

Hutchison/MRC Research Centre

Newsletter

To undertake world leading research into cancer cell biology that can be translated into clinical practice

Contents

February 2009

www.hutchison-mrc.cam.ac.uk

New series of GI Forums begins	2
First CCC Post-Doctoral Meeting	3
Why not a post-doc group in the Hutch?	3
Histopathology summer school	4
New look for Hutch website	4
Upcoming events	4
Hutch scientists in the media	5
Arrivals and departures	5
Hutch scientists at NCRI meeting	6
Hutch students at CamLS Symposium	6
Fund raising for the Adam Rogers Trust	6
Recent publications	7

Message from the Directors

Welcome to the first edition of the new Hutchison/MRC Research Centre newsletter. We hope that this newsletter will provide an insight into the activities and achievements of the MRC Cancer Cell Unit, Department of Oncology and Cambridge Molecular Therapeutics Programme, which make up the constituent parts of the Centre. This edition looks back over the latter part of 2008, and highlights some of the projects we have been involved in as well as spotlighting some upcoming events.

Professor Ashok Venkitaraman
Professor Ron Laskey
Professor Bruce Ponder

Joint Directors, Hutchison/MRC
Research Centre

Hutchison/MRC Research Centre Annual Retreat takes place at Hinxtton

October saw over a hundred and fifty staff members from all of the Hutch's component parts gather together at the Wellcome Trust Conference Centre in Hinxtton to share information and learn about the latest developments in a variety of areas of cancer research.

The Annual Retreat was divided into a number of sessions. The first part of the day involved a scientific programme of talks from group leaders, followed by a poster session, with dinner and a revue in the evening.

Many of the talks focussed on the diagnosis of different cancers. Nick Coleman reviewed the role of MCM proteins as biomarkers for detecting colorectal, lung and cervical cancers. Rebecca Fitzgerald described the use of a new diagnostic device involving a capsule and sponge for collecting cells used to detect oesophageal cancer, and MCM biomarkers appeared again in John Kelly's talk on bladder cancer.



Paul Edwards spoke about the complex karyotypes that can arise following chromosome translocations in breast cancer, and Bruce Ponder described how this cancer can be inherited.

Anna Philpott and Phil Jones spoke about how cell fate decisions can lead to cancers, with an

Continued on page 2

Continued from page 1

emphasis on neurogenesis and stem cell biology, respectively.



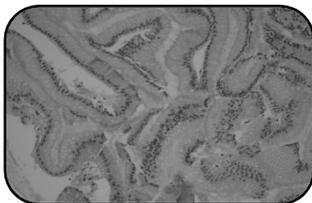
Ashok Venkitaraman's talk covered the cell cycle and the role of DNA damage responses in cancer. Ron Laskey spoke about a different aspect of the cell cycle, and the role of Geminin. Finally, Guillermo de la Cueva gave an overview of a new approach to cancer therapies involving toxin/antitoxin pairs to mediate cell death.

Each talk was followed by some lively discussion which allowed researchers to explore opportunities for future collaborations. The afternoon's poster session also sparked much exchanging of views. The high standard of posters was reflected in the fact that there were four joint winners of the poster competition. Congratulations to Gary McDowell (Philpott group), Anna Paterson (Fitzgerald group), Eeson Rajendra (Venkitaraman group) and Nina Marinsek (Laskey group) who shared a prize of financial support for conference attendance.

The Retreat concluded with dinner, and a light-hearted look at the world of research courtesy of sketches in the revue and a musical appearance by Director, Ron Laskey.



New series of Gastro-Intestinal Cancer Forums begins



The last in the 2008 series of Gastro-Intestinal (GI) Cancer Forums took place in December. These events are planned by an organising committee that includes Rebecca Fitzgerald and other members of her group in the MRC Cancer Cell Unit. The GI Cancer Forums aim to link up clinicians and scientists with a common interest in GI cancer. The meetings are held once a term with around a hundred people from a variety of disciplines attending, including scientists, physicians, surgeons, nurses, and other healthcare professionals. Each meeting invites an outside speaker who is an acknowledged expert in their field and then combines this with a mixture of clinical and lab-based talks. External speakers in the past have included Jane Blazeby talking about the quality of life after oesophageal surgery, Ian Tomlinson discussing the genetics of colorectal

cancer and Ricky Sharma asking if we are ready for molecular profiling prior to chemotherapy. The Forums also act as a platform for younger researchers to present their work, as well as showcasing the cutting edge research in this area that is taking place in Cambridge.



The first GI Cancer Forum of 2009 takes place on the **26th February** from 5:30pm at the Cambridge Research Institute on the Addenbrooke's campus, and features Prof John Neoptolemos (University of Liverpool) as its invited speaker. The event is followed by a complimentary drinks reception and buffet, registration is not required and everyone interested in GI cancer is very welcome. For any further information on this event and other upcoming meetings please contact Chris Peters (Email: cjp@hutchison-mrc.cam.ac.uk).

First Cambridge Cancer Centre Post-Doctoral Meeting

Researcher Pam Rowling was recently involved in the organisation of the inaugural Cambridge Cancer Centre post-doctoral meeting. Here, Pam writes about the origins of this meeting, and a new initiative it has sparked, from her own perspective as a post-doc in the Izthaki group in the MRC Cancer Cell Unit.



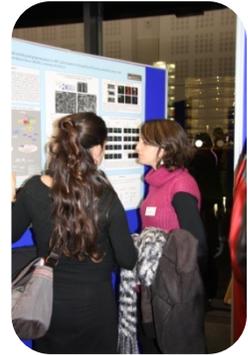
The idea of a meeting for postdoctoral researchers originated from the steering committee of the Cambridge Cancer Centre. Whereas there are well established forums for PhD students to meet and discuss research there was nothing similar for post-docs. A committee of five post-docs was drawn together from member organisations of the Cambridge Cancer Centre and as none of us had any experience of planning a conference, Katrien van Look, Scientific Communications Officer at the CRI guided and cajoled the event into shape.

We decided at our first meeting that our aim was to bring together post-docs across Cambridge, with an interest in cancer, to stimulate discussion and promote collaborations. Therefore we wanted the meeting to be informal and to give the maximum number of scientist an opportunity to present their research.

The day was divided into four parts and centred around ten diverse cancer-related research themes.

In the morning there were five talks, including the Hutchison's very own Mike Gonzalez, from the Laskey group. He gave a talk, (despite having a bad cold), on 'How to trigger a nuclear blast'.

To maximise participation for all delegates the afternoon was devoted to workshops in which scientists gave short presentations, followed by discussions. These proved to be very stimulating sessions and all had to be carefully chaired to prevent them from overrunning!



The keynote speaker Prof Kim Nasymth, from the Department of Biochemistry at the University of Oxford, gave a riveting lecture on 'How do cells hold sister chromatids together'. The discussion after the talk continued for more than half an hour, not bad after a very full on day.

Finally there was a poster and nibbles session that we assumed would go on for about an hour but lasted much longer, as people were still talking after two hours!

The majority of the feedback for the conference has been positive. The workshops proved to be particularly popular and will be the core of future meetings.

Why not a post-doc group in the Hutch?

While I have been organising this conference, Chukwuma Agu (de la Cueva Mendez group) and I have been having discussions about setting up an informal post-doc group in the Hutch. Chuks has come from the Vienna Biocenter/ IMP where such a group exists and is an essential part of the scientific community, laying on both scientific and social activities with the end result of improving research by communication. We see this as a positive thing that could be set up in the Hutch.

We have booked room 1.8 on Tuesday Feb 24th from 10:30am so all interested post-docs can meet together and come up with a plan. Any questions to Pam (Email: pjer2@hutchison-mrc.cam.ac.uk) or Chuks (Email: caa39@hutchison-mrc.cam.ac.uk).

Upcoming events

Cambridge Science Festival

14th March, Exam Hall, New Museums Site

Join us in the biology zone as we explore how our knowledge and understanding of cancer, and its treatment, has developed and improved over the ages.

MRC Cancer Cell Unit Annual Lecture

24th March, Max Perutz Lecture Theatre, MRC-LMB

We are delighted to announce that Nobel Prize winner Phillip Sharp from the Massachusetts Institute of Technology will deliver this year's MRC Cancer Cell Unit Annual Lecture. Professor Sharp's work on gene splicing has proved vital to progress in all areas of research in genetics and molecular biology.

Full details coming soon.

Histopathology summer school

Members of the Coleman group from the MRC Cancer Cell Unit were involved in the organisation of a week long summer school for histopathologists held at the Department of Pathology, in Cambridge.



Ian Roberts, Anasuya Chattopadhyay, and Stephanie Carter joined group leader Nick Coleman in delivering a two day training module covering both practical aspects of applying molecular biology techniques in clinical settings and theoretical issues surrounding primer design strategies for PCR.

New look for Hutch website

The Hutchison/MRC Research Centre website has undergone a significant re-design, with better navigation and new, updated content.

We hope that the new site will enable users to easily find information on the research that is taking place in this building as well as useful resources such as an events listing.

You can visit the new site at:

www.hutchison-mrc.cam.ac.uk

Any views on additional features you'd like to see or other feedback should be directed towards the MRC



Cancer Cell Unit Scientific Communications Manager (email: id207@hutchison-mrc.cam.ac.uk).

Hutch scientists in the media



A number of Hutch scientists have appeared in the press recently. **Ashok Venkitaraman** made it to the front cover of the University's newsletter highlighting its 800th anniversary and **Chukwuma Agu** (de la Cueva Mendez group) appears in INFO, the magazine of the Austrian Science Fund.



Nick Coleman's paper on the use of MCM biomarkers in the diagnosis of anal cancer published in Cancer Epidemiology and Biomarkers this month, was selected to appear as a news story on the MRC corporate website and press released by the MRC press team. Please visit the MRC site to read the full press release (www.mrc.ac.uk/Newspublications/News/MRC004911).

Arrivals and departures

We welcome the new intake of MRC Cancer Cell Unit and Oncology PhD students to the building; Chris Hurley (Philpott group), Elayanambi Sundaramoorthy (Venkitaraman group), Muhammad Abdullah Alvi and Xin Yi Goh (Fitzgerald group), Adriana Arnaiz-Vivas and Alice Turnbull (de la Cueva Mendez group), Maksym Tsytlonok (Izthaki group), Matthew Murray (Coleman group).

We are sorry to see Oncology group leader John Kelly and Laboratory Manager (H&S) Mark Elsdon leave us and wish them every success in their new roles.

Hutch scientists at NCRI meeting

Early October saw the National Cancer Research Institute Conference (NCRI) take place in Birmingham. Several members of the Hutch attended this event and presented their own research work. They included Nina Marinsek and Mike Gonzales from the Laskey group, who gave poster and oral presentations respectively. The session on ‘Stem Cells in Cancer’ was chaired by group leader Phil Jones, and Rebecca Fitzgerald gave a plenary lecture, entitled ‘*Preinvasive disease: catching it earlier, understanding it better, hitting it harder*’. The lecture discussed the current state of the Barrett’s oesophagus field and the lessons that are relevant to making clinical progress in other



preinvasive lesions.

An interview with Rebecca recorded at the conference is also available as a podcast from the [NCRI website](#).

Hutch students at the Cambridge Life Sciences Symposium

Last September students from the MRC Laboratory of Molecular Biology, MRC Dunn Human Nutrition Unit, Babraham Institute, and the Hutchison/MRC Research Centre organised their own graduate conference. This was the second Cambridge Life Sciences Symposium to be held so far, with the third planned for later this year. Last year’s organising committee included Mark Preston (de la Cueva Mendez group) and the event saw PhD students Anna Paterson (Fitzgerald group) and Stephanie Carter (Coleman group) give talks, and Sudarshan Kadri (Fitzgerald group) and Caroline Malone (Jones group) present posters.

Fundraising for the Adam Rogers Trust



Matthew Murray and Mark Pett from the Coleman group took part in a twenty-four hour 5-a-side football match in September at the David Beckham Academy in London, to raise money for the Adam Rogers Trust. The Trust is a registered charity that aims to raise funds for children with cancer and adults with learning difficulties. The event raised almost £100,000 in total, although as Matthew says, “*despite a valiant effort our team lost 7/1!*”!

For more information on the Adam Rogers Trust visit: www.adamrogerstrust.org

Recent publications

Characterization of naturally occurring HPV16 integration sites isolated from cervical keratinocytes under noncompetitive conditions. Dall KL, Scarpini CG, Roberts I, Winder DM, Stanley MA, Muralidhar B, Herdman MT, Pett MR, **Coleman N**. *Cancer Res.* 2008 Oct 15;68(20):8249-59.

Improved screening for anal neoplasia by immunocytochemical detection of minichromosome maintenance proteins. Scarpini C, White V, Muralidhar B, Patterson A, Hickey N, Singh N, Mullerat J, Winslet M, Davies RJ, Phillips ML, Stacey P, Laskey RA, Miller R, Nathan M, **Coleman N**. *Cancer Epidemiol Biomarkers Prev.* 2008 Oct;17(10):2855-64.

New insights into the chromosome cycle. Conference on the Replication & Segregation of Chromosomes. **de la Cueva-Mendez G**, Labib K. *EMBO Rep.* 2008 Dec;9(12):1177-81. Epub 2008 Oct 31.

High-resolution array CGH clarifies events occurring on 8p in carcinogenesis. Cooke SL, Pole JC, Chin SF, Ellis IO, Caldas C, **Edwards PA**. *BMC Cancer.* 2008 Oct 7;8:288.

Barrett's Esophagus. Bird-Lieberman EL, **Fitzgerald RC**. *Gastroenterol Clin North Am.* 2008 Dec;37(4):921-42

Histopathological and molecular analysis of gastrectomy specimens from hereditary diffuse gastric cancer patients has implications for endoscopic surveillance of individuals at risk. Barber ME, Save V, Carneiro F, Dwerryhouse S, Lao-Sirieix P, Hardwick RH, Caldas C, **Fitzgerald RC**. *J Pathol.* 2008 Nov;216(3):286-94.

Mechanisms and sequelae of E-cadherin silencing in hereditary diffuse gastric cancer. Barber M, Murrell A, Ito Y, Maia AT, Hyland S, Oliveira C, Save V, Carneiro F, Paterson AL, Grehan N, Dwerryhouse S, Lao-Sirieix P, Caldas C, **Fitzgerald RC**. *J Pathol.* 2008 Nov;216(3):295-306.

Shifting transition states in the unfolding of a large ankyrin repeat protein. Werbeck ND, Rowling PJ, Chellamuthu VR, **Itzhaki LS**. *Proc Natl Acad Sci USA.* 2008 Jul 22;105(29):9982-7

Cardiac differentiation in Xenopus requires the cyclin-dependent kinase inhibitor, p27^{Xic1}. Movassagh M, **Philpott A**. *Cardiovasc Res.* 2008 Aug 1;79(3):436-47.

Cell-cycle coordination between DNA replication and recombination revealed by a vertebrate N-end rule degraon-Rad51. Su X, Bernal JA, **Venkitaraman AR**. *Nat Struct Mol Biol.* 2008 Oct;15(10):1049-58.

Hutchison/MRC Research Centre
Hills Road Cambridge CB2 0XZ

Tel: 01223 763240

Email: reception@hutchison-mrc.cam.ac.uk

www.hutchison-mrc.cam.ac.uk