Paterson
Institute for Cancer Research

Paterson Institute
newsletter

The Newsletter for Paterson Institute for Cancer Research

Paterson welcomes the new students

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CANCER RESEARCH UK

Director's Introduction

We are coming to the end of another very busy year for the Institute, one that has seen significant new recruitment of Group Leaders and further investment in our research services. Since the last Newsletter, two Group Leaders namely Tim Somervaille and Nullin Divecha have arrived and are busy setting up their research groups. You will find more information on Tim's group in a featured article in this issue and Nullin's group in the Spring Newsletter. Both will strengthen our research portfolio considerably and help to maintain the momentum of the Institute in building its international presence and recognition. Further recruitment is underway and we will be interviewing potential candidates in the New Year.

Refurbishment of accommodation for a number of our research service units will take place over the next couple of months, hopefully with as little disruption to the excellent services they provide as possible. This is necessary to facilitate expansion of the services such as a state-of-the-art mass spectrometer which will be arriving shortly. These developments reflect our commitment to ensure that our services remain at the cutting edge supporting our research efforts. This commitment very much depends on the leadership of our service units as well as the technology and therefore we are happy to welcome Morgan Blaylock who will head the Flow Cytometry facility – you can read all about Morgan in this issue.

Finally I would just like to take the opportunity to wish everyone a Happy Christmas and a great New Year and to thank you all for all your hard work and efforts for the Institute over the last year.

Nic Jones
Director

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Top Fundraisers visit the Institute

by James Dunphy

Susan Valentine and her niece Alice Benn took part in Race for Life at Heaton Park in June of this year and between them raised a fantastic £1000 for Cancer Research UK.

They decided to take part following their family's experience with cancer. In 1992 Susan's eldest sister Anita Clark died from ovarian cancer aged 48. In 2006, Susan's other two sisters, Georgina Hart and Lorraine Benn (Alice's mum) were also both diagnosed with ovarian cancer. Georgina is currently undergoing chemotherapy and Lorraine completed her treatment in May 2007 and is making a good recovery.

As the top individual fundraisers of the event they were invited along with Lorraine to spend the morning at the Institute. As well as receiving a personal thank you from Professor Nic Jones they were given a tour of the research facilities. The family thoroughly enjoyed their visit to see where the money is being spent and the challenges faced in research.

Following the visit they stated it was inspiring to see where the money goes and they vowed to raise even more money for Cancer Research UK at their next Race for Life event in 2008.

Thanks to Nic, Steve Bagley and Helen Ferns for their support of this successful event.

Forthcoming CR-UK activities

by James Dunphy

Christmas is an extremely busy time for the Cancer Research UK retail shops. In 2006/07 they raised £64 million. Our shops rely almost entirely on the generosity of their local communities, as customers and volunteers, but also as donors of good quality saleable stock. If you would like to donate your time as a volunteer or donate some stock please see James from Project Local.

January is a particularly significant month for the Charity with the launch of two of it's most important income generating events; Race for Life and Relay for Life.

Race for Life is a 5km women only walk, jog or run which takes places at over 250 venues across the UK (including 40 in the northwest). So far, over two million women of all ages have run, walked or jogged to raise over £140 million in sponsorship for the charity. This year they hope to raise £60 million for Cancer Research UK by bringing an amazing 800,000 women together.

Relay For Life is an inspirational community event designed to celebrate the lives of people touched by cancer and raise money for the vital work of Cancer Research UK. Teams of people gather at race tracks, parks or sports fields and take turns walking or running laps. Each team tries to keep at least one member on the track at all times, whilst all around them a party is in full swing, including stalls, live music, quizzes and dancing.
For more information about these events visit:
www.raceforlife.org www.cancerresearchuk.org/relay/

Paterson welcomes the Leukaemia Biology Group

by Tim Somervaille

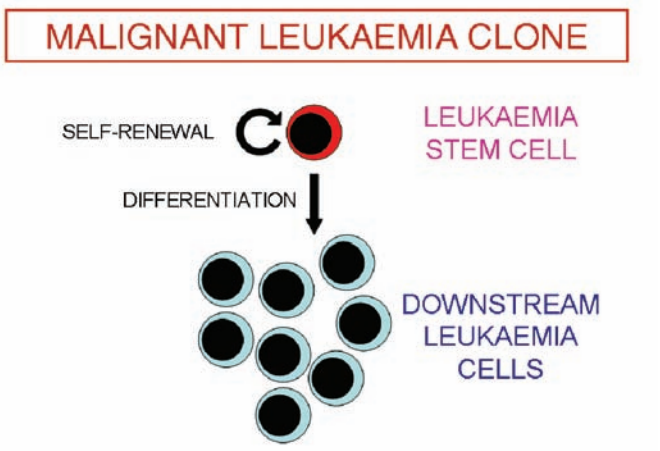
"Consequently, there is a considerable need for better understanding of the basic biology of the disease, which will in turn enhance the prospect of improved treatments for patients."

Approximately 3-5000 people develop acute leukaemia each year in the United Kingdom. In recent years there have been some important advances in treatment of the disease, most notably in children with acute lymphoblastic leukaemia where over 80% are cured. However in adults the average five year survival is only 20-25%, rising to around 45% in those under the age of 50. Consequently, there is a considerable need for better understanding of the basic biology of the disease, which will in turn enhance the prospect of improved treatments for patients.

I have recently moved to the Paterson Institute and Christie Hospital to start my own research group in Leukaemia Biology. One of the areas I plan to focus my work on is the biology of the leukaemia stem cell (LSC). Pioneering work by John Dick and others in the 1990s showed that only a subset of cells within a malignant leukaemia clone has the ability to initiate, sustain and expand the disease (see Figure). These so-called LSCs are the critical cellular component of the disease and they must be completely eliminated in order to cure the patient. Failure to achieve this results in disease relapse and treatment failure. Despite this discovery being reported some ten years ago, there is still much more to be learned about the mechanisms that regulate the aberrant self-renewal, proliferation and differentiation properties of LSCs in haematological malignancies.

My career to date has alternated between the clinic and science. I trained as a clinical Haematologist at University College London, taking three years out along the way to complete a PhD with Asim Khwaja and David Linch, studying signal transduction mechanisms in normal human haematopoiesis. I then moved to Mike Cleary's Lab at Stanford University in the United States as a post-doctoral fellow, where I developed a mouse model of human leukaemia initiated by an oncogenic fusion protein called MLL-AF9. This fusion occurs in about 7% of human acute myeloid leukaemias and the model has enabled the study of LSC biology in a genetically homogeneous tractable system for the first time.

Although I have been told that there are not that many people who have voluntarily relocated from California to Manchester (!), I am very happy to be back home in England, where people seem to understand my sense of humour, even though the weather here is perhaps not quite as good as I have become used to. I am now very much looking forward to developing some of the ideas I have in partnership with my new scientific and clinical colleagues.



Paterson welcomes the Inositide Laboratory

Nullin Divecha and his laboratory joined the Institute from NKI, Amsterdam.

The aim of the laboratory is to understand how phosphoinositides are modulated and used as second messengers in different subcellular compartments.

A full feature on the new group will be in the next edition of the newsletter.

Paterson welcomes Morgan Blaylock - Head of Flow Cytometry

by Morgan Blaylock

Flow cytometry is a relatively simple technology that simultaneously measures and then analyses multiple physical characteristics of cells, as they flow in a fluid stream through a beam of light. The properties measured include a particle's relative size, relative granularity or internal complexity, and relative fluorescence intensity. However, in practice there is a whole heap that can go wrong.

The Paterson Institute has a long and distinguished past in flow cytometry. The first cytometer in the building was a home made one (made by Dr John Keene and Brian Hodgson) circa 1977. This was used to measure fluorescent polarisation as part of an early detection test for Cancer. Since then we have seen a number of instruments come and go.

My career to date: Originally from Newcastle I spent my undergraduate days in London working for a while as a student at the Kennedy Institute of Rheumatology were I managed to get my hands on my first cytometer. I then moved to Aberdeen, taking up a PhD where I worked alongside Professor Nigel Webster and Dr. Helen Galley studying the role of endothelial cells and neutrophils in sepsis. During which time I became extremely familiar with flow cytometry, specifically its application to the field of apoptosis research. Following this, I spent the next few years working as a trainee PI in the field of asthma and allergy under the tutelage of Dr. Garry Walsh studying eosinophil apoptosis and steroid resistance. At this time I was approached to head up the new cytometry facility in the University of Aberdeen. We had recently bought a FACSDiVa and LSRI and they were looking for someone to take on the responsibility of the facility and drive it forward, while becoming the local 'guru' in all things FACS related.

I have been at the Paterson for a little over a month and I hope to make an impression on the research and direction the facility is heading (not to mention a quite large impression on Jenny's budget). My door is open to all and I look forward to meeting you and discussing your Cytometric needs.

All the best
Mogs

New Students

Mariam Al-Mufta

Hi, I'm Mariam. I just started my 3 year PhD as a joint student with the Medical Oncology and Immunology groups and will be working on 'targeted cellular therapy versus 5T4 oncofoetal antigen'. I'm originally from the beautiful land of Qatar, finished my undergraduate degree in Wales and my MRes at Manchester University. My passions are painting and drawing, travelling and eating (especially Arabic food!).

Guilherme Costa

My name is Guilherme (I know it isn't easy to pronounce) and I'm from Portugal. I started a 3 year PhD last September in the Stem Cell Biology Research group and so far, so good. Regarding Manchester, I find it a cool and lively city. I've already enjoyed a couple of evenings out at Matt & Phreds and at the Corner House, but I guess there's a lot more to discover. That's all folks!

Asli Devrekanli

Hello, I am Asli and I am from Turkey. I studied Molecular Biology and Genetics (BS) and I started my PhD in the Cell Cycle Lab working on cytokinesis. I am very happy to be at the Paterson as everyone is kind and friendly which makes me feel 'at home'. I believe I will have great time here.

Monique Melis

Hi, I am Monique Melis from the Netherlands. I only moved here mid-July and started as a PhD student in Tim Illidge's Targeted Therapy Group in August. Besides work, I play hockey at Didsbury and am busy discovering Manchester!!

Erik Marcelo Alcantar Orozco

Hello, I just started a 3-year PhD in the Medical Oncology group. I am originally from sunny Mexico where I studied Medicine. I arrived here in September 2006 sponsored by my Government to do an MRes degree in Life Sciences and a PhD. I am now working with Dave Gilham as my supervisor, and my project is focused on tumour infiltrating lymphocytes for melanoma immunotherapy.

Olga Tsoulaki

I am Olga Tsoulaki from Greece. I did my medical degree in Thessaloniki, an MSc course at the University of Leicester last year and I am now working in the Stem Cell Biology group here at the Paterson. So far I am enjoying every moment of my PhD here in Manchester inside and outside the lab and hopefully it will go on like this until the very end.. Three more years to go...

New Students

Jacek Walczynski

Hi, my name is Jacek. I've just started a 4-year PhD in Nic Jones' Cell Regulation Lab. My research project will focus on investigating the role of stress-induced transcription factor ATF-2 in the progression and development of tumours, especially B cell lymphomas. I finished my Master's Degree at the Jagiellonian University in Krakow - a truly beautiful and historically interesting city in the South of Poland. I hope to enjoy and make the most of living in Manchester, as it has a lot to offer for someone like me (e.g. the vibrant nightlife!).

Lu Zhang

I am from China and working in the Cell Regulation Group. I did my undergraduate degree in Manchester as well, and quite enjoy the life here. Outside science, I like sports a lot, such as basketball, football and badminton which are my favourites.

Andrzej Rutkowski

My name is Andrzej Rutkowski and I come from Poland, where I studied for 5 years altogether at the Jagiellonian University. I spent a year in Germany as an Erasmus student. I started a PhD at Jagiellonian University, but after a year, for many reasons, I decided to quit and find a new one. This led me to Peter Stern's Immunology Group at the Paterson Institute. I will be officially registered as a PhD student in January 2008, when I will start a project supervised by both Peter and Crispin. Apart from science, my biggest passion is music, although I don't play any instrument. I grew up listening to classical music, Beethoven and Mendelssohn being my favourite composers. A few years ago I fell in love with the music of Tori Amos and she is without doubt my biggest idol.

Willem-Jan Keune

Hi, my name is Willem-Jan Keune. I just moved from Holland to join the rest of Nullin Divecha's Inositide group. I started my PhD at the Netherlands Cancer Institute in Amsterdam and I will continue my project on PIPkinases in my 3rd year at the Paterson. If you fancy Dutch stroopwafels, you are more than welcome to visit us on the 2nd floor!

Clair Thomas

I have recently started a PhD in the Genito Urinary Cancer Research group in the KK, under the supervision of Mick Brown. I lived in Manchester for four years, during which time I obtained a first class degree in biology and an MRes in biological sciences. I have recently moved back home to Sandbach, Cheshire, where I am enjoying the low cost of living, as well as my Mum's cooking!

Not pictured:

Ciara O'Brien

Always difficult to write about yourself! Currently working in the Breast Biology group, I am a Medical Oncology Registrar on the North West rotation. Originally from London, I have now become a converted Northerner after living and working in Manchester for the past couple of years.

Gireesh Kumaran

Hi I'm Gireesh, I'm working with Caroline Dive and Gordon Jayson in CEP where I am killing tumour cells with GSAO. I used to work at the Christie as a medic and I will be going back there when my project is finished. I like to go running, cycling etc, but I don't! Instead it is a case of walking to the pub and drinking Belgian beer!!

Should we all ASPIRE to better management?

by Stuart Pepper

When you think of management training courses there are certain clichés that spring to mind such as artificial (and ever so slightly embarrassing) role-playing situations or team-building activities like paintballing. The Aspire development programme operates in a rather different way with the focus being on individuals setting their own learning goals and then practicing them whilst engaged on real tasks.

The start point for Aspire is for each participant to collect verbal feedback from coworkers on their communication style and ability. Sitting down face to face with people and asking for honest feedback is not something that we are used to doing at work and the prospect of doing this is slightly daunting. In practice these sessions can be very interesting, sometimes revealing a gap between your perception of workplace communications and the perception of those around you. Collecting feedback brings awareness of these issues, from there on the aim of Aspire is to help participants develop better communication tools.

The next step in the Aspire program is a two day residential meeting referred to as 'workout'. During this time each person picks some specific learning goals to work on, for example one of mine was to practice phrasing questions in a way that does not lead towards a certain answer. Participants are then split into groups and given a task to perform; our group was considering ways in which the development of management potential throughout CR-UK could be enhanced. One of my particular tasks was to try and bring greater awareness of courses like Aspire to scientists and managers who may not be

aware of them, so everyone who has read this far has helped me achieve my goal – thank you!!

The workout session is an important aspect of the Aspire program, however it is not the end. Aspire offers a range of activities to follow up and help participants develop their management abilities. It is easy to be cynical about management training courses, however I would say that what this program does achieve is to enhance participants awareness of the choices they can make in communication, and how this affects those around them.

The are numerous Learning and Development courses available; these are aimed primarily at Cancer Research UK employees; however staff funded by Cancer Research UK but employed by third parties may still be eligible to attend. Anyone interested in these courses should in the first instance speak to their manager and then contact Sarah Burns at Cancer Research UK for further information.

Student Social

by Katalin Boros & Dorota Feret

The "student social" has become one of the highlights of the student year (surpassed only, of course, by the excitement of 1st and 2nd year talks, reports and pre-vivas...) and so we couldn't let 2007 end without a night out together! Apart from being a break from literature-review writing and everyday lab work, this was also an opportunity for some of the most recent students to meet everyone else. Twenty-six of us headed to the Parrs Wood Centre for a game of bowling, followed by a round of pool, while those feeling especially energetic entertained the rest with an attempt on the dance machine! Dinner was in nearby East Didsbury, and the Turkish meal proved very tasty - though most of us probably wouldn't be able to recite the original names of the dishes. Thankfully, the staff was very helpful in sorting out our requests, even with those made on the spot! We hope everyone enjoyed the night. See you at next year's event!

HR Update - Wintertime stress, struggles and the EAP

by Anna Haylock

Everyone thinks of Christmas as the most stressful time of the year but according to several Employee Assistance Programme (EAP) Providers, more people call for help in January than most other months.
Dr. Cliff Arnall, a psychologist, devised a formula that calculates misery and found that in the UK, 24th January is the most depressing day of the year. He proposes that it's a combination of seven variables: weather, debt, monthly salary, time since Christmas, time since failed quit attempt (as in an attempt to quit smoking, drinking, eating poorly), low motivational levels and the need to take action. He states that the stress and struggle of all these variables culminate in the middle of January.
And how does that relate to the EAP? Depression and financial worries are two of the most common reasons employees call.
A recent research project across the UK examined EAP access patterns for the month of January 2007 of 138,933 employees in 806 organisations. The key findings of the report show that:

- There are 15% more EAP contacts in January compared to the rest of the year (51% more than December alone).
- January is associated with more issues regarding marriage and relationships (10% to 42% more), and family (14% to 37% more).
- Reports of mental health problems also rise in January, including anger (12% more) and depression (7% more).
- Reports of physical health problems such as medical stressors (13% more) and weight management (10% more) rise in January.
- Other January increases were found for reports of debt and credit (39% more), career (28% more), and life transition issues (15% more)

As an employer, we have a duty of care to our staff. All these personal concerns are influencing the ability of employees to do work and this affects co-workers and the organisation as a whole. We want to provide our staff with the very best help and support we can. This is why we are so proud of the EAP. Run by PPC, the EAP is available any time day or night, on any day of the year and can be used by you or anyone in your household. We can all benefit from the right help and advice at some time in our lives. The EAP provides free and confidential services on the following topics:

- General information and Citizens' Advice services (anything from consumer issues to residency advice)
- Financial advice
- Legal advice
- Child and dependant care information
- Counselling, both on the telephone and face-to-face

They aim to answer your query there and then or link you with the right adviser for more specialist advice. They will give you the opportunity to meet one of their fully qualified counsellors near to your home or to the Institute. There is no limit to the amount of times you can access the service.

You can contact them on 0800 282193 or you can visit this link for more information http://intranet.christie.nhs.uk/departments/hr/ppc/index.htm

Just a reminder that the Staff Christmas Party will take place at 4:00pm on Friday, 21st December in the HLT. Refreshments will be served and there will be the usual Christmas Quiz, so get your thinking caps on! ALL WELCOME!

In the Spotlight

In each issue of the newsletter we feature a member of staff who will take the 'Spotlight' and answer a list of questions that we have put together. The next lucky individual to be featured is Tom Southgate, a PostDoc in the Immunology group.

What is your favourite part of the UK?
56°34.95N; 05°59.15W, 30 metres down. Sounds strange but it's the coordinates of The Hispania a 1300 tonne Swedish steamer which sunk in the Sound of Mull in 1954, that is often listed as one of the best wrecks in the world to dive. You get fantastic visibility in the strong currents that pass over it and it teems with sea life including soft corals, fishes and you often see porpoises nearby.

What is the most important lesson that you have learnt from life?
If I knew what I was doing it would not be research

What is your favourite book?
Scientific progress goes "boink": A Calvin and Hobbes collection by Bill Watterson

What is your favourite film?
True Romance (1993), the scene with Dennis Hopper and Christopher Walken is amazing. The tag line "Stealing, cheating, killing, who said romance is dead" sort of sums it up.

If you had to change careers tomorrow, what would you do?
Train to become a chef, apart from the antisocial hours its something I've always thought about doing.

What three things would you save from your burning house?
Presuming that my wife and daughter do not need to be included on this list, my dive kit, my Xbox and my photos of my Dad

What is your greatest fear?
Driving a British car on the continent. I had a huge crash, which I still have no memory of, when I was in my 20's and spent a summer in hospital. I haven't driven a British car abroad since, don't know if I ever will.

How would you like to be remembered?
Can I have a beer named after me please.

If you could change one thing in your past, what would it be?
Probably not going for that tackle in an American football match when I was 20. I broke the back of my skull and it has stopped me from ever playing contact sports again.

What would be your perfect meal?
Would have to be something Italian, I lived there for nearly 2 years. So something like spaghetti with clams, followed by rabbit in red wine but I'd probably go for selection of British cheeses for dessert instead of a sweet.

What trait do you most deplore in others?
Spinelessness.

If you had to spend £1,000,000 tomorrow, what would you do with the money?
Have an extreme sports year and dive in every sea/ocean in the world, climb a mountain on every continent, complete my freefall licence and lots and lots of skiing.

Which words or phrases do you most overuse?
I asked this question to the lab and the unanimous answer was that with the amount I speak all words or phrases are overused constantly. Think they're trying to tell me something.

What is your idea of perfect happiness?
A law being passed to ban caravans and middle lane drivers.

What keeps you awake at night?
I'm an insomniac so I'm awake a lot anyway but at this moment a small 6 month old baby with a cold is doing a fine job of keeping me sleep deprived.

Staff News

Congratulations to:

Laura Humes (HR) who successfully passed her exams at college in Employee Reward and People Resourcing. This is part of the CIPD qualification and Laura is now entering her last year, for which she must be truly grateful!.

Chris Morrow (CEP) who won the BACR/Gordon Hamilton-Fairley Young Investigator Award for his poster at the NCRI conference this year. The purpose of this award is to recognise and encourage the talents of more junior cancer researchers. The prize of £300 was awarded on the basis of the quality of both the abstract and the poster presentation.

Gail Bruder (BRU) and Graham Morrissey on their recent engagement. Graham 'popped the question' to Gail on October 7th, whilst waiting at Manchester airport to go off on holiday to Egypt. That's certainly a holiday she'll never forget.

Kathryn Taylor (CEP) and Jake Simpson, who tied the knot on 22nd September at St Wilfrid's Church in Northenden. It was a brilliant day, enjoyed by all - especially as it didn't rain.

Magdalena Przywara (Cell Cycle Group) and Tomasz Foltman on their recent wedding in the beautiful small village of Boguchwala in Poland. The wedding took place on 11th August and was followed by a wonderful party attended by all their family and friends.

Congratulations to the victorious Bar Rally team - 'Odds & Sods', which consisted of Claire, Kate, Helen and Emma. They certainly seemed to be having a good time!

Colin Gleeson (Health & Safety) and his wife Ru on the birth of their first child, a beautiful baby daughter, Maya Rose. Maya came into the world on 7th October, weighing 7lb 5ozs!!

The Biotechnology YES (Young Entrepreneurs Scheme)

by Andrei Ivanov

The Biotechnology YES (Young Entrepreneurs Scheme) – sponsored by the Biotechnology and Biological Sciences Research Council - is an innovative training programme organised by the Biotechnology and Biological Sciences Research Council (BBSRC) and the University of Nottingham Institute for Enterprise and Innovation (UNIEI).

It helps young researchers understand how to set up their own biotech company by developing business awareness and the skills needed to be successful entrepreneurs. This year 64 UK teams have competed for the opportunity to present at the final in London – the winners walked away with the sought after Biotechnology YES 2007 title, £1,000 in cash, a sponsored table at this year's Biotechnology Industry Association dinner and the chance to present their idea at a prestigious US business plan competition.

The team comprising Katalin Boros (Stem Cell Research group), Andrei Ivanov (Targeted Therapy Group), Annie Watt (Medical Oncology), and Carla Moller (Bioinformatics Group), represented the Paterson Institute at the recent Central region round held in Manchester. The hypothetical company, "SensoMem Technologies", came up with the "BactoSense" strip, a sensor membrane that allows early detection of bacterial contamination within the intravenous lines attached to patients. The judges' feedback was excellent but the competition was extremely fierce and unfortunately the team didn't make it through to the final. However, extensive training received within the scheme makes participation 100% worthwhile and we would strongly advise colleagues to take part in next year's competition.

Bar Rally

by Claire Rooney

This year's Paterson Bar Rally saw nine teams of "Gangsters and Molls" hit the town. Various city centre bars indulged in our colourful company before we hit the dancefloor at the Fab Café as a blur of feather boas and trilbies. Quick off the mark, the DJ provided us with some classic twenties tunes and some very enthusiastic dancing ensued. Congratulations go to Odds'n'Sods (see page 11), who showed great determination in answering the most questions in the eight bars en route, scooping first prize. Guys and Dolls fought off stiff competition to pick up the best fancy dress prize. A great night was had by all, and a big thank you goes to all those who took part. We look forward to the next Bar Rally, to be organised by the proud recipients of the wooden spoon, Dos Lipidos; representing the Inositide Laboratory.