



NovaUCD Newsletter



The Innovation and Technology Transfer Centre

October 2010

Dear Colleagues and Friends

Welcome to the third issue of the NovaUCD Newsletter for 2010 in which we review key activities and events which took place during the third quarter of 2010.

NovaUCD, with the assistance of UCD Alumni Relations and UCD IT Services, has recently distributed an innovation survey to UCD alumni. The aim of the survey is to better understand how large numbers of UCD alumni became Irish and global entrepreneurs and the role that UCD has played in their development. The information obtained from the survey will be important in helping UCD to shape its training programmes and supports for the entrepreneurs of the future.

The Fault Analysis Group, a leading research group within the UCD School of Geological Sciences, was presented with the NovaUCD 2010 Innovation Award. The Group comprising 13 researchers has received over €6 million in research funding, predominantly from industry partners. In recent years software developed by the Group and licensed to industry has generated €350,000 in royalties.

The Innovation Dublin 2010 festival takes place from 10th-21st November. The aim of the festival is to raise public awareness of the innovation and creativity that is happening on a daily basis in Dublin, to inspire and stimulate innovation and creativity and to encourage networking opportunities. NovaUCD is co-ordinating UCD's involvement in the festival.

In this issue we report on the Enterprise Ireland Innovation Partnership Award of €200,000 received by UCD scientists and Weedle.com to combine their expertise to enhance Weedle's online technology platform.

Congratulations are due to John Travers, CEO, Alternative Energy Resources, who recently launched his second book, *Green & Gold – Ireland a Clean Energy World Leader?* at NovaUCD.

In this issue we report on recent developments for SmartBuilder Software and on Socowave's closing of a €3 million first round investment led by Balderton Capital. We also profile the AIB Seed Capital Fund which is based at NovaUCD.

I would welcome any comments or feedback on this issue. Please contact Micéal Whelan on t: 01-716 3712 or e: miceal.whelan@ucd.ie

Dr Pat Frain, Director

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UCD Alumni Innovation Survey (2010)

University College Dublin's new strategic plan, *Forming Global Minds*, sets out an objective of positioning UCD to play a major role in Ireland's economic recovery by contributing to *Building Ireland's Smart Economy*.

Under this plan UCD will foster entrepreneurship and innovation, across all disciplines, at 3rd and 4th levels, to create the business leaders and educated workforce that will be critical to creating the knowledge economy and to securing Ireland's international competitive advantage.

To help UCD better understand how large numbers of UCD alumni became Irish and global entrepreneurs and to understand more the role that UCD has played in their development, NovaUCD has co-ordinated an alumni innovation survey with UCD's Office of Development and Alumni Relations and UCD IT Services.

This survey has recently been distributed via email to alumni on the UCD database. The information obtained in this survey is important in helping UCD to shape its training programmes and supports for the entrepreneurs of the future.

If you are a UCD alumnus who has not received an email with a link to the survey, and you would like to take part in the survey, you can still do so via the link provided below.

www.zoomerang.com/Survey/WEB22B7ASCSUYD

NovaUCD is also interested in hearing from UCD alumni who would like to get involved in supporting entrepreneurship and innovation at UCD.

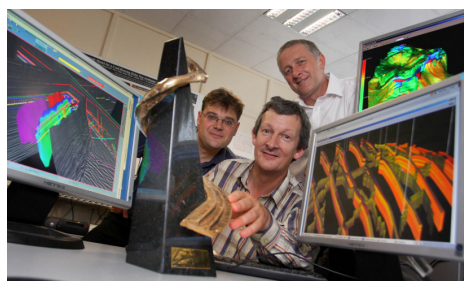
Contact: For further information contact Micéal Whelan, Communications, t: +353 1 716 3712, e: miceal.whelan@ucd.ie.

NovaUCD 2010 Innovation Award

The Fault Analysis Group, a leading research group within the UCD School of Geological Sciences, was presented with the NovaUCD 2010 Innovation Award by Dr Hugh Brady, UCD President, at an event held in September.

The Award was presented to the Group in recognition of its successes in the establishment of strategic and collaborative research links with global industry partners and in acknowledgement of its successful commercialisation activities.

The Group, which includes 13 researchers, is recognised as one of the leading international teams studying the geological and engineering properties of faults and in applying its research outputs to solve practical problems encountered in hydrocarbon and mineral exploration and production activities.



Dr Tom Manzocchi, Professor John Walsh and Dr Conrad Childs and co-directors, Fault Analysis Group

Since 2000, when the Group relocated from the University of Liverpool to UCD, it has been awarded €6 million in research funding. This funding has been secured predominantly from industry partners, including British Gas, Shell, Statoil and Tullow Oil. The Group has also received funding from Enterprise Ireland, IRCSET, Science Foundation Ireland and the European Union.

The Group's research output is embodied into software systems which have been licensed to Badley Geoscience, a leading UK software vendor, resulting in the joint development of commercial software products such as TransGen and TrapTester.

The TransGen software system has now become an industry-standard package. TransGen is routinely used by many of the world's major oil companies to predict the impact of faults and to analyse the flow of hydrocarbons in geological reservoirs. The software licences have provided a significant royalty income to both UCD and the University of Liverpool. The most recent software package has generated royalties of €350,000 over the last number of years.



Dr Pat Frain, Dr Tom Manzocchi, Dr Hugh Brady,
Professor John Walsh and Dr Conrad Childs

The Fault Analysis Group was founded in 1985 by Professor Juan Watterson and Professor John Walsh within the Department of Earth & Ocean Sciences at the University of Liverpool.

Professor John Walsh succeeded as Director in 1996 and oversaw the re-location of the Group to University College Dublin in 2000. The Group is now jointly directed by Dr Conrad Childs, Dr Tom Manzocchi along with Professor John Walsh.

The Group has also published more than 120 articles in leading international journals and special publications, and is the most cited structural geology research group in the UK and Ireland.

The Fault Analysis Group has also recently embarked on a major collaboration with Tullow Oil, in which Tullow Oil is funding a lectureship in Structural Geology within the Group.

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Innovation Dublin 2010

The Innovation Dublin festival was established in 2009 to raise public awareness of the innovation and creativity that is happening on a daily basis in Dublin, to inspire and stimulate innovation and creativity and to encourage networking opportunities.

The idea of the festival, co-ordinated by Dublin City Council, grew out of discussions at the Creative Dublin Alliance, which involves local councils, 3rd level institutions, including UCD, State agencies, businesses and not-for-profit organisations.

This year, the Innovation Dublin festival has been expanded to 12 days (10th-21st November 2010) to truly celebrate the innovative and entrepreneurial spirit of Dublin. The festival aims to broaden the definition of what people see innovation to be - it is culture, art and music as well as the traditional idea of business and enterprise.



As part of the 2010 festival UCD is hosting a series of events in various locations around the University and around Dublin. These events will take place in areas such as education, research & development, science, business, enterprise, culture etc and will include seminars, workshops, conferences, exhibitions, performances, showcases and competitions.

NovaUCD is co-ordinating UCD's participation in Innovation Dublin 2010. Information on all UCD's currently planned events is now available via

www.ucd.ie/nova/innovationdublin2010/

www.innovationdublin.ie

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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 2010 Invention Disclosures and Patent Filings

Over 40 invention disclosures have already been disclosed to date by UCD researchers to NovaUCD during 2010.



UCD patents filed to date during 2010 include:

A method and system for monitoring sleep, Professor Conor Heneghan, UCD School of Electrical, Electronic and Mechanical Engineering. A US national patent application.

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

A new design for DSSC, Professor K. Ravi Thampi, UCD School of Chemical and Bioprocess Engineering. A national and provisional US patent application and a regional European patent application.

A system level power evaluation method, Dr Damian Dalton, UCD School of Computer Science and Informatics. An Irish priority patent application.

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

Compounds, Dr Matthias Tacke, UCD School of Chemistry and Chemical Biology. An Irish priority patent application.

Digital predistorter for RF power amplifiers, Dr Anding Zhu, UCD School of Electrical, Electronic and Mechanical Engineering. A PCT patent application.

Energy monitoring system, Dr Antonio Ruzzelli, UCD School of Computer Science and Informatics. An Irish priority patent application.

Fibrosuppressant biotherapeutics, Professor Catherine Godson, UCD School of Biomolecular and Biomedical Science. A PCT and US national patent application.

Heat expanded food products, Professor Dolores O'Riordan, UCD School of Agriculture, Food Science and Veterinary Medicine. A national US patent application.

Markers of oocyte quality, Dr Lorraine Brennan, UCD School of Agriculture, Food Science and Veterinary Medicine. A European priority patent application.

Method and apparatus for stimulating the lower back and abdominal muscles, Dr Brian Caulfield, UCD School of Physiotherapy and Performance Science. A PCT patent application.

Method and apparatus for stimulating pelvic floor muscles, Dr Brian Caulfield, UCD School of School of Physiotherapy and Performance Science. A PCT patent application.

Method and system for analysing most recently used registry keys, Yuangdong Zhu, UCD School of Computer Science and Informatics. A PCT patent application.

Method and system for image analysis, Professor William Gallagher, UCD School of Biomolecular and Biomedical Science. A national US patent application.

Methods of manufacturing photovoltaic electrodes, Dr Denis Dowling, UCD School of Electrical, Electronic and Mechanical Engineering. An Irish priority patent application.

MSTN polymorphism, MSTN insertion/discovery, Thoroughbred, Dr Emmeline Hill, UCD School of Agriculture, Food Science and Veterinary Medicine. An Irish priority patent application.

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

Novel biomarkers for cardiovascular disease, Dr John Baugh, UCD School of Medicine and Medical Science. An Irish priority patent application.



Protease anti-prion protease, Dr Hilary McMahon, UCD School of Biomolecular and Biomedical Science. An Irish and European priority patent application.

Real-time information filter for news, Professor Barry Smyth, UCD School of Computer Science and Informatics. A US national patent application.

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UCD & Weedle – Enterprise Ireland Innovation Partnership

Weedle and UCD scientists at CLARITY have received an Enterprise Ireland Innovation Partnership Award of €200,000 to combine their expertise to enhance Weedle's online Search and Connect™ technology platform.

With users in over 60 countries after just six months, Weedle.com, a social media company headquartered in Dublin with offices in Palo Alto, California, is fast establishing its online presence as The World's Trusted Network of People with Skills™.

It is a free web service where people can showcase their skills as part of a trusted network. The unique advantage of the Weedle platform is that it combines the trusted connections of online social networking with a search for specific skills.

CLARITY is a Science Foundation Ireland funded multi-disciplinary research centre based at UCD in partnership with Dublin City University and Tyndall Institute at University College Cork.

CLARITY aims to lead the development of innovative new technologies of critical importance to Irish industry in areas such as personal health, digital media and the environment, which will impact positively on the quality of life of people.

The Enterprise Ireland Innovation Partnership initiative brings together private enterprises and third-level researchers to work on specific R&D projects. The Innovation Partnership contract between Weedle and UCD was negotiated through NovaUCD as the University's Innovation and Technology Transfer Centre.

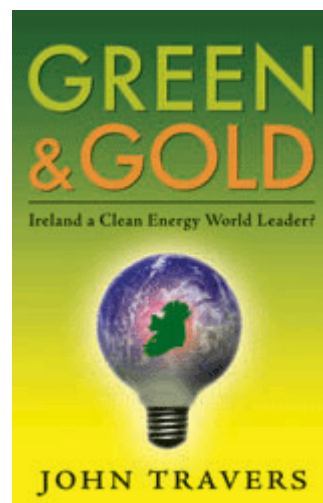
www.weedle.com and www.clarity-centre.org

Green & Gold – Ireland a Clean Energy World Leader?

Ireland has more than 3 times its total energy requirements available from readily accessible renewable energy sources on its own doorstep. Yet despite access to such vast and plentiful clean energy resources, Ireland is still heavily dependent on volatile foreign fossil fuel, importing almost 90% of its energy needs.

As conventional energy sources run out Ireland has an extraordinary opportunity to use its own natural resources, in a cost competitive way, to achieve energy independence and become a world leader in the use of clean energy.

That was the key message delivered at NovaUCD by John Travers, author and CEO of Alternative Energy Resources at the recent launch of his new book entitled *Green & Gold – Ireland a Clean Energy World Leader?*.



Other conclusions outlined in the book are that 20% of total Irish energy needs can be met by renewable energy within the next ten years and 80% by 2050 and that 20% of Irish GDP can be derived from clean energy exports.

In this new book, published by The Collins Press John discusses the role energy plays in the Irish economy and lifestyle, the country's consequent thirst for imported oil and how an energy crisis that could ravage the nation may be avoided.



He then assesses in clear terms, practical energy alternatives using renewable sources such as wind, solar, wave and biomass, which would allow Ireland to meet all of its energy needs and achieve energy independence. This would provide an opportunity for Ireland to become a global beacon in the use of clean energy.



John Travers, author and CEO, Alternative Energy Resources

John Travers is an international energy expert. He is an engineering graduate of University College Dublin and a MBA graduate of Harvard University. He has previously worked for Shell International and McKinsey & Company. He is also the author of *Driving the Tiger, Irish Enterprise Spirit*.

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Companies at NovaUCD

Thirty-four innovative new ventures are currently located in NovaUCD, either in incubation units or in NovaUCD's desk space.

The latest companies to locate at NovaUCD are

Carbon Decisions provides specialised tools, methodologies and expertise to help its clients measure, manage and reduce their carbon footprint.

www.carbondecisions.ie

Service Frame is recognised an innovator in sourcing governance software.

www.serviceframe.com

A total of 18 companies have now graduated from NovaUCD and moved on to new premises.

The continuous turnover of companies is an important element of NovaUCD's strategy to

continuously refresh our community of entrepreneurs and to have the capacity at all times to take on new projects.

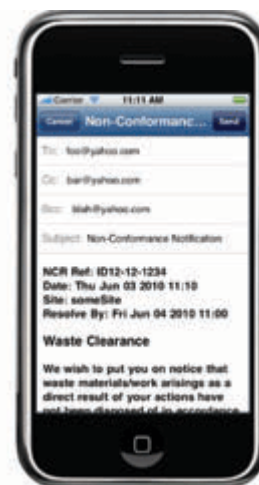
NovaUCD continues to welcome proposals from the promoters of high-quality, knowledge-intensive ventures who are interested in locating in NovaUCD.

Contact: For further information contact Dr Ciara Leonard, Project Manager, Enterprise Development, t: +353 1 716 3714, e: ciara.leonard@ucd.ie.

Companies in the News

SmartBuilder Software

SmartBuilder Software has launched *Site Clean Up*, a new iPhone application to assist building firms of all sizes to clean-up their construction sites more efficiently and cost effectively.



SmartBuilder Software's Site Clean Up App

On construction sites, just like at home, someone has to take out the rubbish. The problem for main contractors is that sub-contractors are often slow in doing this or leave sites without cleaning them. This results in untidy and potentially unsafe sites with main contractors having to employ additional staff to clean-up the sites. In addition to environmental and safety issues this can cost main contractors hundreds of thousands of euro each over the course of a year.



SmartBuilder Software, headquartered at NovaUCD, developed the Site Clean Up app after market research showed a demand for a practical technology solution to this problem.

SmartBuilder has designed its new app to be used by building firms of all sizes, from those building a school extension in a small town to those working on the London Olympics.

Site Clean Up provides a way for site managers to use their iPhones once they spot infringements on site.

The new app gives the contractor the ability to record and action sub-contractors to clean-up by a set date or face penalties. Sending warning notices ensures that they act quickly to rectify the problem preventing environmental and safety issues arising and ensures that the main contractor does not incur additional cleaning costs.

The app also contains a handy dashboard which displays all items, including the status of the number of pending, late or closed-out issues. The Site Clean Up app also contains reporting functionality so that a user can benchmark the performance of different sub-contractors.

SmartBuilder Software is targeting the UK, US as well as the Irish market with the Site Clean Up app which is priced at US\$19.99.

SmartBuilder Software is also developing a powerful internet based system for both small and large construction companies. SmartBuilder Software is developing an innovative cloud-based solution to deliver real productivity in a sector that badly needs to raise its productivity and become profitable again.

A video of the Site Clean Up is available to view via

<http://www.smartbuilder1.com/sitecleanup/video.html>

Socowave

Socowave, the NovaUCD-based developer of advanced wireless access systems for mobile communications, has secured a €3 million Series A investment round led by Balderton Capital.

The funding will enable Socowave to accelerate the development of technology that substantially increases the data handling

capacity of cellular radio infrastructure whilst reducing the energy consumption.



Joe Moore, Socowave

Socowave's Active Antenna System technology allows the cellular base station, for the first time ever, to detect the direction of incoming signals from user groups and to actively optimise the radio link using digital techniques.

This new class of base station technology increases wireless data handling capacity five-fold, while reducing the energy consumption of the overall base station system by 50% through eliminating inefficient base station components and locating certain elements inside the antenna housing.

Barry Maloney, Partner at Balderton Capital, will join the Socowave board. Socowave, supported by Enterprise Ireland, is headquartered in NovaUCD and its R&D centre is located in the National Software Centre, Cork.

www.socowave.com

www.balderton.com

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AIB Seed Capital Fund

The AIB Seed Capital Fund, which is based at NovaUCD, was established in 2007 to provide venture capital for companies at the seed and early stages of development across a range of sectors throughout the Republic of Ireland.

The Fund was established under the Enterprise Ireland Seed and Venture Capital Programme 2007-2012. The Fund has a total of €53 million under management with AIB committing €30 million and Enterprise



Ireland €23 million.

The Fund is managed by Enterprise Equity Venture Capital and the Dublin Business Innovation Centre.

The Fund managers, who have extensive expertise in making seed and early stage investments, adding value and facilitating business success, are empowered to make seed investments of up to approximately €500,000.

Furthermore, the Fund has the capacity to make investments in later rounds to support the continued growth of investee companies.

Enterprise Equity evaluates and manages all investments outside the city and county of Dublin, as well as investments that require in excess of €250,000 from the fund within the city and county of Dublin.

Dublin Business Innovation Centre (DBIC) evaluates and manages all investments within the city and county of Dublin when the initial investment amount required from the Fund does not exceed €250,000.

The AIB Seed Capital Fund has now invested in a significant number of companies, including Visor, a NovaUCD-graduate company.

www.aibseedcapitalfund.ie

NovaUCD and Social Media

Social Media Tools

NovaUCD is now on Twitter. If you would like to follow NovaUCD visit www.twitter.com/novaucd.

NovaUCD has also established a LinkedIn Group. The purpose of the NovaUCD LinkedIn 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/qis/149865>

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