

SCHOOL OF

Pharmacy & Pharmaceutical Sciences

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Dear Colleagues and Friends,

Welcome to this edition of Elixir. The highlights of the first part of year included our preparations for the accreditation visit by the Pharmaceutical Society of Ireland (PSI). We gave a very good account of ourselves to the PSI visiting team and I am grateful to everyone in the School for their valuable contributions.

Prof Marek Radomski,

Head of School

We were also very active on the research front, as exemplified by the success of our Pharmacy Research Day and individual achievements of our PIs in securing prestigious grant awards.

To our departing 2013 Senior Sophister Year I would like to extend words of sincerest congratulations and encouragement in your pursuit of professional pharmacy careers. Please stay in touch with us as prized alumni and make us proud, wherever the road may take you.



As we are now heading towards the summer break I would like to wish you all relaxing vacations and well-charged batteries for the second part of the year.

I am delighted to greet a new Editor of our school newsletter, Ms. Gráinne Curistan. Gráinne, our new Global Officer, has taken over from Assoc. Prof. Lorraine O'Driscoll and I am very grateful to Lorraine for editing the Elixir in the past few years.



Research

Recent SFI grants

Asst. Prof David Finlay and Prof Anne-Marie Healy, two researchers from the School of Pharmacy and Pharmaceutical Sciences have been awarded funding from Science Foundation Ireland under its Investigators Programme for the following projects:

Asst. Prof Finlay: *Characterising the role of mammalian target of rapamycin complex 1 (mTORC1)/ Srebp1c signaling in directing the differentiation and function of T cell subsets.*



Featured in photo:
Asst. Prof David Finlay

Prof Healy: *Co-processing of active pharmaceutical ingredients with functional excipients to prevent unintentional generation of amorphous phase.*

Prof Anne-Marie Healy and Asst. Prof Lidia Tajber are investigators in the **Synthesis and Solid state Pharmaceutical Centre (SSPC)**, one of seven new, large-scale, world-class research centres which will receive a total of €200 million of Science Foundation Ireland (SFI) funding, coupled with over €100 million in cash and in-kind contributions from industry partners, over the next six years.



Featured in photo:
Prof Anne-Marie Healy

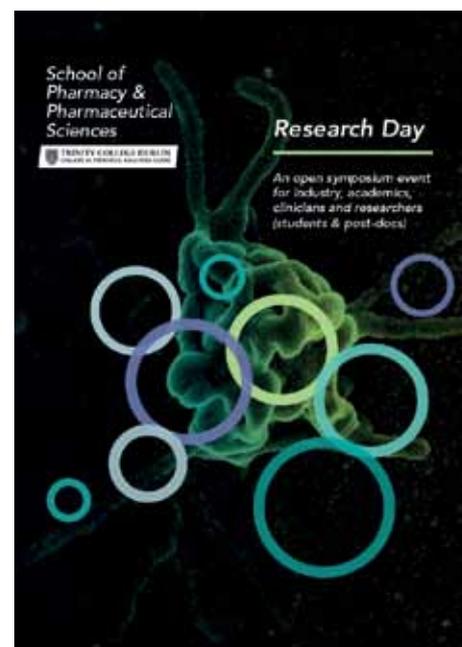
The SSPC is a unique collaboration between 19 companies and 8 academic institutions and will position Ireland as a global hub for pharmaceutical process innovation and advanced manufacturing. Building a core capability in the area of process R&D, it will serve to cement the pharmaceutical industry in Ireland. Researchers in TCD's School of Pharmacy and Pharmaceutical Sciences will be involved in two of the three research strands of the SSPC: Crystal Growth and Design and Drug Product Formulation and Manufacture, with Prof Healy acting as Strand Leader of the latter alongside Prof Gavin Walker from the University of Limerick.

Prof Healy is also a funded investigator in another of the research centres recently announced by SFI - **AMBER: Advanced Materials and BioEngineering Research Centre**, led by TCD. AMBER will deliver world-leading research into engineered materials and interfaces for applications in a number of priority sectors in Ireland such as ICT, medical devices, and industrial technology.



Featured in photo:
Asst. Prof Lidia Tajber

January Research Day



An open symposium event for industry, academics, clinicians and researchers (students and postdocs) took place in January 2013 at the Trinity Biomedical Sciences Institute. This event included a keynote address by Dr Alan Moodie, Vice President of External Engagement, Glaxo Smith Kline. This was followed by a Festschrift in celebration of Prof Owen Corrigan's (former Prof of Pharmaceutics) distinguished career and a series of very interesting flash research presentations from the School of Pharmacy and Pharmaceutical Sciences Principal Investigators.

EU funding

Director of Research and Assoc. Prof Lorraine O'Driscoll, has recently established that –in cancer– many adverse events can be communicated from cell to cell by tiny, often nano-sized, packages known as exosomes and microvesicles. These small particles, which can be detected in the blood, seem to carry information that contributes to cancer cells spreading to secondary sites and the development of resistance to the benefits of anti-cancer drugs; to name but a few of the problems with which they are associated.

Recent results indicate that targeting these bundles of messages may offer new opportunities to add benefit to both classical chemotherapy and newer targeted drugs such as Herceptin. Lorraine now leads an International Network focusing on

Microvesicles and Exosomes in Health and Disease (ME-HaD). This consortium, funded by EU FP7 (2013-2017), brings together researchers from universities and hospitals in 22 European countries, the US, Australia, as well as 7 industry partners.

Irish Cancer Society

As TCD's Principal Investigator on SFI-supported **Molecular Therapeutics for Cancer Ireland (MTCI)**, Assoc. Prof Lorraine O'Driscoll and her research group are also working with Prof John Crown (lead Principal Investigator, St. Vincent's University Hospital (SVUH)) to translate their bench-based observations to patients suffering from breast and prostate cancer. The clinical trials, co-led by Assoc. Prof O'Driscoll and Prof Crown, arising from this research are currently progressing through human trials facilitated by the **Irish Cooperative Oncology Research Group (ICORG)**.

As a truly national extension of collaborations established as part of MTCI (with SVUH, St. James's Hospital, DCU, UCD, RCSI + 6 big Pharma companies), and including new links with NUIG and UCC, the Irish Cancer Society has recently granted funding for a National Virtual Cancer Centre named **Breast-Predict**. An objective of Breast-Predict is to further progress the

reality of precision medicine for breast cancer patients. This national centre will be led by Prof William Gallagher, UCD. Lorraine, together with Prof Jochen Prehn (RCSI), will lead Breast-Predict's Strand dedicated to Pathophysiological Validation of Signature-Based Prognostic and Predictive Biomarkers.

Spinout Company

Two School of Pharmacy and Pharmaceutical Sciences Principal Investigators, Assoc. Prof Neil Frankish and Assoc. Prof Helen Sheridan, are co-founders of Trino Therapeutics, which is a drug discovery and early drug development company focused on anti-inflammatory therapeutics. Trino Therapeutics was in the news in early June following its recent success in securing €9m in Series A funding for the development of a breakthrough drug for the treatment of Inflammatory Bowel Disease (IBD).

The funding was secured from new investor, Fountain Healthcare Partners and founding investor, the Wellcome Trust. The new funding from the Wellcome Trust was in the form of a Strategic Translation Award, their most prestigious grant in translational medicine. The funding will allow Trino to put its lead drug candidate - PH46A, a "first in class" therapy for inflammatory bowel disease through early stage safety trials and then into Phase IIA clinical trial to test its efficacy. Trino Therapeutics, is a Trinity spinout company formed in 2011 and its laboratory is located in the School's building on Level 2.

www.trinotherapeutics.com



Remember.

The power of a legacy to Trinity

There's an old saying that the true meaning of life is to plant trees under whose shade one does not expect to sit. When you leave a legacy to Trinity however big or small, you're planting a tree which will grow to provide shelter to many. You're empowering ground-breaking research which will benefit people in Ireland and all over the world. You're supporting students from all backgrounds to access a Trinity education. You're helping preserve our unique campus and heritage for new generations.



When you remember Trinity in your will, you join a tradition of giving that stretches back over 400 years – and reaches far into the future. For more information about leaving a Legacy to Trinity, please contact Eileen Punch.

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International News

Claire Corcoran talks about recent time spent in the Dana-Farber Cancer Institute (DFCI) in Boston.



Featured in photo:
Claire Corcoran

In September 2012 I embarked on a trip to the Dana Farber Cancer Institute (DFCI) as part of a short term travel fellowship awarded to me by Science Foundation Ireland. DFCI is one of the leading centres for cancer research in the world, so having the chance to not only experience the research on-going in a centre of such high calibre, but also the potential to further advance collaborations between Trinity and DFCI, was a very exciting opportunity for me.

I work under the supervision of Assoc. Prof Lorraine O'Driscoll in the School of Pharmacy here in Trinity College and my Ph.D. investigates intracellular and extracellular biomarkers predictive of

response to anti-cancer treatments for breast and prostate cancer. Dr Irene Ghobrial (based in DFCI) invited me to spend 3 months in her lab which focuses on malignancies that disseminate in the bone marrow such as Multiple Myeloma and, similar to our group, Dr Ghobrial has an interest in the role of microRNAs and exosomes in regulating cancer progression and treatment response.

During my time in DFCI I learned a lot about how a US lab operates and how it differs to an Irish based lab. I met the most inspiring people, learned about and experienced some of the most exciting research currently undertaken in Harvard, all while enjoying the US lifestyle.

Emer Browne -
University of
Southern
California,
LA, USA.



After applying to take part in the summer research project scheme, I was delighted to learn that I would be heading off to the University of Southern California, Los Angeles for my JS summer. I was assigned to the lab of Dr Daryl Davies, who is investigating molecular sites of alcohol action on purinergic receptors. The aim is to discover novel compounds in the treatment of alcoholism. One strand of this research is the use of the antiparasitic ivermectin in the treatment of alcoholism, which is moving into clinical trials in the near future.

I am really enjoying the research, which is varied and interesting. A typical day may involve anything from immunofluorescence assays, retrieving frog oocytes or running Western blots. The researchers have been very supportive and are more than willing to answer my (many!) questions. There are several other summer students in the lab, so luckily the atmosphere is relaxed and friendly. Overall I would highly recommend the experience; it gives you an insight into pharmaceutical research balanced with a chance to see a bit of the world.



Rebecca Gregan University of Montpellier, France.

I undertook my research placement in the University of Montpellier in the Facultie d'Oenologie or en Anglais 'Wine Studies Department'. I am now into my fourth week here and my work involves the use of HPLC and UV spectroscopy to analyse the amino acid content of vine samples grown under varying temperatures.

This is part of a much wider project called Duravitis being co-ordinated among numerous Universities in France to observe the effects of variations in temperature on all aspects of grape vine development. As temperature increases have been shown to alter wine taste, this project aims to establish the effects that climate change will have on wine production. As anyone who has enjoyed a good Chardonnay knows, viticulture is an integral part of the French culture, hence the importance of this project. I am gaining an invaluable insight into one of the less traditional avenues that a Pharmacy degree can take you, and loving it!

Interview with Mark English, a Senior Sophister student, who worked on a project in Brazil.



You went to Brazil? When and why?

I have spent the last 2 summers (2011 and 2012) in Rio De Janeiro. During my time in Rio De Janeiro I completed a placement in a pharmacy, worked on a specific project in the University of Sao Paulo and also undertook a course in Practical Pharmacology. The title of the project was "Anti-nociceptive evaluation of Buddleja davidii flower extracts", which has been submitted to the Journal of Ethnopharmacology.

How did you find out about it?

In second year I really wanted to do an Erasmus in Spain as I had lived there and had Spanish. When I realised this wasn't immediately possible, I contacted Asst. Fabio Boylan who has contacts in Brazil. Asst. Prof Boylan made all the arrangements including the placement in a pharmacy in Rio and my registration on to the course in Practical Pharmacology

How do you think you have benefited from the experience?

The culture in Brazil is incredible. The people are really nice and the quality of life is great, however there is a lot of poverty in Brazil. I made the most of the free events, such as a Jazz night, or festival, movie on the beach, which take place throughout the week. I think everybody should travel at some point, especially to countries where the culture and language is different.

Do you plan to get involved in projects like this in the future?

Yes, it's a requirement. I intend on; applying for jobs in companies that are very international, with offices in many countries or ideally companies that require spanish or portuguese speakers. I'm very proud to have gone to Trinity, I think it's a great University.

Staff, Students, Alumni

Retirement Evening in January

In January 2013, four renowned members of staff from the School of Pharmacy and Pharmaceutical Sciences were given a retirement night to remember. The event took place in the Front Dining Hall and was followed by the Student Awards. The event was attended by the Dean of the Faculty, postgraduate students, members of staff, alumni and family and friends of the retirees.



Featured in photo:
Retirement and student awards
event in the Dining Hall

Prof Ingrid Hook

Scientist and legislator, Prof Hook has been involved in research of the highest standard, throughout her academic career and has held many positions of responsibility within College including Head of School, as well as membership and chair of numerous committees. Ingrid currently holds a position on the Comhairle na Nimheanna (Poisons Board) and represents Ireland on the Scientific Committee of European Scientific Cooperative on Phytotherapy. During the course of her career Prof Hook secured EU funding when it was a distant dream for researchers in general. Prof John Walsh said that Ingrid's contribution to the School of Pharmacy and Pharmaceutical Science "may have been equaled but certainly hasn't been surpassed".

Prof John Clancy

Prof Clancy officially retired from College in September 2008 having spent over 40 years in academia. His specialist lecture topics were Pharmaceutical Analysis and Regulatory Affairs, both areas in which he is a recognised expert and consultant to the pharmaceutical industry. Although Prof Clancy retired from a full time position in 2008, he is still very actively involved in the delivery of several postgraduate taught courses, in particular the M.Sc. in Pharmaceutical Analysis which John was responsible for designing and introducing to the School. Prof Clancy played a key role in modernising the Pharmacy curriculum. With reference to the fact that he was sharing the retirement platform with two of his former students, his final comment was that he was leaving the occupation with "no small sense of pride and a great sense of hope for the future".

Prof Des Corrigan

Prof Des Corrigan officially retired from College in September 2008 after dedicating over 40 years to the profession of Pharmacy and academia, in particular. Over the years Prof Corrigan has been a highly regarded teacher within College to both undergraduate and postgraduate students. Prof Corrigan became an expert in the area of Pharmacognosy, which includes Phytotherapy and Herbal Medicine, as well as drugs and drugs of abuse. He has excelled in raising public awareness on drug abuse. Prof Corrigan was, and still is, a member of many national and international committees including the government advisory committee on Herbal Medicine and has acted as an advisor to the Oireachtas in his capacity as Chair of the National Advisory Committee on Drugs. Prof Corrigan's final comment was a quote by Voltaire 'I advise you to go on living solely to enrage those who pay your pension'.

Prof Owen Corrigan

In 1977, the same year the School of Pharmacy and Pharmaceutical Sciences became part of Trinity, Prof Corrigan, together with John King from Queen's University Belfast, initiated the All-Ireland Schools of Pharmacy Research Conference, which still runs today. Prof Corrigan was the first and to date the only Chair of Pharmaceutics in the School, taking up the Chair in 1991. He was also the first elected Trinity Fellow from the School of Pharmacy. Prof Corrigan was co-inventor of the first nicotine patch, marketed by Elan Pharmaceuticals. In reference to all that he has given during the course of his career to students, colleagues, the School of Pharmacy and Pharmaceutical Sciences and his contribution to Trinity College and beyond in the field of Pharmaceutics, Prof Anne-Marie Healy quoted Wintson Churchill "we make a living by what we get but a life by what we give". The money contributed towards a gift for Prof Corrigan will be used to commission a portrait that will be displayed in the School of Pharmacy and Pharmaceutical Sciences.

Election of Fellows and Scholarships

Trinity Week began on Monday, 8 April in Front Square with the announcement of new Fellows and Scholars by the Provost, Dr Patrick Prendergast.

Congratulations to Assoc. Prof Carsten Ehrhardt who was recently elected to Fellowship. Assoc. Prof Ehrhardt has also been elected Chair of the Imaging, Modeling, and Physiology of Aerosols in the Lung Focus Group of the International Society of Aerosols in Medicine.

Congratulations also to the five Senior Freshman Pharmacy and Pharmaceutical Sciences students elected to Scholarship: Mena Eskander, Susanne Farrell, Aisling Kerr, Jordan Nally and Kate O'Donnell.

Congratulations to Keith O'Brien, Ph.D. Student who won Best Oral Communication at the 'Irish Association for Cancer Research' annual meeting, 2 years in a row.

Congratulations also to Cathal Cadogan for winning a 2013 Trinity Teaching Award for Postgraduate Students.



Featured in photo:

Senior Sophister Leaving Party May 2013 Trinity students celebrate completing their B.Sc. in Pharmacy and joining the alumni community

Student Awards in January

Paul Higgins Memorial Prize – Cahill May Roberts Ltd Prize in Pharmaceutical Chemistry.

Winner: Anne-Marie Carroll, Senior Sophister

Pfizer Healthcare Ltd. Prize in Pharmacology.

Winner: Katie Timoney, Senior Sophister

Sanofi Prize.

Winner: Anne-Marie Carroll, Senior Sophister

Alumni Prize.

Winner: Louise Gavaghan, Junior Sophister

LEO Pharma Prize in Pharmaceutics.

Winner: Anne-Marie Carroll, Senior Sophister

Pfizer Healthcare Ltd. Junior Freshman Pharmacy Prize.

Winners: Eibhlín Catherine, Mary Fitzpatrick and Kate O'Donnell. Junior Freshman

McNeil Pharmaceutical Prize.

Winner: Anne-Marie Carroll, Senior Sophister

The Actavis Academy Senior Sophister Pharmacy Prize.

Winner: Anne-Marie Carroll Senior Sophister

Congratulations

Congratulations to Darragh O'Loughlin, B.Sc. (Pharm.), (1993), on his recent appointment as Secretary General of the Irish Pharmacy Union (IPU).

Darragh is a former President of the IPU. He is also a member of the Board of the Health Information and Quality Authority (HIQA) and is Treasurer of the Pharmaceutical Group of the European Union (PGEU). We wish him well on his new appointment.

School hosted PIER Careers Evening in March, sponsored by Actavis Ltd.

The School hosted a Careers Evening organised by PIER (Pharmacists in Industry, Education and Regulatory) in March 2013. It was open to 3rd & 4th year pharmacy undergraduate students from each of the three Schools of Pharmacy in TCD, RCSI and UCC, & to recent graduates.

The evening comprised an hour long session with pharmacists working in different areas of industry, who spoke about their experience as practitioners across a variety of pharmacy related fields. This was followed by a reception and networking event where students had the opportunity to chat to individuals working in the industry and to benefit from their experience and advice.

Upcoming Events

Trinity College Dublin Alumni Weekend - Alumni Coffee Morning

Re-live your student days by visiting the School of Pharmacy and Pharmaceutical Sciences, for a special alumni coffee morning at 10.30am on Friday, 23 August 2013. Celebrate your lifelong connection to Trinity by taking a trip down memory lane with old friends and academics over a cuppa. To book your place online, log on to:

www.tcd.ie/alumni/weekend

International Pharmaceutical Conference

The International Pharmaceutical Federation (FIP) will host its Annual Congress in collaboration with the Pharmaceutical Society of Ireland (PSI) and its Irish partners in the Autumn, 30th August – 5th September. The conference theme is "Complex Patients", which advocates an increasing role for pharmacists in the management of complex patients and provide an extensive platform for learning and growth in order to achieve this goal. TCD School of Pharmacy and Pharmaceutical Sciences staff, students and alumni are involved in a number of the conference sessions. The FIP conference is also one of the events of The Gathering 2013. The conference is currently open for registration and more details can be found on the conference website:

www.fip.org/dublin2013/Dublin/2033/Welcome

Stay in Touch

Get connected with Front Gate Online. Update your details, search and contact fellow alumni, register for events, join the career network and other groups, all in one place!

Register today!

www.tcd.ie/alumni/frontgateonline

Feedback

Your comments on this issue are welcome at edaly3@tcd.ie

www.tcd.ie/pharmacy

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