

## Ignite Technology Transfer NUI Galway are speakers at various conferences including the Institute of Physics Spring Weekend



From left: Dr. Hermann Hauser, Amadeus Capital Partners, Dr. Pat Kelly, Ignite Technology Transfer NUI Galway, Prof. Ian Underwood, University of Edinburgh, Dr. Liam Mc.Donnell, ArraySense Ltd. and Cork Institute of Technology.

Ignite TTO team regularly share their experiences in speaking at annual conferences and have participated as guest speakers over the last year at;

1. The 1st Annual International Property & Copyright Conference, 2008, on "Intellectual Property Protecting the Future" held at the Law Society of Ireland, Blackhall Place, Dublin.
2. EI-Europe Biopartnering Conference held in Dublin on Biotech Research, Technology Commercialization & Industry Engagement at NUI Galway.
3. American Chamber of Commerce, Ireland, conference on Convergence of Technologies conference, where Ignite

TTO presented on "Research, Industry Collaboration & IP Commercialization".

4. Licensing Executive Society Annual meeting held in Dublin where TTO presented on: "IP Protection at NUI Galway".
5. Institute of Physics in Ireland. Dr. Pat Kelly, Commercialisation Executive and physicist at Ignite Technology Transfer NUI Galway, was an invited speaker at the annual Spring Weekend meeting. This year's IOPI Spring Weekend asked "Is Physics part of your business?", and featured among the guest speakers:
  - Prof. Ian Underwood, University of

Edinburgh, inventor of the world's smallest TV screen, and co-founder of Micro-Emissive Displays.

- Dr. Hermann Hauser, Amadeus Capital Partners, Cambridge, England, and co-founder of Acorn Computers, Active Book Company, Virata, Net Products, NetChannel, and Cambridge Network Limited and founder director of IQ (Bio), IXI Limited, Vocalis, SynGenix, Advanced Displays Limited, Electronic Share Information Limited and E\*Trade UK.

Dr. Kelly's presentation entitled "Physics Inside" – transferring physics technology into commercial products" showed how the physics within a commercial product is often invisible to the consumer, and that a multidisciplinary approach is essential to commercialising many physics technologies. He outlined the practicalities of taking physics technology out of the lab and rendering it as a well-engineered, reliable, saleable physics-based product. Echoing remarks of other speakers, he said that market pull rather than technology push, and diligent patenting, were essential to a commercially successful physics technology.

## Technologies for Commercialisation & Licensing at NUI Galway

Research scientists at The National University of Ireland (NUI) Galway have developed an attractive portfolio of technologies suitable for licensing. At present circa 30 technologies are available for licensing, with representative examples outlined below:

- MPN-RESIT** new rapid microbiological test to determine presence & level of antibiotic resistant coliforms in water/other samples.
- ORTHOPEDIC SCAFFOLDS FOR IMPLANTS** optimized porous scaffold for spinal, dental and/or orthopedic implants.
- TISSUE ENGINEERING** natural, biodegradable, biocompatible scaffold for hernia repair, staple line reinforcement & bariatric surgery.
- DNA DAMAGE DETECTION & REPAIR** quantitative assay for screening DNA damage and cancer drug targets.
- BIOMARKERS FOR PRETERM LABOR** novel diagnostic bio-markers to identify women at risk of preterm labor.
- CARDIOSIM** multipurpose physiological tester for cardiovascular devices, capable of evaluating the biomechanical, biochemical & biological response of medical devices in a simulated coronary

- artery environment.
- SOFTSEDS** software for sediment properties analysis, computes the physical & engineering properties of seabed sediments from sub-bottom seismic reflection profiling data collected by survey vessels at the sea-surface.
- BATTERY ANALYZER** device that provides vital information on battery size & remaining capacity;
- NUCLEOFLUOR** fiber optic/GM-APD time resolved fluorimeter for nucleic acid assay point-of-care medical diagnostics.
- USER AUTHENTICATION** A software based solution which provides a novel secure way of user authentication without the exchange of passwords.
- CONVOLUTIONAL CODE GENERATOR** develops Convolutional codes that are designed and optimized for specific applications.

- BREAKTHROUGH SENSORS FOR LASER DRILLING** family of sensors to detect hole breakthrough and verification in laser drilling processes.
- LASER SECURITY MARKING TECHNOLOGY** novel technology for generating and laser marking micro-security code on product (e.g. drugs).
- GLAUCOMA DIAGNOSTIC FOR OPHTHALMOLOGISTS** optical technology for the diagnosis of glaucoma indicators in the human eye.
- IMPROVED RESOLUTION OPTICAL READ/WRITE SYSTEM FOR DATA STORAGE** optical system to increase DVD data density.
- TURBULENCE CORRECTION SYSTEM** adaptive optical system and software for turbulence correction in free space optical systems.
- M2M** system and method for auction negotiation.
- PPEPR** a novel method of enabling "plug and play EPR" systems through the use of semantic mediation.

## Start-Ups in 3rd level Innovation Centres really do work

**A** Company profile – Embricon – Developed strong links with The Ignite TTO office, NUI Galway Enterprise programmes, the Medical Research Centres and the Hospital UCHG

<b>Location:</b>	NUI Galway Innovation Centre
<b>Name</b>	Embricon or see website – www.embricon.com
<b>Sector</b>	Medical Devices - Innovative in Endovascular Solutions
<b>Why does the company stand out?</b>	High Potential Start up with a very strong management team in place and won 1st place at the InterTradelreland All-Island Seedcorn Competition in 2007 for best International Emerging Company.
<b>Origins of the company:</b>	Originator with a background in R&D Engineering engaged with a surgeon from UCHG. Together they brainstormed on various commercial opportunities and gaps in the medical device market of endovascular solutions. The company took part in the Enterprise Development Programme (EDP) run out of NUI Galway in 2006 and a new company was formed.
<b>Regional impact of the company - e.g. employment</b>	This company has grown from strength to strength – with staff of approx 8 people, a very strong management team in place, has HPSU status and is funded through a mix of financial opportunities. The company is based in the NUI Galway Innovation Centre with office and lab space and has very strong links to NUI Galway Research Centres.
<b>How company is progressing financially and examples of funding received</b>	EI R&D capability fund BES funding Private funding InterTradelreland All-Island Seedcorn Competition winner
<b>Future plans</b>	To continue it's research and development of endovascular solutions and bring these solutions to a commercially viable proposition.



NUI Galway Business Innovation Centre

Thinking of starting your own business? For more information on our 2008 Entrepreneurial Forum contact the TTO.

**T**he TTO at NUI Galway have designed 2 new tailor made programmes to meet the needs of the researcher and entrepreneurs. These programmes are designed with a strong focus on market validation to achieve delivery of a packaged technology solution to the market on time.

- 1 **Campus Commercialisation Programme (CCP)**
  - 8 week unique product offering for researchers
  - Fundamental knowledge and skill-sets in the pursuit of enterprise development
  - What is the real value of your technology?
  - One-to-one mentoring sessions
  - Sectoral industry mix
- 2 **Start Up Solution (SUS)**
  - Programme designed for entrepreneurs
  - Marketing Research, Business & Financial Strategies.
  - Performance driven - not programme driven
  - Aim is to deliver proven technology to the marketplace
  - Mentoring on industry specific technology

**Testimonial from Engineering Department Participant in June 2007**  
 "These support programmes have opened our eyes to the feasibility of commercialisation. I now feel confident of my ability to tackle the steep learning curve put in front of me. The level of support, professionalism and clarity shown by the TTO and the University is outstanding. With people working as hard and effectively as those within the TTO, this region cannot help but become a leader of worldwide knowledge economy".

If you have a business idea or would like to explore the value of your technology please contact Ignite Technology Transfer Office, NUI Galway.

## NUI Galway Entrepreneurs involved in National Collaboration

Friday, 14 March, 2008: The Minister for Innovation Policy, Mr. Michael Aheron T.D., launched a national collaborative programme on Commercialisation of Research and Technology Transfer at an event last Thursday in TCD in Dublin.

The collaborative pilot programme between TCD, UCC and NUI Galway is funded by the Higher Education Authority (HEA) under the Strategic Innovation Fund (SIF) to develop PhD programmes in commercialisation and technology transfer.

At the launch Minister Aheron said, "Ireland is turning from an investment driven economy to a knowledge driven economy leading to an increase in technology transfer and commercialisation, as well as the number of people involved in research to 10,000 and graduating PhD levels on the rise".

Fiona Neary of the Ignite Technology Transfer Office, NUI Galway, says, "It is an exciting time to be part of a technology transfer group working on programmes such as this one where we can work first hand with budding entrepreneurs striving to progress their business ideas. The commercialisation path is a difficult one so all training & supports available can make an



Minister Aheron & SIF Commercialisation Programme participants outside TCD.

enormous difference to the technology researcher, the universities and hopefully the economy in the long run."

Other topics to be covered during the three-year pilot programme include opportunity proposition, the selling model, the funding gap, intellectual property management and your technology road show.

## IP MATTERS

Intellectual property rights recognise and reward our creative efforts and inventiveness and provide a means through which this innovation can be protected and commercially exploited. Adopting a strategy for the protection and exploitation of these property rights is important. Adopting the right strategy is critical.

According to Laura Myles, IP Consultant and founder of TradeSecrets Limited (TSL), recognition, reputation and reward are fundamental objectives for the proper management of IP rights. Implementing the right IP strategy and promoting awareness of IP rights in your organisation, whether academic or commercial, are key steps toward meeting these objectives.

An important function of universities and other research institutions is the dissemination of their research findings through academic publications, presentations and conferences. The premature disclosure of an invention, however, may rule out the possibility of obtaining a patent (and enjoying the rights attached to it). Balancing these conflicting interests should form part of the IP strategy, by implementing, for example, a reasonable publication review and approval procedure. It is clear that careful assessment is required at an early stage to determine on a case-by-case how best to protect, manage and market your IP rights to yield the greatest reward – financial or otherwise.

TSL are consultants, advisors and negotiators in the field of IP and specialise in a range of intellectual property matters such as technology transfer, licensing and research arrangements. TSL works closely with universities and other research institutions, SME's and start-ups largely focused in the bio-pharma, medical device and ICT fields. TSL also works with state agencies in mentoring new businesses in Ireland in IP matters. For more information about TSL see [www.tsl.ie](http://www.tsl.ie) or contact 091 790330.

## Thank You...

Dr. Daniel O'Mahony established the successful Technology Transfer Office at the National University of Ireland, Galway in 2005 which is currently staffed by dedicated commercialisation executive's, Business Development & support team. Prior to joining NUI Galway Daniel worked at Elan Corporation where he held the positions of VP Technology & Asset Divestment and VP Experimental Biology followed by R&D Director at Taro Pharmaceuticals. He has also held academic posts at University College Cork; Trinity College, Dublin; The Weis Research Centre, PA, USA; University College Dublin & Mater Hospital Centre.

Daniel has now joined Kernel Capital as a Partner since January 2008, the Ignite TTO team would like to take this opportunity to thank him for his invaluable continued support and wish him every success in his new venture.

# NUI Galway has launched the new Ignite Technology Transfer Office



Ignite TTO Team

NUI Galway has launched the new Ignite Technology Transfer Office (formerly TTO NUI Galway) to provide expertise and guidance to researchers, businesses and entrepreneurs in the western region. The 15 members of the Ignite TTO team currently offer a range of programmes and services to support Intellectual Property Management and new Enterprise Development.

The team build on existing technology transfer activities at the University, with a focus on the early stage identification and protection of

intellectual property (IP), technology marketing, technology valuation and technology commercialisation. The new entrepreneurial forum, enhancing spin-out formation, technology licensing & business mentoring and the expansion of support services, such as the business incubation space, will add to enterprise support that Ignite TTO provides.

Dr. Daniel O'Mahony, Consultant Advisor, Ignite TTO, said "NUI Galway's investment in research and technology commercialisation exceeded € 46m in 2007. When people think of

Ignite TTO we want them to equate it with the birth of new technologies, the emergence of new breakthroughs, an endless source of innovation, a fountain of future commercial prospects. It will excite the imagination and attract entrepreneurs to our sandbox of commercially viable offerings. In time it will represent a place of excellent research giving way to excellent technologies and thereafter to commercial success."

NUI Galway has a long standing involvement with the promotion of indigenous enterprise and the direct provision of services to locally based industry. More than 40 collaborative projects with industry were secured in 2007, generating over €15m, as well as the establishment of a new entrepreneurial forum with a view to providing researchers and emerging entrepreneurs the fundamental knowledge and skill set required in the pursuit of enterprise development. Ignite TTO has a strong focus on market assessment and delivery of tailored solutions and technology offerings to market on time.

During the last year, following licensing of technologies and intellectual property, a number of start-ups from NUI Galway were formed including Eirzyme Ltd., Theta Chemicals Ltd. and Syncrophi Ltd. Numerous other spin-out companies are at late stage negotiation.

Dr. Neil Ferguson, Ignite TTO Commercialisation Officer, said, "There is a real sense of entrepreneurial spirit and innovation among businesses in the west of Ireland, matched by the cutting-edge research taking place on campus. The encouragement of our future entrepreneurs is critical to the sustained economic prosperity. The Ignite TTO team is here to lend a helping hand to entrepreneurs in our University and region as they take the first steps in bringing their technology concepts to commercial reality".

### SUMMARY OF SOME KEY ACHIEVEMENTS IN 2007:

1. €46M spent on research in 2007.
2. 24 Option & License Agreements executed in 2007.
3. 42 patent applications.
4. Four spin-out companies in past 12 months.
5. >40 collaborative projects with industry (start-ups, SMEs and MNCs).
6. Six bio-incubation labs and a core equipment lab for Life Science companies created.
7. Launch of Campus Commercialisation Program (CCP) and Start-up-Solutions (SUS) to promote enterprise development.
8. Funding for new graduate programmes in Entrepreneurship and Innovation.

### Inside

- |                                    |   |
|------------------------------------|---|
| 2. Institute of Physics in Ireland | 3. Explore your Business Idea             |
| 2. NUI Galway Technologies         | 4. SFI National Collaboration             |
| for Commercialisation              | 4. Ignite TTO Accelerating Value Creation |
| 3. Embricon, a company Profile     | 4. Thank You...                           |



ignite  
TECHNOLOGY TRANSFER  
NUI GALWAY

National University of Ireland, Galway  
Ollscoil na hÉireann, Gaillimh

Accelerating Value Creation

Intellectual Property Management  
Generation, Protection & Exploitation of University IP  
Growing portfolio of technologies available.

Entrepreneurial Forum  
Make your Business concept a Commercial reality.  
Take part in our Entrepreneurial Forum and find out which programme best meets your needs and takes you to the next level.

Campus Innovation Centre  
Enhances Spin Out formation, new Business Growth and support services in place for Knowledge Intensive Companies in all sectors.

Technology Licensing  
Spin Out Companies  
Business Mentoring and Sectoral Expertise

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