NovaUCD Newsletter

The Innovation and Technology Transfer Centre

December 2011

Dear Colleagues and Friends

Welcome to the final issue of the NovaUCD Newsletter for 2011 in which we review activities, events and news of interest during the last quarter of the year.

First of all I would like congratulate Professor Brian Glennon and Dr Mark Barrett, researchers in the UCD School of Chemical and Bioprocess Engineering and co-founders of APC Ltd, on winning the NovaUCD 2011 Start-Up Award at this year's NovaUCD Campus Company Development Programme Awards Evening.

APC Ltd, a new UCD spin-out company, provides pharmaceutical processing technologies and customised solutions to pharmaceutical companies that require the delivery of their medicines to the global market in a lean, reliable and robust manner. The company, which already includes many of the world's Top 10 pharma companies as clients, has 3 permanent staff members, and plans to be employing at least 20 highly-skilled staff within the next two-years.

I would also like to congratulate two NovaUCD client companies, Biosensia and Tethras, on their significant developments in recent months.

Biosensia, the point the point of care diagnostics company, has secured €1.2 million in new funding. This funding round, led by ACT Venture Capital, is part of the company plans to advance regulatory and commercial strategy for its RapiPlex platform in Europe and in the US. As part of this commercialisation strategy Biosensia intends to increase staff numbers by 10 within the next two-years.

Tethras, which enables app developers to easily adapt their software into over 40 languages, won the Dublin Regional Finals of the InterTradeIreland 2011 Seedcorn Business Competition (High Growth Category). Tethras has also taken on 16 new staff in the last 6-months following a very successful launch earlier this year in the US market.

The 16th NovaUCD 'Entrepreneurs Live!' seminar series, supported by the Dún Laoghaire-Rathdown County Enterprise Board, has now been completed. Over 80 entrepreneurs have now contributed to these seminars over the last number of years, which have continued to attract a large audience and stimulate lively debates on issues relating to entrepreneurship and new venture formation.

In this issue we also report on other recent developments for another NovaUCD client company, RendezVu.

On behalf of the NovaUCD team, I would like to wish you a very Happy Christmas and a Prosperous New Year.

Le gach de-ghuí don Nollaig agus Athbliain.

Please contact Micéal Whelan, e: miceal.whelan@ucd.ie if you have any comments or feedback.

Professor Peter Clinch
UCD Vice-President for Innovation

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NovaUCD 2011 Campus Company Development Programme Awards Evening

The 16th NovaUCD Campus Company Development Programme (CCDP) Awards Evening took place in a packed William Jefferson Clinton Auditorium in mid-November.

The aim of this programme is to assist UCD academic and research entrepreneurs in the establishment and development of new high-tech ventures to commercialise the output of their research activities. The programme assists participants in defining, developing and transforming their innovative ideas into sound and commercially feasible new ventures and in preparing detailed business plans.

At the awards evening, which included a new ventures showcase, the promoters of each of the new ventures delivered a short 'elevator pitch'. The promoters of three short-listed ventures then presented their business plans in more detail.

The NovaUCD Start-Up Award

The short-listing and selection of award winners was performed by an independent evaluation panel chaired by Dr Brian Kelly, co-founder, Celtic Catalysts and included Rob Corbet, Arthur Cox; Greg Hogan, Deloitte and Bernie Cullinan, CEO, Clarigen.

The guest speakers at the Awards evening were John O'Dea, Enterprise Ireland and Iain Mac Donald, CEO and co-founder, SkillPages.

A total of fifteen new ventures completed this year's CCDP bringing to 185 the number which have completed this programme since it began in 1996.

Overall Winner – APC Ltd

APC Ltd, a new pharmaceutical research and technologies company, was the overall winner of this year's programme and was presented with the NovaUCD 2011 Start-Up Award.

Ireland is currently the largest exporter of pharmaceutical compounds in the world with approximately $50 billion worth of compounds exported annually. This accounts for almost 50% of total Irish exports.

APC Ltd provides pharmaceutical processing technologies and customised solutions to pharmaceutical companies that require the delivery of their medicines to the global market in a lean, reliable and robust manner.

APC's unique solutions allow its clients to reduce the risk, cost and time to market for new and existing pharmaceutical medicines.

APC, which plans to create 20 predominantly high-skill jobs within the next two-years, was also presented with a prize fund worth a total of €17,500.

The company, co-founded earlier this year by Professor Brian Glennon and Dr Mark Barrett as a spin-out from UCD's School of Chemical and Bioprocess Engineering, already includes many of the top 10 pharmaceutical companies in the world on its client list.

Professor Brian Glennon and Dr Mark Barrett, co-founders, APC Ltd

By integrating its advanced engineering and scientific competencies APC enables pharmaceutical companies to deliver their medicines to market in a quicker, leaner, more reliable and more cost effective manner.

It does so by providing these companies with engineering and technology solutions which deliver cycle time improvements, yield and capacity increases, improved impurity reductions, better control of product characteristics and reductions in batch rejections.

APC has already hired 3 permanent, PhD qualified engineers and chemists. The company, which is generating significant revenues, plans to grow staff levels to 20 by 2013. The vast majority of these jobs will be at PhD level with individuals also having pharmaceutical technology and process development expertise.

APC has cemented its position in Ireland and already has a number of high profile Irish pharmaceutical companies amongst its clients. It has also expanded internationally and acquired clients in pharmaceutical manufacturing, research and technology divisions throughout mainland Europe and in the USA.

(l-r) Iain Mac Donald, CEO & co-founder, SkillPages, Professor Brian Glennon and Dr Mark Barrett, co-founders, APC Ltd and Professor Peter Clinch, UCD Vice-President for Innovation

APC is currently investing in technology research and development and plans to launch additional products, services and processing technologies to the market in 2013.

In addition to the Award, APC was presented with a cheque for €5,000, €6,000 worth of professional services from Deloitte, €3,000 worth of legal services from Arthur Cox, €1,000 worth of business and taxation consultancy from Delaney Financial Consultancy and NewMarket Partnership and six-months free desk space at NovaUCD.

APC will also receive a year's free subscription to AccountsIQ software which allows SMEs to manage their entire accounting requirements via the internet.

Runner-ups: ForkStream and Equilume

Two other ventures, ForkStream and Equilume, participating on this year's programme, received runner-up awards, cheques for €3,000 and €2,000 along with €2,000 and €1,000 worth of legal services from Arthur Cox respectively in addition to six-months free desk space at NovaUCD.

ForkStream a new ICT venture, is developing a disruptive technology to allow mobile network operators to cost effectively and seamlessly offload smart phone traffic to any available WiFi network. The promoters of ForkStream are Dr John Fitzpatrick and Dr Hamid Nafaa, researchers in UCD's School of Computer Science and Informatics.

Dr John Fitzpatrick, co-promoter, ForkStream

Equilume, a new equine biotech venture, is developing a novel light therapy solution, the Equilume Light Mask, to assist Thoroughbred breeders in maximising the reproductive efficiency of their mares. The promoter of Equilume is Dr Barbara Murphy, a researcher in UCD's School of Agriculture and Food Science.

Dr Barbara Murphy, promoter, Equilume

Other Participating Ventures

12 other new ventures completed the NovaUCD 2011 CCDP.

AntTweeter is developing a location-based, socially-driven question and answering service which utilises the power of Twitter to disseminate questions and answers to a wide community.

Promoter: Dr Kevin McCarthy, UCD School of Computer Science and Informatics and the CLARITY Centre for Sensor Web Technologies.

Bill Slicer is developing a software application to provide a fair electricity bill splitting method for users in shared living environments.

Promoters: Dr Seamus Rooney and Dr Antonio Ruzzelli, UCD School of Computer Science and Informatics and the CLARITY Centre for Sensor Web Technologies.

Building Risk Assessment & Management (BRAM) Consulting Engineers Ltd is providing risk assessment and risk management services for existing buildings during adjacent construction or industrial activities. In addition, it is developing associated software for converting remote sensing data into reconstructed building models.

Promoters: Dr Debra Laefer, Dr Linh Truong-Hong and Julie Clarke, UCD School of Civil, Structural and Environmental Engineering.

EcoGlan is developing services, using environmentally friendly technology, for cleaning applications in the agrifood industry.

Promoters: Dr Paddy Solan, Dr Tom Curran and Professor Colm O'Donnell, UCD School of Biosystems Engineering.

Participants on the NovaUCD 2011 CCDP

Entrepreneurshipnet aims to become a leading provider of educational discovery and personalised, curated, search aggregation tools for a global customer base of public and private academic libraries.

Promoters: Dr Rory O'Shea, UCD School of Business and Catherine Keane.

Mobifit Technologies is developing a device and associated software for monitoring exercise activity, providing qualitative and quantitative feedback of a user's exercise performance.

Promoters: Ken Taylor and Dr Chris Bleakley, UCD School of Computer Science and Informatics.

miRFUNCTION is developing microRNA protein targets to manipulate cell death in drug resistant cancer cells.

Promoter: Dr Fiona Furlong, UCD School of Medicine and Medical Science.

Novel Energy Absorption Mechanism is developing a product with a novel energy absorption mechanism which allows for impact energy dissipation in more than one direction which has multiple applications including crash helmet design.

Promoters: Dr Manuel Forero Rueda and Professor Michael Gilchrist, UCD School of Mechanical and Materials Engineering.

Phision Therapeutics has identified novel small molecule anti-angiogenic compounds that can be used as drugs to inhibit the formation of unwanted blood vessels associated with ophthalmic diseases and cancer.

Promoters: Dr Breandan Kennedy, Dr Alison Reynolds, UCD School of Biomolecular and Biomedical Science and Dr Jacintha O'Sullivan, Institute of Molecular Medicine, St. James's Hospital, Trinity College Dublin.

Scream Technologies Ltd is developing novel speech technologies for the interactive entertainment industry enabling game studios to overcome problems with voice recording, fine-tuning and playback.

Promoter: Dr Peter Cahill, UCD School of Computer Science and Informatics.

Sire Bank aims to provide a commercial sheep semen collection and storage centre for pedigree and commercial sheep farmers in

order to assist them in maximising the breeding process.

Promoters: Dr Alan Fahey and Pat Duffy, UCD School of Agriculture and Food Science.

Sustainability in Historic Buildings Simulation Software is developing energy simulation software for the analysis of the energy performance of historic buildings. This solution will allow historic buildings to adhere to energy conservation demands while maintaining their artistic, historic and cultural value.

Promoter: Florence Timothy-Afolayan, UCD School of Architecture.

NovaUCD 2012 Campus Company Development Programme

NovaUCD is now accepting applications for the 2012 Campus Company Development Programme which will commence in Q1 2012.

If you would like to participate please contact Caroline Gill.

Contact: Caroline Gill, t: 01-716 3715, e: caroline.gill@ucd.ie

Protection and Commercialisation of Intellectual Property

NovaUCD is responsible for the implementation of UCD's policies relating to the commercialisation of intellectual property and for the management of the intellectual property arising from UCD's research programmes.

A key priority of NovaUCD is to work with UCD researchers in identifying, protecting and commercialising the intellectual property arising from their research programmes and to take innovative ideas from proof-of-principle to full commercial success.

UCD 2011 Invention Disclosures and Patent Filings

Over 40 invention disclosures have already been disclosed by UCD researchers to NovaUCD during 2011.

UCD patents filed during 2011 include:

2-Phenotyping tumour-infiltrating leukocytes, Dr Donal Brennan, UCD School of Biomolecular and Biomedical Science with UCSF. A US national and PCT patent applications.

A marocyclic derivative and assemblies formed thereform, Dr Rafe Darcy, UCD School of Chemistry and Chemical Biology with UCC. A US national and regional patent application.

A method for the selective concentration of a specific low abundance biomolecule, Professor Kenneth Dawson et al, UCD School of Chemistry and Chemical Biology. A European national and regional patent application.

Affinity separation means and uses thereof to separate, purify or concentrate a target molecule, Professor Gil Lee and Dr Julien Muzard, UCD School of Chemistry and Chemical Biology, with NIBRT. A European priority patent application.

An apparatus and method for inhibiting melatonin synthesis in a horse, Dr Barbara Murphy and Professor John Sheridan, UCD School of Agriculture, Food Science and Veterinary Medicine. An Irish priority patent application.

Igniting the gases, Brian Dolan

An energy monitoring system, Dr Antonio Ruzzelli, Professor Gregory O'Hare and Anthony Schoofs, UCD School of Computer Science and Informatics. A PCT patent application.

Anti-angiogenic compounds, Dr Breandán Kennedy, UCD School of Biomolecular and Biomedical Science. An Irish priority patent application.

Catalyst for the release of dihydrogen from ammonia borane, Dr Andrew Phillips and Dr Dominique Schreiber, UCD School of Chemistry and Chemical Biology. A PCT patent application.

Determining biofilm thickness in a membrane supported biofilm reactor, Dr Eoin Casey, Dr Eoin Syron and Mark Heffernan, UCD School of Chemistry and Chemical Biology. A US and European national and regional patent application.

Effective product recommendation using the real-time web, Professor Barry Smyth, UCD School of Computer Science and Informatics. A US national and regional patent application.

Fibrosuppressant biotherapeutics, Professor Catherine Godson et al, UCD School of Medicine and Medical Science. A Europe regional patent application.

Method and apparatus for stimulating pelvic floor muscles, Dr Brian Caulfield et al UCD School of Physiotherapy and Performance Science with BMR. A Canadian national and regional patent application.

Method and system for analysing most recently used registry keys Dr Pavel Gladyshev and Yuangdong Zhu, UCD School of Computer Science and Informatics. A US national/regional patent application.

Method and system for detection of analytes, Dr Mark Platt and Professor Gil Lee, UCD School of Chemistry and Chemical Biology. A UK priority patent application.

Methods and systems for enabling Network Address Translation (NAT) traversal for multi-homing protocols, Dr Hamid Nafaa and Dr John Fitzpatrick, UCD School of Computer Science and Informatics. An Irish priority patent application.

Methods for performing magnetic resonance measurements and apparatus for executing said method, Dr Marcus Greferath and Dr Eimear Byrne, UCD School of Mathematical Science and RWTH Aachen. A US national and regional patent application.

Methods for processing point cloud data, Dr Debra Laefer and Mr Linh Hong Truong, UCD School of Architecture, Landscape and Civil Engineering. An Irish priority patent application.

Methods and systems for providing mobile data traffic offload, Dr Hamid Nafaa and Dr John Fitzpatrick, UCD School of Computer Science and Informatics. An Irish priority patent application.

Methods of manufacturing photovoltaic electrodes, Dr Denis Dowling and Mohamed Awais, UCD School of Electrical, Electronic and Mechanical Engineering. A PCT patent application.

Modified Thromboxane A2 receptor promoter sequence, Professor Therese Kinsella, Dr Anne Marie Gannon, Dr Libby Turner and Dr Garret Keating, UCD School of Biomolecular and Biomedical Science. A US and European national/regional patent application.

Candy Lice, Pablo Rojas

Multivalent Oligosaccharides, Dr Marguerite Clyne and Dr Julie Naughton, UCD School of Medicine and Medical Science with NUIG. A UK priority patent application.

Network analysis tool, Dr Martin Harrigan, UCD School of Computer Science and Informatics and Dr Daniel Archambault, CLIQUE. A UK priority patent application.

Non-invasive networked equipment monitoring, Dr Antonio Ruzzelli and Anthony Schoofs, UCD School of Computer Science and Informatics and Alex Sintoni, CLARITY Centre for Sensor Web Technologies. An Irish and European priority patent application.

Non-linear magnetophoretic separation device, system and method, Professor Gil Lee et al, UCD School of Chemistry and Chemical Biology. A PCT patent application.

Novel biomarkers for cardiovascular disease, Dr John Baugh, UCD School of Medicine and Medical Science with Heartbeat Trust. A PCT patent application.

Plasma shutter, Dr Fergal O'Reilly et al, UCD School of Physics. A European PCT patent application.

Phosphine borane synthesis, Professor Declan Gilheany, Dr Jaya Kudavalli and Kamalraj

Rajendran, UCD School of Chemistry and Chemical Biology. A UK priority patent application.

Somatostatin mimetics, Professor Paul Murphy, UCD School of Chemistry and Chemical Biology with NUI Galway. An Irish priority application.

Use of Rhodium complex and method of using same, Dr Martin Albrecht and Anneke Krueger, UCD School of Chemistry and Chemical Biology. A UK priority patent application.

Yokie: search and discovery system, Professor Barry Smyth, UCD School of Computer Science and Informatics. A US priority patent application.

Contact: For further information contact Dr Ciaran O'Beirne, Manager, Technology Transfer, t: +353 1 716 3713, e: ciaran.obeirne@ucd.ie.

16th NovaUCD 'Entrepreneurs Live!' Seminar Series

The 16th 'Entrepreneurs Live!' seminar series, run by NovaUCD in association with Dún Laoghaire-Rathdown County Enterprise has now been completed.

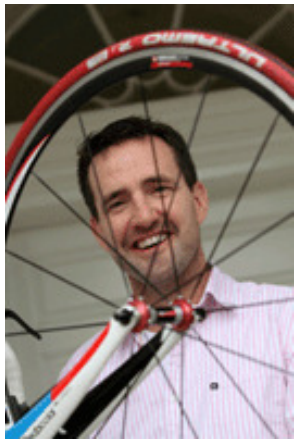
The theme of this seminar series, which was organised by NovaUCD in association with the Dún Laoghaire-Rathdown County Enterprise Board was setting-up and running a company in challenging times. The aim was to encourage would be entrepreneurs to 'just start' their businesses.

To date over 80 well known entrepreneurs have now contributed on this very popular seminar series. The overall objective of the '*Entrepreneurs Live!*' initiative is to promote a spirit of entrepreneurship among the academic, research and student populations at University College Dublin and beyond.

The final two speakers in the current series were:

Dr Liam Kelly, Nua Light

Jim Breen, Pulse Learning and Trigrandprix.com



Podcasts of the seminars are available via: **http://www.ucd.ie/nova/podcasts/**

Contact: For further information please contact Caroline Gill, t: 01 7163 715, e: caroline.gill@ucd.ie.

NovaUCD Companies in the News

Biosensia

Biosensia, the point of care diagnostics company based at NovaUCD, has secured €1.2 million in new funding as part of the company's plans to advance its regulatory and commercial strategy for its platform in Europe and in the US.

Diarmuid Flavin, CEO, Biosensia

The funding round was led by ACT Venture Capital, through its AIB Start-up Accelerator Fund, and included existing investors Seroba BioVentures and Atlantic Bridge.

There is a significant unmet need for more convenient, accurate and affordable point of care solutions, and Biosensia is poised to

become a major player in the development of next-generation, point of care diagnostic products.

The new funding will be used to secure CE mark and FDA regulatory approval for Biosensia's products in Europe and in the US and advance its commercial partnership strategy.

Biosensia intends to increase staff numbers by 10 within the next two-years as part of its commercialisation strategy.

Biosensia's platform, RapiPlex, is a novel, user-friendly, cost effective, multiplexing point of care in vitro diagnostics platform. It enables the transition of complex immunoassays from the central laboratory to the point of care across a wide variety of sample types.

RapiPlex has multiple point of care applications including medical, environmental, food safety and security. RapiPlex can perform up to 12 separate analyses simultaneously on a single sample and provides test results in as little as 5 minutes.

The RapiPlex platform is also integrated with an optical reader which provides a numerical read-out, which does not require user interpretation.

www.biosensia.ie

RendezVu

RendezVu, the NovaUCD elearning company, has announced the official release of ExamSpeak a next generation online language learning platform.

ExamSpeak prepares English language learners for their speaking exams by replicating the exam in real-time. ExamSpeak is unique in that students can introduce themselves to the virtual examiners, answer typical exam questions, talk to other test takers and then receive feedback on their performance.

ExamSpeak Screen Shot

By using the ExamSpeak immersive environment, students develop their language skills by using English to answer and ask exam questions. ExamSpeak thus enables language students to develop and improve the language skills they need to succeed in their exams.

It is estimated that worldwide there are 2 million language students annually preparing to take internationally recognised English speaking exams such as Cambridge KET (Key English Test), Cambridge PET (Preliminary English Test) and IELTS (International English Language Testing System).

However there is currently no convenient or practical way for most of these students to practise their English language skills. To solve this problem RendezVu developed ExamSpeak to allow students to experience the speaking exam, whenever they want, as often as they want, before actually sitting the exam.

Student Marthe Buisson and Paul Groarke, founder & CEO, RendezVu

RendezVu was founded in 2008 by Paul Groarke who has over 20 years experience working within the technology sector, including Baltimore Technologies.

RendezVu has already won a number of Awards including the NovaUCD 2008 Start-Up Award and the David Manley 2009 Emerging Entrepreneur Award.

www.examspeak.com

Tethras

Tethras, which enables app developers to easily adapt their software into over 40 languages. beat tough competition from two other finalists to win the Dublin Regional Finals of the InterTradeIreland 2011 Seedcorn Business Competition (High Growth Category).

In addition to winning a €20,000 prize Tethras went on to compete in the all-island finals of the competition which took place recently.

Brendan Clavin and Brian Farrell, co-founders, Tethras

Tethras, founded in 2010 by Brian Farrell and Brendan Clavin, also recently announced that it has taken on 16 staff in the last 6 months and plans to double its workforce within the next two-years. Tethras has seen a significant growth in customer acquisitions and revenues since its launch in the US market earlier this year.

The staff are located between Tethras' Irish headquarters at NovaUCD and the company's US offices in Mountain View, California.

Among the company's recent hires are Matthew Gonzales and Steven Troughton-Smith.

Tethras new recruits, Matthew Gonzales and Steven Troughton-Smith, with Brian Farrell, CEO, Tethras

Matthew Gonzales, an experienced executive from the mobile app sector, has re-located to Ireland to become Tethras' Vice-President for Business Development, from a similar role in Silicon Valley. Steven Troughton-Smith the company's Mobile Architect, is an internationally renowned Irish app developer with numerous published apps and 20,000 twitter followers.

Tethras' cloud-based localization service provides its customers with a fast, uncomplicated and significantly more cost effective way of getting their apps into the hands of non-English speaking smartphone users. Its platform enables translators and developers to preview what a translation will look like within the app itself resulting in a more accurate translation.

The Tethras platform streamlines the localization process allowing app developers to spend more time creating new apps and less time maintaining and updating their apps for multiple markets. The Tethras platform supports apps for Apple, Android and Windows devices.

www.tethras.com

NovaUCD and Social Media

NovaUCD now has over 1900 followers on Twitter. Join-in the conversation and follow us **@NovaUCD.**

NovaUCD also has over 680 members on its NovaUCD LinkedIn Group. The purpose of this Group is to connect members of the NovaUCD community which includes entrepreneurs, innovators, UCD staff and researchers, the NovaUCD network of professional contacts, along with any individual who is based or has been based at NovaUCD or is otherwise linked with NovaUCD or who would like to become involved with NovaUCD.

If you wish to become a member of this group please use the URL below or visit the LinkedIn website, www.linkedin.com, and search for 'NovaUCD' under 'Groups'.

http://www.linkedin.com/e/gis/149865

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