and physiotherapy

services available, the complementary therapy and psychological support available and strategies with practical advice to best deal with specific issues such as epilepsy and fatigue.

The Information Evening was hosted in partnership with the recently established NICaN Brain & CNS Group, the Chair and Clinical Lead of which is Dr Jackie Harney. This Group is the principal source of advice responsible for the further development of services for those affected by a brain tumour.

Following the event, delegates had the opportunity to informally meet over a light supper. If you would like any further information or contact details on services and support available, or on the programme of brain tumour research that Brainwaves NI is supporting at CCRCB, please call 028 9335 3995 or email info@brainwaves-ni.org.



STAFF TAKE A BITE OF QUEEN'S



University staff on a visit to CCRCB as part of 'A Bite of Queen's'

A Bite of Queen's campus tours give staff the opportunity to go behind the scenes of some of the University's buildings and to find out about the work that goes on in them. To coincide with October's Breast Cancer Awareness Month and then Movember, staff from across Queen's University got the opportunity to find out about cancer research taking

place at the University during two recent A Bite of Queen's tours of the Centre for Cancer Research and Cell Biology.

During the tours of the laboratories staff heard about the work of the Breast Cancer Research group from Dr Julia Miskelly and for the Movember tour Professor Joe O'Sullivan and Dr Pamela

Maxwell talked about the work of the Prostate Cancer Research group. On both occasions Dr Stephen McQuaid also gave staff a tour of the Northern Ireland Molecular Pathology Laboratory which is located in the Basement of the CCRCB building.

LOCAL SCHOOL VISITS CCRCB

Staff and pupils of Lismore Comprehensive School in Craigavon visited CCRCB on Monday 24 November 2014 to hand over a donation of £715. Staff and pupils listened to a short talk from Professor David Waugh, before having a tour of the laboratories. Pictured are: Mrs Fiona Kane (Principal), Chloe Hart, Professor David Waugh, Caitlin Ganley, Conor Farrell and Mrs Paddy McConnell.



QUEEN'S RESEARCHER LEADS DRIVE TO PERSONALISE TREATMENT FOR EUROPEAN PATIENTS



Jim Nicholson (Northern Ireland Member of the European Parliament) and Professor Mark Lawler (CCRCB) at the launch of the "Roadmap for Personalised Medicine in Europe" in Brussels

A QUB led initiative involving patients, doctors, scientists and the pharmaceutical/biotech industry has the potential to radically improve how we translate research discoveries into real benefit for European patients. On 10 September 2014 in Brussels, Professor Mark Lawler, Chair in Translational Cancer Genomics at the Centre of Cancer Research and Cell Biology (CCRCB) in Queen's launched a **Roadmap for Personalised Medicine in Europe**.

In many diseases, we have tended to use a "one size fits all" approach and given every patient the same treatment, yet a significant proportion of patients don't respond to this treatment and can develop serious side effects. The reason for this is now becoming clear. Understanding the genetics of disease, say for example bowel cancer, has made us realise that all bowel cancers are not the same and therefore a "one size fits all" approach cannot work for all patients. New technologies allow us to take "a genetic snapshot" of our cells and this indicates that bowel cancer may be as many as 6 or 7 different diseases. This information allows us to "personalise" the treatment for each of those bowel cancer patient subgroups.

"This Personalised Medicine approach holds great promise and has already shown benefit in many diseases including cancer, heart disease, diabetes and respiratory disease but the real challenge is how to make sure that it becomes part of the standard of care for Europe's citizens – today we provide a blueprint of how this can be achieved and call on the Members of the European Parliament (MEPs) here today and to national health ministers to embed personalised medicine into health systems throughout Europe," said Professor Lawler. "Getting the right treatment to the right patient at the right time can greatly improve our chances in the fight against deadly diseases such as cancer," he added.

Commenting on the initiative, Professor Patrick Johnston, Vice Chancellor and President of QUB said: "The launch of this Personalised Medicine Roadmap demonstrates how QUB scientists like Professor Lawler can take a leadership role in European healthcare and contribute significantly to Queen's vision to address international challenges and focus on the needs of society."

Professor Lawler is Chair of the Research Policy Subgroup of the European

Alliance for Personalised Medicine (EAPM, <http://www.euapm.eu/>), a pan European body involving health care professionals, patients and patient advocacy groups, scientists, industry leaders and European healthcare and scientific associations and has led this initiative which was launched as part of an EU Presidency Conference in Brussels (<http://www.supportbase.eu.com/eapm/programme.html>).

Commenting on the launch, Mr Jim Nicholson Northern Ireland MEP and Chair of the session in which Professor Lawler spoke said: "Personalised Medicine gives hope for all our patients. I am proud to be chairing a session where a Northern Irish scientist is leading such a worthwhile initiative."

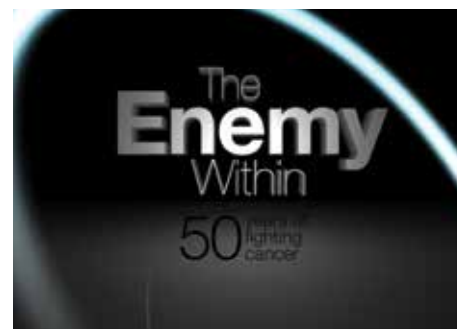
A personalised medicine approach allows innovative science to be translated into new diagnostics and treatments. "Genetics and personalised medicine are at the heart of much of the research we perform here in the CCRCB," said Professor David Waugh, CCRCB Director. "This QUB led initiative creates a pathway to bring our best scientific discoveries to the clinic for the benefit of our patients and can lead to a new model of healthcare for Northern Ireland," he added.

Personalised medicine also has significant implications for the growing Northern Ireland biotech industry. "We welcome this QUB led initiative," said Professor Paul Harkin, President and Managing Director, Almac Diagnostics. "Personalised medicine has the potential to revolutionise medical diagnostics and contribute significantly to the growth of this sector in Northern Ireland and we at Almac Diagnostics are working closely with CCRCB researchers to realise this vision," he added.

CCRCB AND CRUK HOST FILM SCREENING

The CCRCB Engagement Committee and Cancer Research UK sponsored a screening of *The Enemy Within* at the QFT on 15 October. This documentary, produced and narrated by Vivienne Parry OBE, provides a history of the last 50 years of fighting cancer, and outlines some of the challenges for the future.

Following the screening there was an expert panel discussion with Professors David Waugh, Richard Kennedy, Joe O'Sullivan and Mary Frances McMullin. The audience engaged actively with the panel after the film, and asked many questions ranging from cancer prevention to clinical trials. All panellists stressed the importance of research and clinical trials, and the positive impact that good research can have on clinical outcomes.



PRIZES AND MEASURES OF ESTEEM

Congratulations to **Professor Manuel Salto-Tellez**, who has been made a Fellow of the Royal College of Physicians of Ireland (RCPI).

Professor Kevin Prise has been appointed to the CERN Medical Applications International Strategy Committee.

Professor Patrick Morrison has been promoted to Series Editor of The Oncologist.

Dr Kyle Matchett has been selected to sit on the Junior Irish Association for Cancer Research (IACR) Council, representing Queen's University Belfast.

Dr Michael Moran was awarded with the medal for best scientific presentation at the 2014 annual meeting of the Irish Otolaryngology - Head and Neck Surgery Society, which took place on 10-11 October 2014.



Professor Manuel Salto-Tellez, Fellow of the Royal College of Physicians in Ireland



Dr Michael Moran is awarded the medal for best scientific presentation by Mr Joseph Toner, President of the Irish Otolaryngology - Head and Neck Surgery Society

STUDENT POSTER COMPETITION WINNER ONE OF TEN QUEEN'S SCHOLARS

Daryl Hinchcliffe, winner of the CCRCB/ Nikon prize in last year's Student Poster Competition, has been announced as one of ten recipients of a Queen's Scholarship. Daryl's artwork so captivated the staff in the CCRCB that it now hangs in the building foyer.

This scholarship is one of the most prestigious awards from any UK university, entitling the recipients to a completely free undergraduate education. Daryl, a student at Glenlola Collegiate School in Bangor, says she "can't wait to start at Queens" and is looking forward to studying chemistry but also continuing to work on her art. Who knows – we might see her back in the CCRCB someday!

The QUB/CRUK student competition this year asks students to submit a 2 minute video on one area of research in the CCRCB. Semi-finalists will be invited to spend a day in the labs on World Cancer Day, 4 February 2015.



Daryl Hinchcliffe with Gareth Meenagh (Nikon) and Dr Karen McCloskey

CCRCB HONOURS PROJECT STUDENT WINS PRESTIGIOUS UNDERGRADUATE AWARD

Magherafelt student Grace McKenna, who undertook her final year Honours project in CCRCB, has been named as the international winner of a prestigious Undergraduate Award. The Undergraduate Awards, which are now in their fourth year, aim to give recognition to the brightest and most innovative undergraduate students in the world, and those who are leading creative thinkers, problem solvers and future leaders. The winners were selected from nearly 5000 submissions from over 200 universities worldwide.

Grace, who undertook her Honours project in Professor Richard Kennedy's laboratory, won the Undergraduate Award in the Medical Sciences Category for her paper entitled 'Identification of Tumour Suppressor

Genes whose loss mediates sensitivity to conventional chemotherapy and targeted therapeutics'. Grace joined the other award winners in attending the Undergraduate Awards Global Summit, which took place from 19–21 November 2014 in Dublin.

Louise Hodgson, Executive Director of the Undergraduate Awards, said: "The Undergraduate Awards is the only pan-discipline academic awards programme in the world. The Awards recognise the best and brightest students and brings them together to encourage interdisciplinary cooperation that transcends borders, advances scholarship, and promotes new academic thinking. I wholeheartedly congratulate all of the winners."



Grace McKenna

ROCHE PRIZE WINNER 2014



Professor Mark Lawler and Julie McAlinden (Roche representative) present the Roche Prize to Dr Zenobia D'Costa

Congratulations to Dr Zenobia D'Costa who has been awarded the Roche Prize for 2014. Dr D'Costa, who is a post doctoral research fellow in Dr Paul Mullan's research group, was presented with a medal and cheque for £400 at the Centre for Cancer Research and Cell

Biology on 10 November 2014. Her winning presentation was entitled 'TBX2 represses CST6 resulting in uncontrolled legumain activity to sustain breast cancer proliferation: a novel cancer-selective target pathway with therapeutic opportunities.'

The Roche Researcher of the Year Award was launched by Roche Diagnostics Ireland, to highlight and support excellence in life science research within the academic centres of Ireland, both in the Republic and Northern Ireland.

ACADEMIC STAFF APPOINTMENTS

Karl Butterworth - Lecturer in Translational Radiation Biology



Dr Karl Butterworth was appointed as a lecturer in CCRCB in September 2014. Prior to taking up this post, Dr Butterworth was a key member of the multidisciplinary Advanced Radiotherapy Group where he carried out his postdoctoral research in the laboratory of Professor Kevin Prise. During this time he developed interests

in preclinical radiobiology, in particular the role in radiation induced signalling effects in tumour and normal tissue responses, whilst maintaining his interests in nanomedicine. He has spent time as a visiting scientist at several international radiobiology laboratories including Massachusetts General Hospital, Boston and the Italian

National Agency for New Technologies (ENEA), Rome. His research aims to improve radiotherapy outcomes by understanding the biology of advanced radiotherapy using in vivo models, combining radiation with novel targeted agents, and improving radiological imaging using nanoparticle based platforms.

Emma Evergren - Lecturer in Molecular Pharmacology and Cell Signalling



Dr Emma Evergren was appointed to the post of Lecturer in Molecular Pharmacology and Cell Signalling and joined the Centre in December 2014. She obtained a Masters degree in Chemistry with a focus on biomedicine and pharmacology from University of Kalmar, Sweden in 2000. She then moved to Stockholm for her PhD at the Department of Neuroscience at the Karolinska Institute. Her work focused on the molecular mechanisms of clathrin-mediated endocytosis and synaptic vesicle recycling. She used the lamprey giant reticulospinal synapse as a model system in combination with electron microscopy. This led to the discovery that intersectin regulates dynamin activity and the release of clathrin-coated vesicles from the endocytic zone flanking the synaptic release site.

She did a short postdoc at the Karolinska institute where she collaborated with Professor Jonas Frisén to study the localisation and differentiation sites for neural stem cells in the brain and spinal cord following stroke or spinal cord injury. This is part of a larger study to explore the use of neural stem cells as therapeutic entities to aid the recovery of neural function after injury.

Emma then moved to Cambridge where she joined Dr Harvey McMahon's lab at the MRC Laboratory of Molecular Biology as an EMBO fellow. During her postdoc within this group she contributed significantly to the functional characterisation of two curvature-inducing proteins, FCHo2 and Epsin, required for coated vesicle formation. In the course of her research she has

redefined clathrin-mediated endocytosis as a network of protein-protein and protein-lipid interactions existing in a dynamic equilibrium similar to that observed in signal transduction pathways. When this trafficking equilibrium is perturbed in diseases including cancer it can have profound effects on the distribution of important signalling molecules within the cells and the duration of their signals potentially leading to cellular transformation. Further exploring this relationship by defining how targeted disruption of the trafficking interactome affects the biology of cells forms the basis of her future studies.

Richard Turkington - Clinical Senior Lecturer in Medical Oncology



Dr Richard Turkington was appointed a Clinical Senior Lecturer in Medical Oncology at CCRCB in August 2014 and an Honorary Consultant at the Northern Ireland Cancer Centre with an interest in oesophago-gastric cancer. Having graduated in medicine from Queen's University Belfast in 2001 he began specialty training in Medical Oncology in 2005. In 2007 he was awarded a Cancer Research UK Bobby Moore Clinical Research Fellowship to pursue a PhD in novel drug target discovery in colorectal cancer under the supervision of Professor

Patrick Johnston. Following completion of his PhD in 2011 Dr Turkington was appointed as an Academic Clinical Lecturer in the field of oesophago-gastric cancer. In 2013 he became a Visiting Research Fellow at the Hutchison/MRC Cancer Unit at the University of Cambridge, under the supervision of Professor Rebecca Fitzgerald. His work has been published in high impact journals and in 2014 he received the American Society of Clinical Oncology Merit Award.

Dr Turkington's principle research interests include oesophago-

gastric cancer and the analysis of genomic datasets for the discovery of biomarkers and mechanisms of resistance to chemotherapeutic agents. These discoveries are being translated into clinical advances through the implementation of biomarker-led clinical trials. As part of the oesophago-gastric cancer team at Queen's University Belfast Dr Turkington is seeking to transform the care of oesophago-gastric patients through the integration of laboratory discoveries, translational science and clinical research.

PHOTO GALLERY



Researchers Basak Celtickci and Keara Redmond were among the VIPs who kicked off the newest CRUK Fundraising activity – sliding down Shipquay Street in Derry in a giant water slide!



In October 2014, Leukaemia & Lymphoma NI held their annual sponsored walks in Bangor and Belfast. Over 100 attended raising over £4,500 and counting. The Bangor walk was opened by Mayor of North Down, Councillor Peter Martin and the Belfast walk by Deputy Lord Mayor of Belfast, Councillor Maire Hendron. For more events like these go to: www.LeukaemiaAndLymphomaNI.org/events



Councillor Nichola Mallon (Lord Mayor of Belfast) and Councillor Lydia Patterson (High Sheriff of Belfast) visited CCRCB on 8 September 2014 (pictured here with Professor Kevin Prise, Professor Joe O'Sullivan, Professor Tony Gallagher (Pro-Vice-Chancellor, Academic Planning, Staffing and External Relations) and Professor David Waugh.)



The McCloskey group at the Physiological Society meeting in London, July 2014 pictured with the Keynote Speaker, Professor Lord Robert Winston. Pictured are: Mr Stuart McIlwaine (intercalated BSc student), Ms Bronagh McDonnell (PhD student), Dr Karen McCloskey (PI), Professor Lord Robert Winston, Ms Bailey Evans (PhD student), Ms Emily Barnes and Ms Lauren Baysting (BSc students). All group members gave presentations to the Society.



Richard Gray and Roger Matthews from the Provincial Grand Lodge of Down visited the ovarian cancer research lab recently to meet Dr Niamh Buckley and hand over a further cheque for £9,072.25. In total the Lodge has now raised just under £44,000 in memory of Denise Brewster, the wife of one of their members, Barry Brewster.

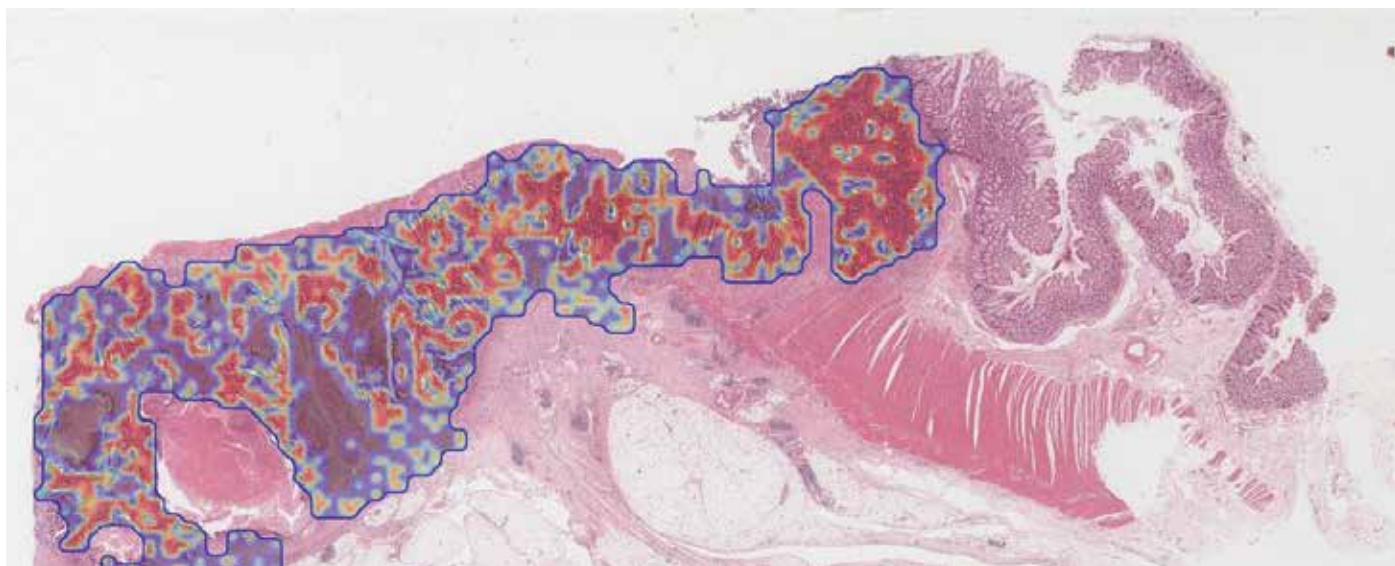


Michelle Napier visited Dr Kienan Savage recently to hand over a donation of £2,226 towards breast cancer research. This was raised from proceeds of the 2014 Sandra Campbell Ladies Golf Competition.

RECENT GRANTS AWARDED

Investigator(s)	Sponsor	Title	Amount	Start Date	End Date
Kennedy, Richard Wilson, Richard Harkin, Paul	Almac Group Ltd	Sir Allen McClay Clinical Fellowship	£192,500	01/09/14	31/08/17
Lappin, Terry El-Tanani, Mohamed	Invest NI	Horizon 2020 application PHC3-2015 call to study mechanisms common to different diseases	£14,915	01/10/14	31/12/14
Lawler, Mark	ABPI	Evaluating clinical outcomes, health care costs and the potential value of innovation in Northern Ireland's Health Care System	£40,000	01/01/15	31/12/15
McCloskey, Karen Prise, Kevin O'Sullivan, Joe	MRC	Mechanisms of radiation-induced bladder toxicity in prostate cancer treatment: correlation of urinary biomarkers with bladder pathophysiology	£514,518	01/02/15	31/01/18
Salto-Tellez, Manuel	Cancer Research UK	ECMC Placement/Exchange	£5,000	01/10/14	30/09/15
Thompson, Alex Zhang, Shu-Dong	Leukaemia & Lymphoma NI	Repurposing approved drugs for blood cancer therapies	£104,000	01/10/14	30/09/16
Thompson, Alex	Leukaemia & Lymphoma NI	Collaborative drug development in AML	£104,000	01/10/14	30/09/16
Waugh, David	CRUK	Clinical Research Fellowship	£260,000	01/01/15	31/12/17
Waugh, David Salto-Tellez, Manuel Wilson, Richard	Invest NI	Production and clinical validation of CXCR1 reagents for defining colorectal cancer sensitivity	£48,234	01/09/14	31/08/15
Waugh, David Salto-Tellez, Manuel Wilson, Richard	Invest NI	Commercialisation of CXCR1 marker diagnostic kits as a novel companion diagnostic for cancer therapy	£47,934	01/09/14	31/08/15
Wilson, Richard	NIHR – FOCUS 4	Molecular selection of therapy in metastatic colorectal cancer	£83,199	01/07/14	31/03/20

INDUSTRY AND INNOVATION NEWS



TissueMark automatically analyses H&E tissue samples, marking up regions of tumour and estimating the % tumour cells for molecular discovery and diagnostics

PathXL Ltd, a digital pathology software company spun out from CCRCB and founded by Professor Peter Hamilton, has recently had major success in expanding both its geographical reach and its image analysis product portfolio. PathXL is a global pioneer in the use of web-based solutions for digital pathology, and provides innovative software for use in drug discovery research, clinical sectors, biomarker analysis and education. For the third year in a row, PathXL has been nominated for Deloitte's Technology Fast 50 Awards – as one of the fastest growing companies in Northern Ireland.

Having established an office in USA in 2013, it has now won contracts with a number of major cancer centres in USA including Mayo Clinic, Cleveland Clinic and University of California Los Angeles. In addition to the 35 plus staff working from Head Offices in the Titanic Quarter in Belfast, PathXL has now grown its US team to five people.

Des Speed, CEO at PathXL said: "At PathXL, we have the ambition to be the best in the world at what we do. We are delighted that such prestigious USA organizations have chosen PathXL software for their Digital Pathology needs – further reinforcing the great progress that is being made by our North America team. We will have much more news like this in the months ahead."

PathXL continues to innovate. It has recently launched **TissueMark™** for the automated identification and annotation of tissue samples for molecular diagnostics. Using tumour recognition algorithms developed originally by Professor Hamilton's team at CCRCB, the company has established a new automated solution that is getting considerable traction in biopharma and diagnostic companies worldwide for annotating tumour samples and estimating tumour cell sufficiency for molecular testing. This is delivered using sophisticated web-based software and allows easy integration into busy

molecular pathology discovery and diagnostic labs. The Northern Ireland Molecular Pathology Laboratory within CCRCB has been essential in helping to validate the technology and the Northern Ireland Biobank have provided samples and digital images to develop and test the software. In addition to driving sales in this area, PathXL has recently won a number of awards for TissueMark technology including the Frost & Sullivan New Product Innovation Award in 2014 and UTV Business Eye Award for R&D just last month.

Professor Hamilton who is also VP for R&D at PathXL said: "These are really exciting times for PathXL as it expands on all fronts. It demonstrates the opportunity that exists for scientists within the CCRCB to successfully translate innovative ideas into industry, ideas that can truly impact on cancer discovery and diagnostics."



UNIVERSITY SENATE PRAISES IMPACT OF CCRCB RESEARCH ON FIGHT AGAINST CANCER

On 30 September 2014, members of the University Senate visited the Centre for Cancer Research and Cell Biology (CCRCB) as part of their Senate Capital Development Tour around the QUB Campus. They listened to a presentation from Professor Mark Lawler on behalf of CCRCB and toured some of the

laboratories and spoke with CCRCB researchers. The Senate were most impressed by the quality of the facilities in CCRCB, and the excellent research that was being performed by CCRCB researchers in the fight against cancer. "My lasting impression of the day ... was the absolute pride which staff and

students displayed in the work they were doing and in the environment which had been designed to facilitate such work. It was a privilege to witness such commitment, energy and enthusiasm," said Marion Matchett, Member of the University Senate.

RECENT PUBLICATIONS

- ALTAY, G., KURT, Z., DEHMER, M. and EMMERT-STREIB, F. (2014) Netmes: assessing gene network inference algorithms by network-based measures, *Evol Bioinform Online*, 10, p1-9.
- ANDERSON, L.A. and McMULLIN, M.F. (2014) Epidemiology of MPN: What do we know?, *Current Hematology Malignancy Reports*, 17 August 2014 (Epub ahead of print).
- ANDREYEV, H.J.N., ROSS, P., DONNELLAN, C., LENNAN, E., LEONNARD, P., WATERS, C., WEDLAKE, L., BRIDGEWATER, J., GLYNN-JONES, R., ALLUM, W., CHAU, I., WILSON, R. and FERRY, D. (2014) Practice guidance on the management of diarrhoea during cancer chemotherapy, *Lancet Oncology*, 15: e447-60.
- BAROSI, G., TEFFERI, A., BESSIS, C., BIRGEGARD, G., CERVANTES, F., FINAZZI, G., GISSLINGER, H., GREISSHAMMER, M., HARRISON, C., HEHLMANN, R., HERMOUET, S., KILADJIAN, J.J., KROGER, N., MESA, R., McMULLIN, M.F., PARDANANI, A., PASSAMONTI, F., SAMUELSSON, J., VANNUCCHI, A.M., REITER, A., SILVER, R.T., VERSTOVEK, S., TOGNONI, G. and BARBUI, T. (2014) Clinical endpoints for drug trials in BCR-ABL-1-negative classic myeloproliferative neoplasms: consensus statements from European LeukemiaNET (ELN) and International Working Group-Myeloproliferative Neoplasms Research and Treatment (IWG-MRT), *Leukemia*, 25 August 2014 (Epub ahead of print).
- BROWN, R., DONNELLY, D.E., ALLEN, D., LOUGHREY, M.B. and MORRISON, P.J. (2014) Familial urothelial cell carcinoma of the bladder with autosomal dominant inheritance and late onset phenotype, *Springer Plus*, 3, p281.
- BURDAK-ROTHKAMM, S., ROTHKAMM, K., McCLELLAND, K., RASHID, S.T. and PRISE, K.M. (2014) BRCA1, FANCD2 and Chk1 are potential molecular targets for the modulation of a radiation-induced DNA damage response in bystander cells, *Cancer Lett.*, 7 October 2014 (Epub ahead of print).
- BURDAK-ROTHKAMM, S., SMITH, A., LOBACHEVSKY, P., MARTIN, R. and PRISE, K.M. (2014) Radioprotection of targeted and bystander cells by methylproamine, *Strahlenther Onkol.*, 23 September 2014 (Epub ahead of print).
- BUTTERWORTH, K.T., REDMOND, K.M., McMAHON, S.J., COLE, A.J., McCARTHY, H.O., O'SULLIVAN, J.M., HOUNSELL, A.R. and PRISE, K.M. (2014) Conventional in vivo irradiation procedures are insufficient to accurately determine tumor responses to non-uniform radiation fields, *Int J Radiat Biol.*, 27 October 2014 (Epub ahead of print).
- CAMPBELL, E., KENNEDY, F., RUSSELL, A., SMITHSON, W.H., PARSONS, L., MORRISON, P.J., LITGAN, B., IRWIN, B., DELANTY, N., HUNT, S.J., CRAIG, J. and MORROW, J. (2014) Malformation risks of antiepileptic drug monotherapies in pregnancy: updated results from the UK and Ireland Epilepsy and Pregnancy Registers, *J Neurol Neurosurg Psychiatry*, 85, p1029-1034.
- CHAUDHARY, P., MARSHALL, T.I., PEROZZIELLO, F.M., MANTI, L., CURRELL, F.J., HANTON, F., McMAHON, S.J., KAVANAGH, J.N., CIRRONE, G.A., ROMANO, F., PRISE, K.M. and SCHETTINO, G. (2014) Relative Biological Effectiveness Variation Along Monoenergetic and Modulated Bragg Peaks of a 62-MeV Therapeutic Proton Beam: A Preclinical Assessment, *Int J Radiat Oncol Biol Phys.*, 90(1), p27-35.
- CLARK, G.R., SCIACOVELLI, M., GAUDE, E., WALSH, D.M., KIRBY, G., SIMPSON, M.A., TREMBATH, R.C., BERG, J.N., WOODWARD, E.R., KINNING, E., MORRISON, P.J., FREZZA, C. and MAHER, E.R. (2014) Germline FH mutations presenting with pheochromocytoma, *J Clin Endocrinol Metab.*, 99(10):E2046-50.
- CREE, I.A., DEANS, Z., LIGTENBERG, M.J., NORMANNO, N., EDSJÖ, A., ROULEAU, E., SOLÉ, F., THUNNISSEN, E., TIMENS, W., SCHUURING, E., DEQUEKER, E., MURRAY, S., DIETEL, M., GROENEN, P. and VAN KRIEKEN, J.H.; for the European Society of Pathology Task Force on Quality Assurance in Molecular Pathology and the Royal College of Pathologists (2014) Guidance for laboratories performing molecular pathology for cancer patients, *J Clin Pathol*, 10 July 2014 (Epub ahead of print).
- DEHMER, M., EMMERT-STREIB, F. and SHI, Y. (2014) Interrelations of graph distance measures based on topological indices, *PLoS One*, 9(4):e94985.
- DEHMER, M., EMMERT-STREIB, F. and TRIPATHI, S. (2014) Large-scale evaluation of molecular descriptors by means of clustering, *PLoS One*, 8(12):e83956.
- EMMERT-STREIB, F. (2014) Enhancing our understanding of ways to analyze metagenomes, *Front Genet*, 5, p108.
- EMMERT-STREIB, F., DE MATOS SIMOES, R., GLAZKO, G., McDADE, S., HAIBE-KAINS, B., HOLZINGER, A., DEHMER, M. and CAMPBELL, F. (2014) Functional and genetic analysis of the colon cancer network, *BMC Bioinformatics*, 15 Suppl 6:S6.
- EMMERT-STREIB, F., DE MATOS SIMOES, R., MULLAN, P., HAIBE-KAINS, B. and DEHMER, M. (2014) The gene regulatory network for breast cancer: integrated regulatory landscape of cancer hallmarks, *Front Genet*, 5, p15.
- GARETH, E.D., NISHA, K., YIT, L., SOUJANYE, G., EMMA, H., MASSAT, N.J., MAXWELL, A.J., SARAH, I., ROSALIND, E., LEACH, M.O., MARIBS GROUP, ANTHONY, H. and STEPHEN, D. (2014) MRI breast screening in high-risk women: cancer detection and survival analysis, *Breast Cancer Res Treat.*, 145(3), p663-72.
- HAIBE-KAINS B. and EMMERT-STREIB F. (2014) Quantitative assessment and validation of network inference methods in bioinformatics, *Front Genet*, 5, p221.
- HAMILTON, P.W., BANKHEAD, P., WANG, Y., HUTCHINSON, R., KIERAN, D., McART, D.G., JAMES, J. and SALTO-TELLEZ, M. (2014) Digital pathology and image analysis in tissue biomarker research, *Methods*, 15 July 2014 (Epub ahead of print).
- HANNA, G.G., SIVA, S., PLUMRIDGE, N., SOLOMON, B. and BALL, D.L. (2014) Preoperative chemotherapy for non-small-cell lung cancer, *Lancet*, 384(9939), p232-3.
- HARRISON, C.N., BUTT, N., CAMPBELL, P., CONNEALLY, E., DRUMMOND, M., GREEN, A.R., MURRIN, R., RADIA, D.H., MEAD, A., REILLY, J.T., CROSS, N.C. and McMULLIN, M.F. (2014) Modification of British Committee for Standards in Haematology diagnostic criteria for essential thrombocythaemia, *British Journal of Haematology*, 17 June 2014 (Epub ahead of print).
- HIGGINS, C., BOUZZAOUI, S., GADDALE, K., D'COSTA, Z., TEMPLEMAN, A., O'ROURKE, M., YOUNG, A., SCOTT, C., HARRISON, T., MULLAN, P. and WILLIAMS, R. (2014) P3 SAR exploration of biphenyl carbamate based Legumain inhibitors, *Biorganic Medicinal Chemistry Letters*, 24(11), p2521-2524.
- HUANG, Y.H., AL-AIDAROOS, A.Q., YUEN, H.F., ZHANG, S.D., SHEN, H.M., ROZYCKA, E., McCRUDDEN, C.M., TERGAONKAR, V., GUPTA, A., LIN, Y.B., THIERY, J.P., MURRAY, J.T. and ZENG, Q. (2014) A role of autophagy in PTP4A3-driven cancer progression, *Autophagy*, 10(10), p1787-800.
- JAIN, S., COULTER, J.A., BUTTERWORTH, K.T., HOUNSELL, A.R., McMAHON, S.J., HYLAND, W.B., MUIR, M.F., DICKSON, G.R., PRISE, K.M., CURRELL, F.J., HIRST, D.G. and O'SULLIVAN, J.M. (2014) Gold nanoparticle cellular uptake, toxicity and radiosensitisation in hypoxic conditions, *Radiotherapy and Oncology*, 110(2), p342-7.
- JEFFERS, L., MORRISON, P., McCAUGHAN, E. and FITZSIMONS, D. (2014) Maximising survival: the main concern of women with hereditary breast and ovarian cancer who undergo genetic testing for BRCA1/2 *Eur J Oncol Nursing*, 18, p411-18.
- KENNEDY, J. and LAWLER, M. (2014) European Cancer Patient Bill of Rights dedicated to the memory of Visionary Irish Radiation Oncologist, *Oncologist (European Edition)*, 19, p10.
- LOGAN, G.E., MOR-VAKNIN, N., BRAUNSCHEWIG, T., JOST, E., MARKOVITZ, D.M., MILLS, K.I., KAPPE, F. and PERCY, M.J. (2014) The DEK oncogene is differentially expressed during normal hematopoiesis and undergoes reduced expression in Acute Myeloid Leukemia (AML), *Blood Cells Molecular and Disease*, 13 August 2014 (Epub ahead of print).
- MATCHETT, K.B. and LAPPIN, T.R. (2014) Cancer Stem Cells: From Concept to Cure, *Stem Cells*, 32, p2563-70.
- MAXWELL, P., MELENDEZ-RODRÍGUEZ, F., MATCHETT, K.B., ARAGONES, J., BEN-CALIFA, N., JAEKEL, H., HENGST, L., LINDNER, H., BERNARDINI, A., BROCKMEIER, U., FANDREY, J., GRUNERT, F., OSTER, H.S., MITTELMAN, M., EL-TANANI, M., THIERSCH, M., SCHNEIDER GASSER, E.M., GASSMANN, M., DANGOOR, D., CUTHBERT, R.J., IRVINE, A., JORDAN, A., LAPPIN, T., THOMPSON, J. and NEUMANN, D. (2014) Novel antibodies directed against the human erythropoietin receptor: creating a basis for clinical implementation, *British Journal of Haematology*, 4 October 2014 (Epub ahead of print).
- MAXWELL, P.J., NEISEN, J., MESSENGER, J. and WAUGH, D.J. (2014) Tumor-derived CXCL8 signaling augments stroma-derived CCL2-promoted proliferation and CXCL12-mediated invasion of PTEN-deficient prostate cancer cells, *Oncotarget*, 5(13), p4895-908.
- OLSEN, C., BONTEMPI, G., EMMERT-STREIB, F., QUACKENBUSH, J. and HAIBE-KAINS, B. (2014) Relevance of different prior knowledge sources for inferring gene interaction networks, *Front Genet*, 5, p177.
- OLSEN, C., FLEMING, K., PRENDERGAST, N., RUBIO, R., EMMERT-STREIB, F., BONTEMPI, G., HAIBE-KAINS, B. and QUACKENBUSH, J. (2014) Inference and validation of predictive gene networks from biomedical literature and gene expression data, *Genomics*, 103(5-6), p329-36.
- PETROUSI, N., COPLEY, R.R., LAPPIN, T.R., HAGGAN, S.E., BENTO, C.M., CARIO, H., PERCY, M.J., CONSORTIUM, T.W., RATCLIFFE, P.J., ROBBINS, P.A. and McMULLIN, M.F. (2014) Erythrocytosis associated with a novel missense mutation in the BPGM gene, *Haematologica*, 11 July 2014 (Epub ahead of print).
- RAHMATALLAH, Y., EMMERT-STREIB, F. and GLAZKO, G. (2014) Gene Sets Net Correlations Analysis (GSNCA): a multivariate differential coexpression test for gene sets, *Bioinformatics*, 30(3), p360-8.
- REILLY, J.T., McMULLIN, M.F., BEER, P.A., BUTT, N., CONNEALLY, E., DUNCOMBE, A.S., GREEN, A.S., MIKHAEL, G., GILLEEE, M.H., KNAPPER, S., MEAD, A.J., MESA, R.A., SEKHAR, M. and HARRISON, C.N. (2014) Use of JAK inhibitors in the management of myelofibrosis: a revision of the British Committee for Standards in Haematology guidelines for investigation and management of Myelofibrosis 2012, *British Journal of Haematology*, 25 June 2014 (Epub ahead of print).
- SALTO-TELLEZ, M., JAMES, J.A. and HAMILTON, P.W. (2014) Molecular pathology - The value of an integrative approach, *Molecular Oncology*, 12 August 2014 (Epub ahead of print).
- SANCEY, L., LUX, F., KOTB, S., ROUX, S., DUFORT, S., BIANCHI, A., CRÉMILLIEUX, Y., FRIES, P., COLL, J.L., RODRIGUEZ-LAFRASSE, C., JANIER, M.,

DUTREIX, M., BARBERI-HEYOB, M., BOSCHETTI, F., DENAT, F., LOUIS, C., PORCEL, E., LACOMBE, S., LE DUC, G., DEUTSCH, E., PERFETTINI, J.L., DETAPPE, A., VERRY, C., BERBECO, R., BUTTERWORTH, K.T., McMAHON, S.J., PRISE, K.M., PERRIAT, P. and TILLEMENT, O. (2014) The use of theranostic gadolinium-based nanoprobes to improve radiotherapy efficacy, *Br J Radiol.*, 87(1041), p20140134.

SCHMID, D., JARVIS, G.E., FAY, F., SMALL, D.M., GREENE, M.K., MAJKUT, J., SPENCE, S., McLAUGHLIN, K.M., McCLOSKEY, K.D., JOHNSTON, P.G., KISSEPFENNIG, A., LONGLEY, D.B. and SCOTT, C.J. (2014) Nanoencapsulation of ABT-737 and camptothecin enhances their clinical potential through synergistic antitumor effects and reduction of systemic toxicity, *Cell Death Dis.*, 5:e1454.

SHARPE, D.J., ORR, K.S., MORAN, M., WHITE, S.J., McQUAID, S., LAPPIN, T.R.J., THOMPSON, A. and JAMES, J.A. (2014) POU2F1 activity regulates HOXD10 and HOXD11 promoting a proliferative and invasive phenotype in Head and Neck cancer, *Oncotarget*, 5(18), p8803-8815.

SHIN, E.M., SIN HAY, H., LEE, M.H., GOH, J.N., TAN, T.Z., SEN, Y.P., LIM, S.W., YOUSEF, E.M., ONG, H.T., THIKE, A.A., KONG, X., WU, Z., MENDOZA, E., SUN, W., SALTO-TELLEZ, M., LIM, C.T., LOBIE, P.E., LIM, Y.P., YAP, C.T., ZENG, Q., SETHI, G., LEE, M.B., TAN, P., GOH, B.C., MILLER, L.D., THIERY, J.P., ZHU, T., GABOURY, L., TAN, P.H., HUI, K.M., YIP, G.W., MIYAMOTO, S., KUMAR, A.P. and TERGAONKAR, V.

(2014) DEAD-box helicase DP103 defines metastatic potential of human breast cancers, *J Clin Invest*, 124(9), p3807-24.

STEWART, J., JAMES, J., McCLUGGAGE, G.W., McQUAID, S., ARTHUR, K., BOYLE, D., MULLAN, P., McART, D., YAN, B., IRWIN, G., HARKIN, D.P., ZHENGDENG, L., ONG, C.W., YU, J., VIRSHUP, D.M. and SALTO-TELLEZ, M. (2014) Analysis of wntless (WLS) expression in gastric, ovarian, and breast cancers reveals a strong association with HER2 overexpression, *Mod Pathol.*, 26 September 2014 (Epub ahead of print).

TAGGART, L.E., McMAHON S.J., CURRELL F.J., PRISE K.M. and BUTTERWORTH, K.T. (2014) The role of mitochondrial function in gold nanoparticle mediated radiosensitisation, *Cancer Nanotechnol.*, 5(1), p5.

THIBAUT, I., POON, I., YEUNG, L., ERLER, D., KIM, A., KELLER, B., LOCHRAY, F., JAIN, S., SOLIMAN, H. and CHEUNG, P. (2014) Predictive Factors for Local Control in Primary and Metastatic Lung Tumours after Four to Five Fraction Stereotactic Ablative Body Radiotherapy: A Single Institution's Comprehensive Experience, *Clinical Oncology*, 26(11), p713-9.

TRIPATHI, S., DEHMER, M. and EMMERT-STREIB, F. (2014) NetBioV: an R package for visualizing large network data in biology and medicine, *Bioinformatics*, 12 June 2014 (Epub ahead of print).

TURNER, P.G. and O'SULLIVAN, J.M. (2014) Radium 223 for the treatment of metastatic prostate cancer,

Expert Opin Pharmacother, 15(14), p2105-11.

VAN SCHAEYBROECK, S., LAWLER, M. and JOHNSTON, P.G. (2014) Pancreatic Cancer. In *Treatment of Cancer* (6th Edition) Eds. Sikora, K and Price, P, CRC Press.

WASAN, H.S., MEADE, A., ADAMS, R.A., WILSON, R.H., PUGH, C., FISHER, D., MADI, A., SIZER, B., BUTLER, R., KAPLAN, R.S. and MAUGHAN, T.S.; on behalf of the MRC COIN-B Trial Investigators (2014) Results of the two-arm phase II randomised MRC COIN-B (CR11) trial: Intermittent chemotherapy plus continuous or intermittent cetuximab in the first-line treatment of advanced colorectal cancer, *Lancet Oncology*, 15(6), p631-639.

WONG, N.A., GONZALEZ, D., SALTO-TELLEZ, M., BUTLER, R., DIAZ-CANO, S.J., ILYAS, M., NEWMAN, W., SHAW, E., TANIÈRE, P. and WALSH, S.V. (2014) RAS testing of colorectal carcinoma-a guidance document from the Association of Clinical Pathologists Molecular Pathology and Diagnostics Group, *J Clin Pathol.*, 4 July 2014 (Epub ahead of print).

NEW RESEARCH STUDENTS

Welcome to the following postgraduate students who have commenced their research studies at CCRCB this academic year:

Students:	Supervisors:
Christopher Connolly	Professor K Prise, Dr F Currell & Dr G Schettino
Stephanie Craig	Dr J James & Professor M Salto-Tellez
Victoria Dunne	Dr G Hanna & Professor K Prise
Aya El-Helali	Professor R Kennedy, Professor R Wilson & Professor P Harkin
Fiammetta Falcone	Dr S McDade & Dr D Longley
Jennifer Ferris	Dr V Coyle, Dr D Longley & Dr M Catherwood
Abigail Flynn	Dr R Williams & Dr T Schneiders
Donna Graham	Dr V Coyle & Professor R Kennedy
Owen Hoare	Professor M Lawler & Dr S Van Schaeybroeck
Luke Humphreys	Dr D Longley, Professor R Kennedy & Professor C Scott
Arman Javadi	Professor C Campbell & Dr S Van Schaeybroeck
Cliona Johnston	Professor K Mills, Dr S Irvine & Dr L Crawford
Catherine Knowlson	Dr P Mullan & Dr N O'Brien
Katrina Lappin	Professor K Mills & Dr K Savage
Jane McClements	Professor C Campbell & Professor R Wilson
Lisa McCrellis	Professor C Campbell & Dr S Van Schaeybroeck
Angela O'Neill	Professor J O'Sullivan & Professor A Hounsell
Aliyu Musa	Dr F Emmert-Streib & Professor R Kennedy
Soraia Rosa	Professor K Prise & Dr K Butterworth
James Smith	Professor K Mills & Dr A Thompson
Rebecca Steele	Dr P Mullan & Dr S McDade
Hannah Thompson	Professor K Prise, Professor T Robson & Professor A Hounsell
Philip Turner	Professor J O'Sullivan, Professor K Prise & Dr S Jain
Laura Webster	Dr F Emmert-Streib & Professor R Kennedy
Jessica-Anne Weir	Dr S Van Schaeybroeck, Professor M Salto-Tellez & Professor L Murray

NEW APPOINTMENTS

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

Academic Staff:

Dr Emma Evergren

Clinical Research Fellows:

Dr Aya El-Helali
Dr Donna Graham
Dr Angela O'Neill

Research Staff:

Mr Chris Armstrong
Dr Ivan Grishigan
Dr Matthew Helm
Ms Soraia Rosa
Miss Gayathri Thillaiyampalam

Clinical Academic Training Programme:

Dr Graeme Greenfield

Administrative Staff:

Mrs Paula Langham

Technical Staff:

Dr Caroline Quinn

Visiting Researchers:

Ms Blaithin McAdam
Mrs Helen McKeever
Dr Karl Mulligan
Mrs Zahra Narimani

EVENTS

Radiation Biology and Cancer: From Molecular Responses to the Clinic

5 – 7 February 2015

Philharmonie, Essen, Germany

For further information and registration please refer to:
<http://www.eacr.org/radiationbiology2015/>

IACR 2015 Conference

26 – 27 February 2015

Castleroy Park Hotel, Limerick

For further information and registration please refer to:
<http://www.iacr.ie>

EACR Conference Series 2015: Precision Medicine for Cancer

1 – 4 March 2015

Neumunster Abbey, Luxembourg

For further information and registration please refer to:
<http://www.eacr.org/precisionmedicine2015/>

AACR 2015 Annual Meeting

18 – 22 April 2015

Pennsylvania Convention Centre

Philadelphia, Pennsylvania

For further information and registration please refer to:
<http://www.aacr.org>

All Ireland Cancer Consortium Conference

10 – 13 May 2015

Riddel Hall, Queen's University Belfast

For further information and registration please refer to:
<http://www.qub.ac.uk/AICC2015>

ASCO 2015 Annual Meeting

29 May – 2 June 2015

McCormick Place

Chicago, Illinois

For further information and registration please refer to:
<http://am.asco.org/>

CCRCB EVENTS

2015 CCRCB Mitchell Lecture

5 March 2015

Professor Lisa Coussens
Knight Cancer Institute,
Oregon Health and Science University

CCRCB Open Day

(in conjunction with the All Ireland Cancer Consortium Conference)

9 May 2015

For further information and registration please refer to:
<http://www.qub.ac.uk/AICC2015>

Comments on the CCRCB Bulletin or suggestions for future editions should be forwarded to katie.stewart@qub.ac.uk