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University College Dublin

Celebrating the past, creating the future

MARCH 2006

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UCD *Horizons* proves attractive to prospective students

Replacing three years of falling CAO first preferences with an upturn of over 10.4% when the overall numbers applying for degree programmes declined is a remarkable achievement by any standards. The Registrar, Dr Philip Nolan, was justifiably pleased when the CAO figures were published this month. "UCD *Horizons* is clearly an innovation that has captured the imagination of students. This is an immensely encouraging performance and I am deeply indebted to all staff for their enthusiastic commitment over the past 18 months."

The internal work entailed reforming the undergraduate curriculum and the development of a truly modular system which would provide students with greater choice and flexibility, while retaining the academic robustness of the degree programmes. This required intensive effort on the part of staff throughout the university as 900 modules had to be ready for the first years entering in September 2005.

The first cohort of students has already demonstrated that they are knowledgeable and comfortable with the options presented by UCD *Horizons*. A first year physiotherapy student, who had taken elective modules in psychology and food nutrition, explained her choices: "The modules complement my core degree."

Their experiences will quickly filter out to the next generation of students. Already, the opportunities opened up through UCD *Horizons* have had an impact on CAO applications. In particular, non-denominated areas such as Arts, Commerce, Agriculture and Engineering have performed extremely well, as have some of the new degrees such as Geography, Planning & Environmental Policy, Law & Politics, Commerce & Chinese Studies and Physics with Astronomy and Space Science. CAO applicants showed high interest in Psychology - which was also the single largest elective among current first years. Another welcome trend was the upturn in interest in Computer Science - both through the BSc and through the BA - reflecting the revival in confidence in this sector in the economy.

Few doubted the potential of UCD *Horizons*. The speed of its success bodes well for the future as feedback from students and staff helps to refine the curriculum year by year.

"This was the first real test of the public reaction to educational innovation at UCD, and we are very pleased that university students are attracted to an environment where we expect them to make choices and engage with and take control of their own learning," said the Registrar, who has overall responsibility for the UCD *Horizons* curricular reform.

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New structures will provide new ways to reach out to students

The university's decision to appoint a director of student recruitment, Ms Anne Marie Harvey, represents a further step towards more externally focused communications.

As UCD *Horizons* is embedded and the first-year students and their lecturers provide feedback on their experiences, the university will undoubtedly refine the modular system. Concurrently the new director will begin to reach out to a broader range of prospective students - meeting with them, listening to them and explaining what we offer and how it differs from other universities.

The marketing of UCD *Horizons* began last year when the university decided to announce the introduction of modularisation for September 2005. The first cohort of students responded enthusiastically to the opportunities it presented, with 40% choosing modules outside their core subjects. The choices made by students in the CAO process last January further endorse the new approach, with a significant upturn (10.42%) in the number selecting UCD degrees as their first preference.

Undoubtedly the underlying curriculum reform is the reason for this increase. The marketing (including advertising, open days and website) has to have a core message to deliver. The educational benefits of UCD *Horizons* provide that message.

Now, through the new student recruitment office, we will be able to reach out in a much more systematic way to prospective students so that when we examine the student base in 10 or even five years' time, we can expect our students to be far more diverse in terms of where they come from, what stage of life they are at, and how and what they study.

Eilis O'Brien
Director of Communications



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2006

Taoiseach opens UCD Centre for Synthesis and Chemical Biology building

The result of the largest single investment in chemistry research by the Irish Government

The CSCB, a UCD-led collaboration with TCD and the RCSI, was funded under a €26 million grant from the Higher Education Authority through the Programme for Research in Third Level Institutions (PRTL) Cycle 3. This is the largest single investment in chemistry research ever made by the Irish Government and represents a significant platform for the creation of "4th Level Ireland" which will produce the knowledge leaders of the future and underpin a climate of innovation for Ireland's further economic growth.

Officially opened by an Taoiseach, Mr Bertie Ahern TD on Thursday 2 February 2006, the new 2,300 m² building situated on the Belfield campus comprises six state-of-the-art laboratories for synthetic chemistry and mass spectrometric and nuclear magnetic resonance (NMR) spectroscopic facilities.

Dr Hugh Brady, president of UCD, acknowledged the contribution of Atlantic Philanthropies, which was the principal non-governmental supporter of this project.

"When the history of Irish higher education at the turn of the millennium is written, the name of Atlantic Philanthropies will hold an honourable place. It would be difficult to exaggerate how bleak the Irish research landscape looked when I returned from the USA in 1996. Half a decade later, it has been totally transformed, thanks in large part to the catalytic initiative shown by Atlantic Philanthropies in relation to the Programme for Research in Third Level Institutions. Atlantic's contribution to UCD is evidenced in the Conway and Geary Institutes, as well as in the CSCB, along with many other capital and academic developments across the campus."

Our next generation of medicines may well originate from the CSCB if the research accomplishments over the last three years are anything to go by.

Since its establishment, CSCB researchers have published over 300 scientific publications and raised over €17 million in external grant funding. In addition, there have been 100 PhD graduates and over 50 postdoctoral fellows working in labs supervised by CSCB investigators. These scientists will play a pivotal role in the existing pharmaceutical and emerging biopharmaceutical industry in Ireland.

A CSCB research group led by Dr Paul Murphy takes inspiration from nature, with a research focus on carbohydrate chemistry, in particular the design and synthesis of bioactive agents based on carbohydrates. Many of the compounds have the potential to form the basis of new drugs for the development of new therapeutics for cancer, HIV, Hepatitis B and C infections, multiple sclerosis and diabetes.

Sixty per cent of medicines have natural products as their origin. Mother Nature has created a multitude of biological compounds that have one purpose in their host plant but can have extraordinary effects on diseased human cells. So, for example, a natural source of aspirin is to be found in willow bark, penicillin on mouldy bread and anti-cancer drugs in a marine sponge.

One of the reasons it is so important to the pharmaceutical industry to be able to chemically synthesise the natural effect is that Mother Nature cannot produce sufficient quantities to treat patients.

The challenge for scientists is to isolate and identify the active compounds from nature and apply them correctly in patient treatments. Drug discovery requires input from a range of disciplines. Chemists and chemical biologists have managed to synthesise many naturally occurring medicines in the lab and are also striving to discover new molecules with enhanced biological activity and better ways to make them. This research leads to a better understanding of disease at a molecular level.

One example of chemists' partnership with Mother Nature is the case of the Pacific Yew, *Taxus brevifolia*. In the 1960s, a compound extracted from the bark of the tree, known as paclitaxel, was discovered to exhibit significant anti-tumour activity. Unfortunately, the Pacific Yew is one of the slowest growing trees in the world - as well as being a protected species. It would take six 100-year-old trees to provide enough paclitaxel to treat just one patient. Since removing the bark kills the tree, the cost of producing sufficient quantities of the drug remained a major limiting factor for years.

Over time, synthetic organic chemists managed to recreate the paclitaxel compound and by the early 1990s, the drug Taxol was finally made available in sufficient quantities to provide an effective, non-intrusive alternative to the more radical techniques of radiation therapy and surgery. Today, Taxol is primarily used to treat solid tumours, which are notoriously hard to combat and the Pacific Yew is left in peace to grow at its own pace.

The world's supply of Taxol is manufactured by Bristol-Myers Squibb in their facility at Swords, Co. Dublin.

Professor Pat Guiry (CSCB Director) runs a research programme to develop new and efficient catalysts for synthetic chemistry with an emphasis on stereoselectivity and efficiency. Professor Guiry's group are also synthesising an important

class of compounds, called lipoxins, which exhibit anti-inflammatory properties and have potential therapeutic and commercial value.

Many of the principal investigators are carrying out research in the area of anti-cancer drugs. To discover a new medicine, researchers embark on a drug discovery programme which can entail synthesising thousands of molecules that are then screened for their biological activity. Dr Donal O'Shea's group uses microwave technology to speed up reactions and make this drug discovery process more efficient. Dr Matthias Tacke is working on a group of anti-cancer drugs from the Titanocene family, with the aim of discovering a potential new chemotherapy product for renal cell cancer. This research project is at the pre-clinical stage.

Already some of the researchers based in the CSCB have taken their research to the commercial level. This entrepreneurial activity includes Dr Raphael Darcy, Dr Declan Gilheany and Professor Paul Engel, who have set up three UCD campus companies: Cytrea, Celtic Catalysts and Enzolve, respectively.

The pharmaceutical industry in Ireland employs more than 17,000 people in 83 facilities, making Ireland one of the world's largest exporters of pharmaceuticals and biopharmaceuticals. Dr Brady appealed to the pharmaceutical sector to become an active partner in the next wave of economic development for Ireland. "The pharmaceutical sector should take an even more active partnership role with us as we drive towards 4th Level Ireland. Ireland's future economic success hinges on the training and placement of highly skilled, highly intelligent postgraduate and postdoctoral researchers.

With the capital investment in CSCB the Irish Government and the higher education sector have demonstrated their commitment to research. Our hope is that industry will become more practically involved in funding the postgraduate and postdoctoral researchers who are part of the global community seeking to discover new ways to treat or allay chronic diseases."



An Taoiseach Bertie Ahern, TD, with Dr Paul Murphy, CSCB Principal Investigator (back row, 2nd from right) and his research group

4th Level Ireland

excavation

Piecing together the past

Eoghan Rice (BA 2003) meets with Dr Muiris O'Sullivan, Head of the UCD School of Archaeology, whose recent book, *The Mound of the Hostages, Tara*, charts the findings from a 3500 BC passage tomb at Tara.

When archaeologists began the excavations at the Mound of the Hostages, Tara, over 50 years ago, they could not have imagined the treasures that lay waiting for them. In a burial tomb underneath the famous mound, the remains of over 300 people were stored away, some having been placed in the tomb over 5,000 years ago.

For four years during the 1950s, archaeologists from University College Dublin carried out the most extensive excavations ever conducted at Tara. The material they found in the Mound of the Hostages was brought to UCD and now, for the first time, the findings of these excavations have been comprehensively catalogued and published.

Duma na nGiall, Tara, The Mound of the Hostages by Dr Muiris O'Sullivan, Head of the UCD School of Archaeology, chronicles the vast findings of the 1950s excavations. Published earlier this month, the book brings to life one of the most important ancient burial tombs in Europe.

"The Mound of the Hostages is actually smaller than sites such as Newgrange," explains Dr O'Sullivan, "but what makes it so spectacular is that it contained much more material than any other equivalent site. No other site of this kind in Europe has revealed such an extensive collection of material."

Dr O'Sullivan first began documenting the findings in 1987. And it has taken more than 15 years of dedicated effort to complete the mammoth task of charting the vast findings; the remains of human bones alone filled over 260 storage boxes, with hundreds more boxes filled with artefacts and countless drawings and photographs taken by the archaeologists that directed the excavations.

Work first began on the Mound of the Hostages in the summer of 1955, when Sean P.

O'Riordain, then professor of Celtic Archaeology at UCD, led a team of archaeologists to the tomb. Despite the huge importance of the site to ancient Irish history, very little was known about the mound, or indeed the archaeology of the wider Tara complex, at the time.

Continuing into 1956, the team began to uncover the hidden past of the Mound of the Hostages, and slowly discovered that the mound was a religious burial site surrounded by a ring of fire pits. However, tragedy struck in the autumn of 1956 when Professor O'Riordain fell ill and died.

As with practically all research, the findings of the 1950s excavations have thrown up almost as many questions as they have answered

After a gap of three years, Ruaidhri de Valera, O'Riordain's successor as professor of Celtic Archaeology at UCD, continued the excavation, which was carried out throughout 1959. It was during this final excavation of the site that the real significance of the Mound of the Hostages was uncovered. Guarding the central tomb lay three cists, which contained the remains of 55 adults, three children and four infants - more than most megalithic tombs have produced in total. Inside the tomb itself, the archaeologists were astonished to find the remains of another 250 bodies, ranging in dates from 3500 BC to 1700 BC.

Aside from the human remains found at the site, there was also a vast collection of decorated artefacts and artwork, all discovered inside the complex internal structure of the mound.

With the excavation of the mound complete, the material was brought back to UCD for storage, where it has remained since. Only now, due to the tireless dedication of Dr O'Sullivan and his colleagues, can these crucial excavations be analysed in a bid to help our understanding of pre-Christian Ireland.

As with practically all research, the findings of the 1950s excavations have thrown up almost as many questions as they have answered. For example, although Dr O'Sullivan says that we can "take for granted" that the remains found in the mound were those of important people, we still do not know who they were. Using modern DNA testing expertise, which is available to Dr O'Sullivan at the UCD Conway Institute of Biomolecular and Biomedical Research on the Belfield campus, he hopes to learn more about the people buried at the site.

While it could be assumed that the remains belong to the families of local kings, there is also the possibility that the remains belong to people who lived and died far away from Tara but were brought there to be buried due to the significance of the site.

One of the last burials to take place in the mound, around 1700 BC, was that of a child of 15 or 16 years of age. Crucially, the child, believed to have been a male, was buried unburned and with copper and amber beads around its neck, the type found only in the south of England at the time. "These beads are very intriguing because we don't know whether they were brought over here or whether the person may have been brought from England to be buried at the site," says Dr O'Sullivan.

If it could be proven that bodies were brought from abroad, or even from distant parts of Ireland, to be buried at the Mound of the Hostages, it would have massive implications for our understanding of the importance of this site to the pre-Christian world.

It is already known that the Hill of Tara was a hugely important site in Ireland back as far as the Stone Age. However, while the Hill of Tara reached the height of its political and cultural importance in the first few centuries after the birth of Christ, the tomb at the Mound of the Hostages was closed for the final time almost two millennia earlier.

Not only does this suggest that the Mound of the Hostages was of greater importance to our ancestors than its more famous neighbour, it also shows that the land at Tara was considered to be of huge religious, political and social importance as far back as 3500 BC.



Ceremonial battleaxe 166mm long from Burial 38

"We can see that cremation burials took place continuously from around 3500 BC to 1700 BC," says Dr O'Sullivan. "The fact that these burials predate the Tara of mythology and early history suggests that the Tara region must have been very important throughout this time too."

Having worked on documenting the research since 1987, Dr O'Sullivan now hopes to bring the archaeological findings forward by inviting archaeologists and other experts from around the world to scrutinise the findings published. By finding out who was buried at the site and why, further light can be cast on one of Europe's most important archaeological sites.

With the publication of this volume complete, the National Museum of Ireland has been invited to take all finds from the excavation stored at UCD School of Archaeology into care.

Eoghan Rice is a Sunday Tribune journalist and former editor of the College Tribune.



Carrowkeel bowl, some balls, beads, fragments of bone and antler pin from pre-cairn Cists I and II



Chomsky's intellect sparkles at UCD



Noam Chomsky speaking in UCD, January 2006

Noam Chomsky, the world-renowned linguist and public intellectual, paid a return visit to UCD to deliver a series of lectures in January 2006. A professor of linguistics at the Massachusetts Institute of Technology for over 50 years, Chomsky is perhaps better known publicly for his active left-wing criticism of American foreign policy.

Due to unprecedented demand, O'Reilly Hall was chosen as the venue for Chomsky's UCD lectures. But even this 1,000-plus seater couldn't house everybody who came to hear the famous intellectual figure speak. On each occasion, the crowd, some of whom had queued for several hours to try to ensure their place at the non-ticketed event, were directed into the hall until it reached full capacity, then a further 300 people were guided into the adjacent conservatory to witness the lecture by live video broadcast. For those who could not attend in person, UCD broadcast the public

lectures live on the university website - where they can still be accessed today.

Two of the three public lectures focused on the political. In his first lecture, hosted by UCD School of Philosophy and UCD Clinton Institute of American Studies, Chomsky spoke of the historical definition of the term 'democracy' according to the US and the West generally and how this term is applied to, and used to explain and to justify, America's foreign policy decisions. In his second lecture, a student lecture hosted by the UCD Literary & Historical and UCD Philosophy Society, he criticised the proliferation of military power of several American administrations. His third and final lecture, hosted by UCD School of Philosophy, focused on linguistics and biolinguistic explorations. At the end of each lecture Chomsky took 20-30 minutes to answer questions from the audience.

Béaloidias na Tréidliachta

le Ciarán Ó ConCeanainn

Bhí Roinn Bhéaloidias Éireann ag soláthar cúrsaí teagaisc i mbéaloidias na hÉireann sa gColáiste Ollscoile, Baile Átha Cliath ó 1971 i leith, tráth ar comhshnaidhmeadh Coimisiún Béaloidiasa Éireann leis an gColáiste Ollscoile, Baile Átha Cliath. Tháinig Lárionad Uí Dhuilearga do Bhéaloidias na hÉireann agus Cnuasach Bhéaloidias Éireann mar chomharba ar Roinn Bhéaloidias Éireann i 2005 agus i mbliana den chéad uair, bhí deis ag mic léinn na chéad bhliana staidéar a dhéanamh ar an ábhar sin faoi scáth na scéime 'UCD Horizons' i Scoil na Gaeilge, an Léinn Cheiltigh, Bhéaloidias Éireann agus na Teangeolaíochta. Tugann an scéim seo deis do mhic léinn staidéar a dhéanamh ar mhodúil roghnacha in ábhair lasmuigh dá bpríomhábhar staidéir.

Scrúdaíonn an béaloidias go leor gnéithe de chultúr na hÉireann, an litríocht bhéil, an stairsheanchas, an ailtireacht dhúchais, béaloidias na bpáistí, nósanna agus creidiúintí, leigheasanna agus lucht leighis, beatha an duine agus an béaloidias comhaimseartha ina measc. Ba i dteannta ábhair ghaolmhara eile cosúil leis an nGaeilge, an Léann Ceilteach agus an Stair a rinneadh staidéar ar an mbéaloidias go traidisiúnta. Tá an treoht seo ag athrú, áfach. Is í an Dr. Ríonach Uí Ógáin, léachtóir sinsearach le Béaloidias na hÉireann a dhear agus a mhúin an chéad mhodúil béaloidias a soláthraíodh do mhic léinn na chéad bhliana i mbliana. Deir síse gur

mic léinn tréidliachta 20% dóibh siúd a d'fhreastail ar an gcúrsa, rud a léiríonn go bhfuil ag éirí le coincheap idirdhisciplíneach na scéime 'UCD Horizons' a thugann deis do mhic léinn cúrsaí ilghnéitheacha a dhearadh dóibh féin.

Ceann de na cúiseanna faoi ndear an líon ard mac léinn tréidliachta a chláraigh chun staidéar ar an mbéaloidias, go leor a bheith le foghlaim ó thuiscintí na ndaoine faoi ghalair ainmhithe ó thaobh na tréidliachta de. Tá suim faoi leith ag an Dr. Micheál Ó Dochartaigh, léachtóir sinsearach i Scoil na Talmhaíochta, Eolaíocht an Chothaithe agus an Leighis Tréidliachta i mbéaloidias na tréidliachta, rud atá soiléir sna haistí atá foilsithe aige ar an ábhar. Measann sé go bhfuil an béaloidias ina fhoinsé luachmhar ó thaobh na tréidliachta de. Fiú na téarmaí dúchasacha Gaeilge a úsáidtear chun cur síos a dhéanamh ar na galair, is ón mbéaloidias a shíolraigh siad.

Ba in Inis Eoghain, Co. Dhún na nGall a thug séisean an ceangal idir an béaloidias agus an tréidliacht faoi deara ar dtús tráth a raibh sé ag freastal ar bhó thinn ar measadh drochshúil a bheith déanta dhi. Faightear tagairt eile as Inis Eoghain sa leabhar *The Last of the Name* le Charles McGlinchey d'fhear darbh ainm Eoin O'Kerrigan a rugadh in 1805 agus a rinne fiosrú faoin ngalar crúibe agus béil i mBun Crannacha, Co. Dhún na nGall tráth a raibh eipidéim mhór den ghalar in Éirinn agus sa Bhreatain idir 1869



Mic Léinn Bhéaloidias ar Obair Pháirce
UCD Folklore students on field work

agus 1870. An rud atá spéisiúil faoin tagairt seo, ná gur athraigh sé a chuid éadaigh tar éis ainmhithe a raibh an galar orthu a scrúdú sular thrasnaigh sé an sruthán chun a thí, rud a léiríonn gur thuig sé cé chomh tógalach is a bhí an galar.

Tá foras na heolaíochta le tabhairt faoi deara i ngach gné den saol sa lá atá inniu ann. Mar sin féin, tá sé suimiúil a thabhairt faoi deara go bhfuil áit ag na tuiscintí agus ag na creidiúintí dúchasacha Éireannacha seo laistigh den staidéar eolaíochtúil a déantar agus gur léiriú é ar cé chomh leathan is atá an béaloidias mar ábhar.

The UCD Delargy Centre for Irish Folklore and the National Folklore Reserve in the UCD School of Irish, Celtic Studies, Irish Folklore & Linguistics offered a module in Irish Folklore to first year students for the first time this year as part of the new modular curriculum, UCD Horizons.

Although Irish Folklore was traditionally studied with related subjects such as Irish, Celtic Studies and History, this year 20% of the students who registered for the module in Irish Folklore came from the UCD School of Agriculture, Food Science & Veterinary Medicine, according to the module co-ordinator, Dr Ríonach Uí Ógáin. This shift is due to the interest of academics, such as Dr Michael Doherty of the UCD School of Agriculture, Food Science & Veterinary Medicine, in the value of traditional folk beliefs and customs in the practice of veterinary medicine.

In view of the advance of science and technology in the 21st century, and the fact that cold reason rules where romance and sentiment once held sway, it is noteworthy that old customs and beliefs still find a place in the practice of veterinary medicine.

Tá Staidéarachta Taistil de chuid Ollscoil na hÉireann ag Ciarán Ó ConCeanainn faoi láthair agus tá sé i mbun staidéir in Ollscoil Dhún Éidinn.

Ciarán Ó ConCeanainn holds a NUI Travelling Studentship in Celtic Studies and is currently studying at the School of Scottish and Celtic Studies, University of Edinburgh.



Double top for palaeobiologist

Maria McNamara, a PhD student in the Palaeobiology Research Group at the UCD School of Geological Sciences, was awarded the President's Prize for best paper by a researcher under the age of 30 at a recent international conference. It's the second time that Maria has been awarded this prize - and only the second time in 49 years that the same individual has won the prize more than once. Remarkably,

these were Maria's first and second papers at this annual conference.

Her talk was on part of her research into the preservation of fossil amphibians in Tertiary lakes of Spain. It was co-authored by her supervisor Dr Patrick Orr and their collaborators from the University of Bristol (Dr Stuart Kearns), Spain (Luis Alcalá, Fundacion Conjunto

Palaeontológico de Teruel; Pere Anadón, CSIC-Barcelona) and the American Museum of Natural History (Enrique Peñalver-Mollá).

Research by the UCD Palaeobiology Group, including this work, will also feature in a forthcoming issue of the popular science magazine *Discover*.



Maria McNamara

UCD researchers seek new dinosaur fossils in Kazakhstan

A group of UCD palaeontologists recently announced the formation of a consortium to search for new dinosaur fossils in the Republic of Kazakhstan, a former region of the Soviet Union. The team at UCD believes that the ambitious nature of the project may reveal new species of dinosaurs previously unknown to science, with results providing important leads for future studies on sustainability of the Earth's biodiversity resources. The study of animal extinction and why it occurs will also benefit from the research.

The consortium consists of four teams, and is led by Dr Gareth Dyke from the UCD School of Biology & Environmental Science. The research partner in Kazakhstan is the government-funded Institute of Geological Sciences led by Dmitry Malakhov. These two research groups have been working together on the first phase of the project for four years. Dr Dyke said: "I met my friend Dmitry Malakhov at a conference in Bristol when I did my PhD over there, and have tried to get to do fieldwork

out there [in Kazakhstan] for some years. Now I am in Ireland we have the chance."

The Natural History Division of the National Museum of Ireland is the third member of the consortium, where plans are afoot to display the findings of the research to the public. Finally, Intune Technologies, a Dublin-based laser technology company, is providing the technological support to complete the consortium.

"I am incredibly excited about this collaboration," stated Dr Dyke. "I have been researching the evolution of dinosaurs for over 10 years and have spent the last four years building up evidence for new fossil discoveries with my colleagues at the Institute in Kazakhstan. This collaboration puts us in prime position to seek funding for the next phase of the project, which will deliver a landmark event in the world of palaeontology. We have excellent partners, all experts in their own fields, and I am looking forward to some very positive findings."



The small-feathered theropod dinosaur, Dave (*Sinornithosaurus*). Photo courtesy of Mark Norell, American Museum of Natural History



Palaeontologist Dr Gareth Dyke excavates a dinosaur leg in Kazakhstan

Breakthrough in Internet connectivity

We take for granted the technology that lets us walk and talk on our mobile phones. We don't give a second thought to the myriad of masts that pass our calls from one network cell to the next as we move around.

If mobile phone signals can transfer seamlessly from one network cell to another, might it be possible to create technology that lets Internet users move from one wireless hotspot or network to another one, without any interruption? The biggest challenge in doing this is that these Internet access networks are owned by many different operators, so there is no central handover control like there is in mobile telephony.

Now researchers at UCD's Performance Engineering Laboratory (PEL) in the UCD School of Computer Science & Informatics have successfully completed the world's first demonstration of Internet access network handover. Led by brothers Liam and John Murphy, the PEL research team simulated an Internet application known as Voice over Internet Protocol (VoIP) on a laptop computer connected to a UCD wireless hotspot (WiFi) on the university campus and to a broadband station (WiMAX) owned by Eircom. These two networks are completely independent of each other, so the handover intelligence is embedded in the laptop.

"We demonstrated three scenarios," explains Dr Liam Murphy. "The first was a handover to the WiMAX due to WiFi congestion. Such a scenario might arise if lots of students all try to connect to the Internet in a wireless hotspot at the same time. In the second scenario, the laptop user was physically on the move. As the laptop was carried away from the hotspot, the quality of the WiFi link deteriorated and the system handed over to WiMAX. The third scenario involved WiFi interference from a third party, which prompted the laptop computer to handover to WiMAX in order to maintain the VoIP connection."

Dr Liam Murphy is convinced that the future of multimedia communication will be through a heterogeneous wireless network environment that gives end users the choice of network technologies. "I believe there will be competing networks who vie for each customer's business in real time." The handover process demonstrated by the UCD researchers could be a feature in the final technology that rolls out to customers and, according to Dr Murphy, the winners will be the consumers.

Chironomid collection donated to Natural History Museum

Dr Declan Murray, who retired as Senior Lecturer in Zoology in 2002, continues to pursue active research in his specialist entomological interest with the UCD School of Biology & Environmental Science.

He has recently completed a project funded by a 2005 Heritage Council Wildlife Grant. The outcome of this project is a taxonomic checklist of Irish *chironomid* species and a collection of voucher specimens *The Heritage Council Collection of Irish Chironomidae*. *Chironomids* spend most of their life in water as larvae and pupae, and are excellent bioindicators of water quality in rivers and lakes. Dr Murray was appointed to the Zoology Department academic staff in 1968, and throughout his career in UCD undertook and promoted research and taxonomic studies on these

insects with MSc and PhD students, recording over 330 species new to the Irish faunal checklist.

The collection was formally presented for permanent housing to Nigel Monaghan, Keeper of Natural History in the Natural History Museum, National Museum of Ireland, at a function on 7 March, attended by the President of UCD, Dr Hugh Brady; Eanna Ní Lamhna, President, An Taisce; and Dr Liam Lysaght, Wildlife Officer with the Heritage Council.

(Left to right): Professor Tom Bolger, Head of the UCD School of Biology & Environmental Science; Mr Nigel Monaghan, Keeper of Natural History, National Museum of Ireland; Dr Liam Lysaght, Wildlife Officer, the Heritage Council; Dr Declan Murray; Dr Hugh Brady, President, University College Dublin; Ms Eanna Ní Lamhna, President, An Taisce, Broadcaster and Naturalist.



international

Driving connections with China

When UCD advertised for a director to establish and subsequently run its new Centre for Chinese Studies in April last year, it could hardly have found a more suitable candidate than Dr Liming Wang. Grainne Rothery (BA 1986) reports.

Before taking up his new position as Director of UCD's new Centre for Chinese Studies, Dr Liming Wang spent 16 years at Queen's University Belfast, where he completed his PhD, went on to work as a senior research and teaching fellow and, from 2000, headed up the China Unit, which focused primarily on recruiting students from China. For Dr Wang, the timing was perfect: he had taken the China Unit job with the ultimate goal of setting up an institute for Chinese Studies at Queen's but, realising that this was not a major priority for the university, had started looking elsewhere for the opportunity to work on such a project.

Dr Wang's own plans for a Chinese Studies institute were very much in keeping with UCD's vision for its Centre for Chinese Studies. Its mission is to enhance mutual cultural understanding and to facilitate the expansion of economic ties between China and Ireland through four main areas of activity: recruiting Chinese students, offering teaching programmes to Irish students, developing research programmes and introducing outreach activities. To emphasise the importance of each of these four elements, Dr Wang uses the analogy of a four-wheel drive vehicle and points out that each of the parts must be in place to allow it to move forward.

Despite the fact that Dr Wang only started at the Centre in January, substantial progress has already been made. For example, the first batch of students for a new four-year BComm with Chinese Studies will enrol this September. Dr Wang believes that graduates of this programme will be very attractive in the jobs market and says that a large number of companies have already approached him looking for people with business and Chinese language skills.

The Centre will work with other Schools within UCD to develop a range of joint programmes with a Chinese element. Dr Wang has already given a presentation to all Heads of Schools and has invited them to come up with proposals for such initiatives. He says he has

received positive feedback so far and is encouraged by the support in general from the university. "Without the support from senior managers, this four wheel drive vehicle won't be able to go anywhere," he says. "My impression is that the support and interest is there. It's just for me to get the right staff in place and the infrastructure set up to work on new proposals." In the longer term, meanwhile, UCD intends to set up a BA course in Chinese Studies, as well as an MA conversion course.

The Centre will work with other Schools within UCD to develop a range of joint programmes with a Chinese element

Recruitment of Chinese students to UCD will also be a significant and lucrative element of the Centre's function. Although Dr Wang is currently recruiting an assistant director, who will be primarily responsible for this role, he has personally been highly successful in this area. He helped Queen's to enter the Chinese market in the mid 1990s, a time when he says few people had the vision to see that China would be the next big market for the UK's education sector. In June 1997, he was part of a delegation to Shenzhen University, which was led by Mary McAleese, who was Vice-Chancellor of Queen's at the time. This led to an innovative joint international foundation course, which has now been running for eight years. Before Dr Wang started to set up partnerships with a number of Chinese universities, Queen's had fewer than 30 fee-paying Chinese students. By 2004, thanks largely to his initiatives, this had risen to almost 400 students generating £3 million per year in fees.

Over the next five years, Dr Wang is hoping that UCD's intake of Chinese students will increase from just over 150 to between 400 and 500 within five years.

Other plans include the establishment of programmes to improve links with the

community, including the large Chinese population in Ireland, and the provision of consultancy services for both the Government and for companies interested in doing business in China.

Dr Wang is also very excited about the Chinese Government's recent decision to set up a Confucius Institute at UCD, which he believes to be a major coup for the university. Two years ago, China's National Office for Teaching Chinese as a Foreign Language (NOCFL) decided to establish 100 Confucius Institutes around the world to promote Chinese culture and language and to facilitate research and economic links. In fact, Dr Wang says that the objectives of these institutes are very similar to those of UCD's Centre for Chinese Studies. He will now work with senior managers in UCD and the NOCFL to develop an appropriate structure for the new institution. "The Chinese Government has approved 42 Confucius Institutes at this stage and some of these are already up and running," he explains. "I am assessing different models and we'll now come up with the model that best suits UCD and Ireland."

Currently based in the Quinn School of Business, Dr Wang is also hoping to find a new home for the Centre for Chinese Studies in the next few months. A planned visit to Ireland by the Chinese President, Hu Jintao, in the second half of this year is a big incentive for him to get both a new location and have the Confucius Institute set up by 1 July. "This will be a historic visit because, since the establishment of the new China in 1949, the President has never been to Ireland," he says. "I hope by then we will get everything ready - the Confucius Institute and the Centre for Chinese Studies - for him to visit.

Dr Liming Wang

That would be fantastic publicity for UCD as well." In the long term, he hopes that the Centre will be housed in a purpose-built, Chinese style building, which would also serve as something of a landmark in the university.

He is also planning to organise an inaugural international conference in the second half of the year. "This will be quite important in terms of profile and in terms of research related to China," he says. "The plan is to invite several keynote speakers, known scholars from across the world, to do the first day plenary sessions. The second day will consist of parallel sessions in Chinese economy and business, culture and language, and the Chinese political and legal system. The main purpose is to raise profile and to generate publicity for the Centre and UCD. If I can get these things done in 2006, it will be great."



Students experience zero gravity

Many people say they would love to float in space. This dream became a reality for UCD students Stephen Kearney and Marc O'Gríofa when they took part in the European Space Agency's (ESA) Student Parabolic Flight Campaign in July 2005. Stephen, a final year biochemistry student, and Marc, a final year medical student, formed an integral part of the four-strong multinational and multidisciplinary team. The other half of the team included students from Poland and France – a collaboration born from an earlier scientific conference.

Every year the ESA's education department organises a parabolic flight campaign to give European and Canadian students the opportunity to carry out experiments in a state of weightlessness. Stephen and Marc were among 120 lucky students selected to participate in the 2005 programme. Upon returning from their ESA visit, the team informally known as 'the Osteonauts', spent some time analysing the results, and has just put the finishing touches to its experimental report.

Under the joint guidance of UCD Conway Institute's Dr Cormac Taylor and Dr Jaqueline Daly of RCSI, the team designed an experiment to observe changes in bone-forming cells, called osteoblasts, caused by the altered gravitational forces encountered during parabolic flight. The basis for this experiment was the observation that during long duration space flight, astronauts suffer from excessive bone loss - thus inducing osteoporosis. This experimental idea won them a place on the specially



UCD students Marc O'Gríofa (far left) and Stephen Kearney (far right) with their fellow 'Osteonauts'

designed Airbus A300 called the Zero-G, or 'the vomit comet' by those with more delicate stomachs!

The experiment was carried out last July inside a specially designed high g-tolerant water-tight chamber, in order to prevent the escape of biological or chemical materials during the flight. By comparing their results with those

from a control experiment on the ground, the team could observe the impact of zero gravity on the bone cells.

The ESA Student Parabolic Flight Campaign aims to encourage talented science students into a career in space. The ESA Student Parabolic Flight Campaign 2006 will take place in Bordeaux from 18 July to 4 August.

Identity challenge

A European expert conference on the theme of *Social Transformations, Political Conflict and the Human Dimension: Comparative Perspectives on the Intergenerational Transmission of Ethno-National Identity in Ireland, Europe and beyond*, was organised by the Intergenerational Transmission and Ethno-National Identity in the Border Area (ITENIBA) team on 26 and 27 January at the UCD Geary Institute.

The Institute provided a conducive environment for two days of exciting discussion and reflection on cutting edge research in areas where social transformation and political conflict are triggers of identity change, and which are central for the promotion of peace and reconciliation.

The conference brought together a wide variety of experts to discuss generational processes of ethno-national identity change. Papers ranged from theoretical discussions to social psychology, and brought together insights from different disciplines with case studies including Ireland, Northern Ireland, the Basque Country, Catalonia, Israel, the former Yugoslavia, Mexico, South Africa and Wales.

Professor Roland, a world-class scholar who pioneered the study of globalisation, spoke about his recent work on nationalism, national identity and the future of the nation state.

The programme and full list of speakers can be found at www.ucd.ie/euiteniba. In addition, many of these papers will appear in a forthcoming special issue of the journal *Nationalism and Ethnic Politics* and in a subsequent Routledge volume.

Irish folklore meets European carnival

The UCD Delargy Centre for Irish Folklore was represented at the International Mummer's Festival in Pernik, Bulgaria, 28-31 January, by UCD PhD student in Irish Folklore, Billy Mag Fhloinn. He was part of a group that included representatives of the Museum of Country Life, Castlebar, Co. Mayo, and members of the Irish Mumming Foundation, an initiative established earlier this year to increase awareness of mumming and to promote related events throughout the island of Ireland.

Mumming is a form of folk drama enacted at specific times of the year, including Christmas, New Year and, in some European traditions, during the first days of spring. Mummies, Wrenboys, Revellers and Rhymers from Ireland performed traditional dance, song, folk drama and rhyme at the festival.

Staff and students from the UCD Delargy Centre for Irish Folklore have already established strong links with Bulgarian researchers and academics from Sofia University and the Bulgarian National Ethnographic Museum in Sofia. In partnership with the Ulster Folk and Transport Museum and



A Kukeri mummer performing at the Pernik Festival in Bulgaria (Photo: Michael Kelly)

the University of Ulster, the UCD Delargy Centre for Irish Folklore conducted a cross-border research project on mumming customs from 2001 to 2003, entitled *Room to Rhyme*. The project was supported by EU and cross-border funding.

Raising awareness of modern-day Russia

The New Russia: Perspectives and Opportunities for Ireland seminar was held at the UCD Michael Smurfit School of Business on 3 February.

The seminar aimed to better inform the Irish business community and social partners of the reality of modern Russia, highlighting commercial information and opinion that rarely gets coverage in Ireland. Russia, for example, has been the number one destination for international retailers for the past three years and is currently the fastest growing mobile phone market in Europe.

However, Ireland's interaction with Russia should not be seen merely in terms of a market for consumer goods, and the seminar also highlighted the importance of Russia to Ireland's future. Russia is the world's largest producer of natural gas and one of the world's largest oil producers. In the very near future, Ireland will be reliant on Russia as one of its main suppliers of gas and oil, and as a substantial provider of metals and raw materials.

The seminar was sponsored by the UCD Michael Smurfit School of Business, the Department of Foreign Affairs and Enterprise Ireland. Dr Peter Sutherland, the chairman of BP and Goldman Sachs International, was the keynote speaker. Dr Sutherland is also a member of the UCD Smurfit School Irish Board.



Left to right: Prof Tom Begley, Dean of UCD School of Business; H.E. Justin Harman, Irish Ambassador to Russia; Dr Peter Sutherland, Chairman of BP and Goldman Sachs International; Mr Paul Haran, Principal of UCD College of Business and Law

Understanding HIV at the cellular level

Dr Jean Marc Jacqué of the UCD School of Medicine & Medical Science talks to Claire O'Connell (BSc 1992, PhD 1998) about his efforts to solve the mystery of how HIV infects human cells.

HIV, the virus that leads to AIDS, is one of the most insidious global killers of modern times. Since its discovery in the early 1980s AIDS has killed 25 million people, making it one of the most destructive epidemics on record, according to the World Health Organisation (WHO).

Advances in drug therapy mean that HIV is no longer an automatic death sentence in countries that can provide treatment, but the retrovirus continues to ravage resource-poor regions such as sub-Saharan Africa. WHO statistics estimate that around 40 million people are infected with HIV worldwide, and almost five million people were newly infected in 2005.

We still don't fully understand how HIV infects humans at a cellular level. Last month, French scientist Dr Jean Marc Jacqué took up a new post at UCD to help piece together the puzzle.

Working at the Centre for Research in Infectious Diseases (CRID), Dr Jacqué is looking at molecular aspects of HIV infectivity, concentrating on how the retrovirus gets into the nucleus of certain cells, called macrophages, in the immune system.

He is building on research he carried out at the University of Massachusetts Medical School in Boston with Professor Mario Stevenson, one of the world's most renowned scientists in the field of HIV infection.

Jacqué's journey in infectious diseases research started with a PhD in the early 1990s at the Pasteur Institute in Paris, where he looked at how HIV interacts with the host's immune system.

In 1995, armed with his doctorate, he looked to Boston to continue his career in HIV research. "I knew exactly what I wanted to do in terms of the biology that I was interested in looking at, and Mario was just sitting perfectly with the idea of what I wanted to do," says Jacqué.

"I was interested in his approaches, how he was looking at small regulatory proteins, and in the technology he was using. I had been doing immunology before, and not molecular virology, and that's what I really wanted to do, what I wanted to learn."

His intuition about working with Stevenson was right. "The proof is that I stayed 10 years with him," he says.

Jacqué's first project in Boston looked at molecular events that control HIV's ability to infect cells. In particular he looked at a protein in the matrix, the layer just underneath the fatty envelope that surrounds the virus.

It was known that the status of this matrix protein could determine the level of infectivity and that the process of adding phosphate groups, called phosphorylation, was central to its control. "Basically if you block the phosphorylation of the matrix protein, the virus is not infectious any more, but if you over-phosphorylate it, it is more infectious," he explains.

The Boston group investigated the mechanics of how the protein is altered, identifying the enzyme that phosphorylates it and showing that it is important for infectivity. "So basically that wrapped up the whole story and said why and how it happens," says Jacqué.

Next he turned his attention to the emerging technology of RNA interference. Under normal circumstances, the DNA in our cells sends out information in the form of RNA to tell the cell how to make a specific protein. But in RNA interference, small strands of RNA block the messaging process and effectively silence the gene. The process can act as an anti-viral strategy in plants and can affect the development of some animal species.

WHO statistics estimate that around 40 million people are infected with HIV worldwide, and almost five million people were newly infected in 2005

Now scientists can harness RNA interference as a research technique and apply it to other types of cells, knocking down the expression of particular genes to work out their effects.

When it was shown that RNA interference could be used on cells from mammals, the Boston researchers decided to try it out on HIV in human cells to see what happened.

They discovered that applying RNA interference can block HIV infectivity and they published their findings in the journal, *Nature*. Their work, along with similar approaches taken by other groups looking at HIV and the polio virus, contributed to *Science* magazine naming RNA interference as the "scientific breakthrough of the year" in 2002.

Jacqué notes that while commercial companies are investigating RNA interference as a therapeutic agent, the Boston group uses it as a basic research tool to knock down genes and work out how HIV interacts with host cells.

Recently they have used the technique to investigate how HIV infects cells called macrophages in the immune system. Jacqué explains that many retroviruses infect dividing cells when the protective envelope around the cell's nucleus breaks down as a normal part of cell division. But HIV can breach the nuclear envelope and access the cell's DNA in even non-dividing macrophages for reasons that have yet to be fully worked out.

Dr Jean Marc Jacqué

Part of Jacqué's work in UCD will focus on this question. He plans a stepwise approach that uses RNA interference to look at the sequence of molecular events underpinning HIV infection in these cells and to investigate whether those events can be bypassed. "It's a very targeted approach to understanding what's going on in non-dividing cells," he says.

And Jacqué is not limiting his scope. "There are so many viruses where we can apply RNA interference and questions to be asked using the technology that it is quite possible I will look at other viruses as well. I will also be a Conway investigator, which opens a lot of collaborations within the Conway, and I think that's a good thing."

He says his move to UCD was prompted by the desire to forge his own path in research. "I have got enough knowledge of what I want to do on my own and it comes to a point when you want to develop your own approaches and stories," he says. So Mario Stevenson in Boston contacted UCD's professor of medicine, Bill Powderly, a fellow expert in HIV, and they set up meetings for Jacqué at UCD in 2004.

The French researcher liked what he saw. "I was impressed not only by the science that was being done at UCD but also with the organisation, the changes that were ongoing in terms of organising research. That was something that really struck me," says Jacqué. "That is, I think, what triggered the final decision."



Research

UCD 4th Level

Professor Michael Ryan, Dean of Doctoral Studies & Postdoctoral Training, sets out UCD's new Graduate School's vision

With the Irish Government's recent commitment to the establishment of 4th Level Ireland, it is imperative that UCD provides innovative programmes for graduate, doctoral and postdoctoral training of international status. The development of UCD's five new Graduate Schools is well underway, with enrolment of students scheduled to commence in September 2006. The UCD Graduate Schools will work with each School in their constituent College to coordinate, facilitate and add value

to existing and new graduate programmes. This will entail a programmatic approach to 4th Level training across the university with a series of modular taught elements that build researcher's skills and support their research activity and career development. The key strategic objective of the UCD Graduate Schools is to establish the UCD Research Masters and PhD as premier research training programmes, making UCD the 'University of Choice' for graduate research and education.



European Graduate School best practice and guiding principles

The implementation and development of the UCD Graduate Schools is being founded on European best practices and guiding principles.

The Bologna Seminar on Doctoral Programmes for the European Knowledge Society, held in Salzburg, Austria, in February 2005 provided the first major forum to discuss the new Action Line in the Bologna Process. This action line is entitled 'European Higher Education Area (EHEA) and the European Research Area (ERA) - Two Pillars of the Knowledge-based Society'.

The main findings of the European Universities Association (EUA) on the structure and organisation, financing of doctoral programmes, supervision and quality assurance measures, innovative practices and joint doctoral programmes helped significantly in identifying the following 'ten basic principles' which have become known as the Bologna/Salzburg Principles.

The Bologna/Salzburg Principles:

- 1. Core component of doctoral training is the advancement of knowledge through original research:** At the same time it is recognised that doctoral training must increasingly meet the needs of an employment market that is wider than academia.
- 2. Embedding in institutional strategies and policies:** Universities as institutions need to assume responsibility for ensuring that the doctoral programmes and research training they offer are designed to meet new challenges and include appropriate professional career development opportunities.
- 3. The importance of diversity:** The rich diversity of doctoral programmes in Europe - including joint doctorates - is a strength which has to be underpinned by quality and sound practice.
- 4. Doctoral candidates as early stage researchers:** should be recognised as professionals - with commensurate rights - who make a key contribution to the creation of new knowledge.
- 5. The crucial role of supervision and assessment:** in respect of individual doctoral candidates, arrangements for supervision and assessment should be based on a transparent contractual framework of shared responsibilities between doctoral candidates, supervisors and the institution (and where appropriate including other partners).
- 6. Achieving critical mass:** Doctoral programmes should seek to achieve critical mass and should draw on different types of innovative practice being introduced in universities across Europe, bearing in mind that different solutions may be appropriate to different contexts and in particular across larger and smaller European countries. These range from Graduate Schools in major universities to international, national and regional collaboration between universities.
- 7. Duration:** Doctoral programmes should operate within an appropriate time duration (three to four years full-time as a rule).
- 8. The promotion of innovative structures:** to meet the challenge of interdisciplinary training and the development of transferable skills.
- 9. Increasing mobility:** Doctoral programmes should seek to offer geographical as well as interdisciplinary and inter-sectoral mobility and international collaboration within an integrated framework of cooperation between universities and other partners.
- 10. Ensuring appropriate funding:** The development of quality doctoral programmes and the successful completion by doctoral candidates requires appropriate and sustainable funding.

Features of the new UCD structured PhD programmes

- Top national and international students attracted to UCD PhD programmes by innovative marketing, the provision of scholarships, high quality pastoral support, and the reputation of UCD's research community
- Streamlined systems of assessment of applicants with on-line registration and tracking of subsequent progression towards degree
- First year of PhD programme with structured 'taught courses' in generic and domain-specific areas and opportunities to experience a number of research topics
- Assessment/Decision point at end of first year when student has the option of either entering the workforce with a masters degree or progressing to a full PhD degree
- Years 2-4 of PhD training characterised by a high quality research experience supplemented by formal training in key technologies, management and communications
- Formalised career development and, where relevant, targeted skills enhancement visits to partner national and international centres and external work placements
- Course content and oversight of quality of the programmes including supervisory arrangements by the UCD College Graduate School and the UCD University Graduate Schools Board.
- Following graduation and entry into the workforce, continued access to key taught courses in emerging areas through either e-learning or new 'refresher' courses tailored for lifelong learners

UCD graduate's 'mood phone' wins \$10,000 competition

John Finan, BE Mechanical (2001), has won a US\$10,000 cash prize in the Motorola MOTOFRD competition for his 'mood phone'. John's proposal is a phone that employs a variety of adaptive algorithms to interpret mood in its user (and those around him or her) almost as well as a human, and passes the information on in the form of colour.

Speaking of the award-winning concept, Padamasree Warrior, Motorola's Chief Technology Officer said: "The 'mood phone'

is a truly inventive technology solution to a problem most of us wouldn't assume could be answered with a mobile device. If the technology becomes reality, it would make all of our lives easier."

The MOTOFRD competition asked college students to envision the future of seamless mobility. Concepts ranged from the fantastic to the practical, and included mobile technology that could access information, contacts, music and video within the blink of an eye, to location-aware cell phones that could lead to

new friendships, or help identify and book a vacant parking spot in a crowded city.

"As his ex-project supervisor, I am very proud of John and his achievements," said Professor Michael D. Gilchrist, UCD School of Electrical, Electronic & Mechanical Engineering.

"John was consistently among the top of his Mechanical Engineering class and he combined a rare level of academic brilliance with creativity. He keeps in contact with his alma mater; In fact, he visited very recently to give a seminar."

International Mathematical Olympiad

The 2006 International Mathematical Olympiad (IMO) will take place in Slovenia next July. Training is already well underway – on Saturday mornings from November to May, several of the brightest second-level students in the country can be found participating in special Mathematics classes or "IMO training and enrichment programmes" in UCD, UCC, NUIM and NUIG.

The first IMO took place in Romania in 1959 with seven countries from the region participating; now around 90 countries participate annually. Each country is invited to propose five questions for inclusion among the six to be used in the competition. These questions must be original – there is an onus on the proposer to ensure that no equivalent problem is given in any book, or selection of problems, available to students or mathematics teachers. Also, the proposer must ensure confidentiality of the problems submitted, so that they cannot influence the training of a team. There is no explicit syllabus, but the questions are in the area of "school mathematics" – Euclidean geometry, algebra, inequalities, discrete mathematics, number theory. However, a knowledge of mathematics good enough to get full marks in the Higher Level Leaving Certificate examination, or equivalent in other countries, does not ensure that one can score a single



Mrs Maria Gaines (wife of the late Dr Fergus Gaines) presenting the Irish Mathematical Society Gaines Cup to the winner of the 2005 Irish Mathematical Olympiad, Fiachra Knox, then of Gormanston College. Fiachra Knox went on to win Ireland's first silver medal, at the 2005 IMO in Mexico.

mark in the IMO. Hence, there is the need for the enrichment programme. Students on the training programme take a number of tests, culminating in an Irish Mathematical Olympiad (IrMO) in May, and the top six students are invited to form the team to represent Ireland.

Ireland has competed in the IMO each year since 1988. The inaugural Irish IMO Participation Committee included representatives from the Departments of Education and Foreign Affairs, Professor Finbarr Holland of UCC, and Professor Thomas Laffey and the late Dr Fergus Gaines of UCD.

As well as Professor Laffey's and the late Dr Gaines' involvement in the early stages of Irish participation, UCD has continued to provide facilities and support for the activity. Several mathematicians have given freely of their time, including many Saturday mornings, to deliver the lectures of the enrichment programme, mark the tests and deal with correspondence with students and their teachers. Currently Professor Laffey, Dr Kevin Hutchinson and Dr Mark Dukes, who was himself a member of the 1994 Irish IMO team, deliver the enrichment programme.

African Association for Teacher Education

Dr Maureen Killeavy of the UCD School of Education and Lifelong Learning, President of the Association for Teacher Education in Europe, recently headed up a European Delegation to the Constitutive Conference 2006 to establish an African Association for Teacher Education, held at the University of Dakar, Senegal.

The signing of the constitution and protocol was an event of major significance for education systems in Africa and a truly global gathering of the leaders of research and development in teacher education. It is hoped that these various regional Associations will form a worldwide network on teacher education. The involvement of a UCD academic in these historic developments was a first for a European educator.

Signing the new constitution and the protocol: (Left to right) Dr Maureen Killeavy, President, Association for Teacher Education in Europe, Senior Research Fellow, UCD School of Education and Lifelong Learning; The Professor of Pedagogy, University of Dakar, representing African institutions; Professor Aboubaker Chedikh Beye, Assesseur de La Faculté des Sciences et Techniques, Université Cheikh Anta Diop de Dakar, ECAD, Senegal; Professor P Rudy Mattai, SUNY Buffalo, New York, President, Association of Teacher Education of America



New senior appointments at UCD



Mr Eamon Drea

Eamon Drea has been appointed Director of Human Resource Strategy at UCD and, in conjunction with the Senior Management team and the Personnel management team, will be responsible for the re-structuring of human resource activity.



Ms Anne-Marie Harvey

Anne-Marie Harvey has been appointed Director of Student Recruitment, and will lead a team dedicated to achieving UCD's strategic objective of recruiting an excellent and diverse student body.



Professor Nick Quirke

Professor Nick Quirke has been appointed Principal of the College of Engineering, Mathematical and Physical Sciences, and will join UCD from Imperial College London.

health

Identifying patterns to improve public health

Professor Cecily Kelleher, Head of the UCD School of Public Health and Population Science, explains to Louise Holden how detailed research can help to direct policy towards better health.

Longer and healthier lives are within our reach. Scientists are starting to decipher the elaborate equations of genetics, environment and health. With this new knowledge, medical treatment and preventative practice have improved. However, many individuals and groups are not inheriting the gains of health science. In order to avoid the ghettoisation of disease, it is incumbent on Ireland's health researchers and policy makers to examine the nation's health with a bird's eye.

The newly established UCD School of Public Health and Population Science is the first such academic body in Ireland. The School was created last September from a union of the Department of Public Health, Medicine and Epidemiology, the Centre for Safety and Health at Work, the Centre for Sports Studies, the Cystic Fibrosis Registry and the National Nutrition Surveillance Centre. With links across the campus, its staff are involved in a range of cross-disciplinary projects.

Head of School Professor Cecily Kelleher has a vision for public health in Ireland. "Here in UCD we have strategic opportunities to enhance public access to better health, by influencing policymakers through research. This generation has unprecedented access to good health, but there is a dark side; traditional patterns of inequality are changing and so too are patterns of ill-health. We cannot allow pockets of disadvantage, with all their associated health problems, to develop in urban sprawls and elsewhere. We need to avoid the problems that have visited other countries."

Since taking up her position as Head of School, Professor Kelleher has been involved in a number of health surveillance projects including the Obesity Task Force, the National Health and Lifestyles Surveys and, most recently, the Lifeways Cohort.

The Lifeways Cohort is an extensive national project funded by the Health Research Board following the health outcomes of 1,124 mothers, their parents and their own children over five years. It is hoped that this wide-ranging generational study will make valuable connections between the life courses and the health of individuals within their wider family context. The children are now at toddler stage.

"Social variations across the life course influence health," Professor Kelleher explains. "The Lifeways Cohort involves over 1,000 families, each comprising at least one mother,

one child and one grandparent. About a third of fathers are also involved. Participants complete detailed questionnaires on health and social issues: where they live, their own attitudes to health, their lifestyles. We are also collecting information from GPs and hospitals pertaining to the mothers' obstetric histories, frequency of attendance of family members at the doctor and so on. We hope, in the course of this study, to gain some real insights into some of the common factors attending everyday illnesses."

Professor Kelleher takes the example of childhood asthma, a growing condition that now affects at least one in six children in Ireland. "We hope to identify some patterns in maternal diet, heritability or environment that might take us closer to understanding this condition."

Patterns of health across the country are the subject of a number of studies currently underway at the UCD School of Public Health and Population Science. Geocoding of health services is an important tool for understanding how geography and access to healthcare interrelate. Everything from heart disease care to blood donation patterns is under scrutiny here, all with the objective of providing more effective interventions in a more democratic manner.

When policymakers have detailed information about health patterns in Ireland they are better equipped to direct policy towards better health for all, Kelleher explains. They are also in a position to intervene with well-directed funding at points along the life cycle of citizens that may offset more costly and less effective interventions later.

Professor Kelleher and her teams are keenly concerned with confronting misplaced and wasted expenditure in the health service. Health economics is a central discipline of the School's research in association with the UCD Geary Institute and the UCD School of Economics. "The ramifications of a project like Lifeways in terms of health economics are considerable," she predicts. "Information linking life course factors and health service use can provide government with very valuable guidance when deciding how to get the best 'bang for the buck' in terms of investment. For example, early investment in the mother and infant may reduce the need for more expensive investment in heart disease care later."

It is useful, too, to understand how Ireland's health patterns differ from other countries'. With an unusual two-tier health service and a protean population profile, it is important not to let negative health patterns 'sneak up' on unsuspecting services and to learn from the experiences of other jurisdictions. The UCD School of Public Health and Population Science has extensive links with academic institutions conducting similar research projects around the world.

Professor Kelleher maintains a presence in both the public domain and in medical practice. As chair of the Women's Health Council, she has overseen the publication of this month's report on Women and Cancer in Ireland. She was also a member of the National Taskforce on Obesity. As current head of the Department of Preventative Medicine and Health Promotion in St Vincent's University Hospital in Dublin, she spends one day a week working on programmes related to smoking cessation, dietary interventions and other preventative practice at the hospital. Meanwhile, Professor Kelleher continues to pursue her own research interests in the area of population health, with startling results.

Louise Holden is an Irish Times journalist, and is currently enrolled on the MEd programme at UCD.

Hurling alone? The peculiar hearts of the Irish in America

Professor Cecily Kelleher, Head of the UCD School of Public Health and Population Science, secured Fulbright Scholarship funding for a unique research expedition into the archives of the United States census, and her findings have recently been published. Her mission was to trace the socio-economic and morbidity profiles of first generation Irish people in America in the three decades after the famine, and to compare their health patterns with other US populations at the time.

"I spent six months in basements at Harvard and Ann Arbor, analysing US census data from 1850 to 1970, social and epidemiological data from Boston and data from Ireland's National Nutrition Surveillance Centre, as well as literature on Irish migration," Professor Kelleher recalls. "It was painstaking work but I just had to roll up my sleeves and get on with it. What I discovered was worth the effort."

The Irish in America, it appears, were at increased risk of cardiovascular disease, a risk that is related to disadvantage across at least two generations. The main difference between the Irish and other deprived immigrant groups, such as the Italians, was dietary habits influenced by experiences during the Irish famine. The Irish displayed strong community networks and social support structures, the 'social capital' that might have been expected to offset wider disadvantage, but it did not protect them from increased morbidity from heart-related disease.

Adults were not the only victims, Professor Kelleher discovered. "I visited the Boston Library with my son and found the only known copy of the records from a Boston Neighbourhood Study of the 1930s. It transpired that the highest rates of infant death were recorded in Charlestown, which had the highest level of Irish immigration in the country. I was nearing the end of a long study and we photocopied the document with our last dime."

Prof Cecily Kelleher



A revolution in recycling

Dr Kevin O'Connor has been heading a microbiology research group in UCD since 2000. He talks to Danielle Barron (BSc 2005) about how pollutants can be converted into environmentally friendly products.

A self-confessed workaholic, Dr Kevin O'Connor took up running three years ago to get out of the office. A mere hobby at first, he then ran the Dublin City Marathon and eventually became a member of Dundrum South Dublin Athletic Club. He now runs every day, covering a total distance of up to 70 miles each week.

"I definitely have a better balance now between work and life," admits O'Connor.

But despite all that running, Kevin O'Connor is still a busy man. He has a full timetable, teaching microbiology to undergraduates in the UCD School of Biomolecular & Biomedical Science.

Fascinated by science, a career in microbiology was always O'Connor's first choice. He undertook his primary degree in University College Cork, and also obtained his PhD there, working under Dr Alan Dobson.

"I found my undergraduate degree very interesting, but it was at postgraduate level that I found out, yes, I really am interested in this. I definitely wanted to pursue research," says O'Connor.

It was during his doctorate that he first studied biodegradation, or the use of micro-organisms to degrade toxic compounds. He then undertook postdoctoral research in the Netherlands and Switzerland where he worked on using micro-organisms to make valuable compounds (biocatalysis).

He eventually returned to Ireland in 1999, starting in UCD in September of that year. At first he was predominantly lecturing, but his research group started up in September of the following year when he took on his first PhD student.

His current research in the field of biocatalysis is funded by the Centre for Synthesis and Chemical Biology (CSCB). This research has brought him into the news recently, but O'Connor has been working on this project since 2000. Making biodegradable plastic using different organisms was already a well-known procedure, one that the microbiologist and his team planned to expand on.

"What we were trying to do was come up with a different angle. We were asking, could pollutants be converted into valuable products, such as biodegradable plastic?"

The original compound that O'Connor used in the process was styrene, the main ingredient of polystyrene. But the team realised that the conversion of polystyrene itself to biodegradable plastics would be of greater value.

However, their particular bacterium didn't grow on polystyrene. This led to O'Connor contacting Professor Walter Kaminsky of the University of Hamburg, an expert in pyrolysis. This special technique uses temperatures of up to 520 degrees to heat the plastic in a vacuum, producing a liquid form of the styrene.

O'Connor had a fair guess that their bug would grow when fed this styrene oil, and indeed it did, producing the biodegradable plastic PHA (polyhydroxalkanoate).

Extracting this plastic from the bacteria is a very simple procedure that involves soaking the bugs in a mild detergent. "Basically the detergent rips the bugs open in order to extract the small granules of plastic from each cell," explains O'Connor. The plastic is cleaned and it is then ready to be used.

O'Connor is now working on improving the efficiency of the technique, using a combination of feeding and molecular strategies. At present some 30-35% of each bacterium is plastic; his team are looking to increase this yield to as much as 80%.

There is a myriad of potential uses for the PHA plastic. A recyclable plastic, it will be environmentally friendly, but O'Connor also believes its uses will extend beyond mere packaging. As it is biodegradable, it will be safe for use in the body and thus could have many possible medical applications. This is in contrast to conventionally recycled plastic.

Transporting polystyrene halfway across the world to recycle it is not environmentally friendly. My attitude is that you should really be recycling on site

"Polystyrene is a very recyclable plastic," stresses O'Connor. The problem is, once it's recycled, people aren't quite sure what to do with it. Recycled polystyrene produces a plastic of a lower grade and so it cannot be used in the food industry. It can be made into 'timber look' plastic for making picnic tables and chairs, for example, but O'Connor says the market for this is limited.

"People tend not to recycle it because there's no end use, or a very small end use," he explains.

Currently, polystyrene for recycling is exported to China. But O'Connor believes this is an inefficient practice, and proposes instead a municipal recycling scheme, where people deposit their waste plastic.

"Transporting polystyrene halfway across the world to recycle it is not environmentally friendly. My attitude is that you should really be recycling on site."

And this revolutionary method of recycling is not limited to polystyrene, or O'Connor's particular bug, for that matter.

"We have used our technology for polystyrene but you can apply the same strategy to recycling any plastic. Also there are hundreds of different bacteria that will make different types of plastic so opportunities are huge," he says.

While PHA is still emerging in terms of world markets, O'Connor maintains that in the future this will change, with people looking at alternatives to traditional plastic.

It is clear that O'Connor is not just concerned with recycling in the lab, judging from the large pile of plastic bottles in the corner of his office. In fact, along with a master's student, he was responsible for setting up the paper recycling scheme within UCD, which they ran for about 18 months before the college took over.

"When I first came back here in 1999, I came from Switzerland where everything was recycled and I was appalled at what was going on here," he recalls.

Back in the lab, however, he remains excited by his work and the collaboration between chemistry and microbiology from which it resulted. O'Connor sees such cross-disciplinary collaborations as a major source of new innovations.

"People have to have respect for other people's areas of expertise. I love collaborating - it really does work," he says.

So when he's not saving the planet, or running marathons, what else does Kevin O'Connor do? He grins. "I sleep!"

Dr Kevin O'Connor



Nature teaches computers how to solve real-world problems



Predicting the future for financial gain is a difficult, sometimes profitable, activity. Dr Michael O'Neill and Dr Anthony Brabazon of UCD's Natural Computing Research and Applications Group (NCRA) have turned to nature to develop computer-driven financial models that help develop successful trading strategies and assess credit risk. Their book, *Biologically Inspired Algorithms for Financial Modelling*, was launched on 25 February at the UCD Clinton Institute.

Drawing inspiration from a wide array of natural mechanisms - including biological evolution, the workings of the central nervous system, the human immune system and models of social interaction - Dr O'Neill and Dr Brabazon use biologically inspired algorithms for prediction and classification, effectively replicating the step-by-step natural selection process through a computer programme.

An example of their work is a case using the natural immune system for bond rating classification. The natural immune system is a

highly complex system, comprising an intricate network of specialised tissues, organs, cells and chemical molecules. The natural immune system can recognise, destroy and remember an almost unlimited number of pathogens (such as viruses, bacteria and parasites). It protects the body by being able to distinguish between self and non-self. Crucially, it does not require exhaustive training with negative (non-self) examples but can identify, as non-self, items that it has never before encountered. Dr O'Neill and Dr Brabazon draw on the mechanisms of natural immune systems, including their ability to distinguish between self and non-self proteins, to design pattern-recognition algorithms that can be used to create a classification system to distinguish between investment and junk-rated bonds.

According to Dr Brabazon, "Nature has evolved and fine tuned biological systems over many millions of years. We can draw on this learning by taking ideas from biological systems and combining them with computers to create powerful problem solvers."

Left to right: Dr Michael O'Neill, Prof Barry Smyth (Head of UCD School of Computer Science & Informatics), Dr Anthony Brabazon

Wyeth research facility established at UCD

Wyeth Corporation - one of the largest research-based pharmaceutical and healthcare product companies in the world - is to establish a biotherapeutic drug discovery research facility at UCD Conway Institute, with the support of IDA Ireland. The €13 million facility will employ 12 top-class research scientists focusing on product discovery, pre-clinical research and drug discovery technology development.

Wyeth Research Ireland will be a wholly integrated protein drug discovery and development operation. It will utilise advanced new technologies to discover the next generation of therapeutic biopharmaceuticals in three distinct product families: antibodies, fusion proteins and native biologics. Its work will focus on five main disease areas: inflammation, oncology, women's health and musculoskeletal biology, and drug discovery technology development.

New exchange programme with Bangalore

UCD Michael Smurfit School of Business signed the first ever Irish-Indian exchange programme with the Indian Institute of Management in Bangalore (IIM-B) in January. The Minister for Education and Science, Mary Hanafin, TD, officiated at the signing in Bangalore during the Government's trade mission to India.

The agreement will enable MBA students from UCD and the IIM-B to take a part of their programme in the partner school, providing them with a unique insight into their host country. There will also be opportunities for the UCD Smurfit School faculty to spend time at the IIM-B on a reciprocal basis.

The IIM-B is one of five schools making up the Indian Institute of Management, and is widely regarded as the number one business school in India. Each year, about 175,000 Indian candidates take the IIM entrance exams for a mere 1,250 MBA places, making the IIM the most difficult postgraduate business school in the world to enter.

Dr Breffni Tomlin, Academic Director, National Institute of Technology Management, UCD Smurfit School; the Minister for Education and Science, Mary Hanafin, TD; and Professor S. Raghunath, Corporate Strategy & Policy Area Chairperson, Student Exchange Programme, Indian Institute of Management Bangalore, at the signing in Bangalore during the recent Irish Government trade mission to India.



NovaUCD-based entrepreneur wins award

Dr Brian Kelly, co-founder of NovaUCD-based company Celtic Catalysts, won the Eastern Regional Final of the Shell Livewire 2005 Young Entrepreneur of The Year Award.

In December 2005 he went head-to-head with seven other young hopefuls from across Ireland to compete for the coveted Shell Livewire Young Entrepreneur of the Year title. The Livewire Programme - which is sponsored worldwide by Shell and partnered locally in Ireland by TV3, the City & County Enterprise Boards and Invest Northern Ireland - celebrates the spirit of enterprise in young people aged 16-30.

Celtic Catalysts, a life sciences discovery and process optimisation company, was founded by Dr Brian Kelly and Dr Declan Gilheany as a spin-off from the UCD School of Chemistry and Chemical Biology.



Dr Brian Kelly, co-founder of NovaUCD-based Celtic Catalysts

UCD Connect group facility: case study

Keen to foster closer contact with her students and to create better identification with particular subjects, Dr Ann Lavan, senior lecturer in the UCD School of Applied Social Science, was quick to recognize the potential benefits of UCD Connect and, in particular, its group facility.

Having grasped the basics about setting up and using groups in her initial UCD Connect training a couple of years ago, she decided to create one for her MBS class in the UCD Business School in Blackrock last September. Pointing out that there was quite a learning curve, she says that Justin Rowe in Computing Services was enormously helpful in getting it up and running for her. "He took me patiently through all the steps and demonstrated the capacity of the group facility," she says. "He was so conscientious about every query I had."

According to Lavan, the group is a very efficient way of sending reading lists, links to relevant websites, class presentations and reminders about coursework. Having experienced the benefits of the group facility, she says she will probably insist that next year's batch of students all come on board with UCD Connect and are group enabled. "I think the group facility has huge potential and I'm planning a much more extensive use of it in September - with post grad students in Social Work, as well as my MBS students," she says. "I also believe that the courses facility, which will be pre-populated with undergraduates in each course, will be very useful next year."

Lavan is also keen to encourage other members of staff in her school to use UCD Connect and the group facility more widely. "Before Christmas I invited Justin Rowe to make a presentation to the staff to introduce them to the group facility," she says. "This has stimulated real interest among colleagues, who are now planning to follow up with him."

"For the future, we need to actively follow through on plans to use it and ensure that people are familiar with its functionality," she says. "The Calendar function was well promoted but people find it difficult to learn how to use it. However, some of my colleagues are now saying they're finding it very useful. It's all about sharing experiences and working together to get the best out of it."



*Dr Ann Lavan,
Senior Lecturer,
School of Applied
Social Science with
Brian Morrissey, UCD
Computing Services*

Five of the Best... reasons to use UCD Connect

1. Access from anywhere

UCD Connect provides the same set of services regardless of where you are. It works the same way whether you're in UCD, at home or abroad. You also have access to any files stored on the UCD network.

2. Access to electronic journals provided by the Library

Literally hundreds of journals are available to view online through *The Library at UCD 24/7* channel. Also, for the first time, you can see at a glance your library account through the *My Account* channel on the *My Library* tab.

3. Groups

The number of UCD Connect groups has increased dramatically recently with a significant take up by University Schools and by Clubs and Societies. The facilities to mail group members, send announcements and update the group calendar make communicating with a disparate group very easy. It is also easy to share documents (such as minutes, reports etc) with members of the group.

4. Personalise UCD Connect to suit yourself!

There are now over 100 optional channels to choose from. These include access to European Newspaper feeds updated daily, Humbul Humanities channels, various governmental information feeds, educational technology channels and an assortment of entertainment reviews. For information on adding channels go to www.ucd.ie/itservices/ucdconnect/customisingchannels.html

5. Staff access to Puremessage

There are more than 2,000 UCD staff using the Puremessage service. Over half of the mail destined for UCD staff accounts is unwanted. Puremessage provides an effective means of dealing with this mail by quarantining 'suspect' mail in a daily digest. Specific mails can be retrieved from quarantine via the digest. To sign-up for Puremessage, go to the My Services tab and click on the Subscribe button in the Puremessage channel.

To find out more about UCD Connect, please contact Justin Rowe at (716)2024.

UCD is a leader in disability studies

UCD last month received an O2 Ability Award for its leadership position on disability. The Awards, now in their second year, reward organisations that recognise the contribution that people with disabilities make to business.

The award was possible due to the success of UCD's certificate course in Citizenship and Advocacy for students with intellectual disabilities, launched in 2004. It is co-ordinated by Anne O'Connor (BSocSc, MSocSc), UCD Centre for Disability Studies. She said about the award:

"Winning an O2 Ability Award has provided this programme with national recognition for this unique opportunity for students with intellectual disabilities. This experience has far-reaching consequences, not only for the educational benefits but also for increasing the self-esteem and feelings of self-worth the students."

The course allows students with an intellectual or other disability to participate in university life, as it entails enrolling in UCD and attending classes part-time for one year. It aims to inform

students about their rights as Irish and European citizens, and to develop their communication and self-advocacy skills.

The course is run in conjunction with other UCD Schools, in order to provide the students with the opportunity to study subjects such as Information Technology and Horticulture and Environment. Anne O'Connor is a frontline member of staff, as she tutors some of the modules on the course. The other tutors are teachers and service providers within the disability field.

Forty students have graduated with Certificates in Citizenship and Advocacy from the course so far. There are currently 23 students in Belfield, and 12 more taking part in a pilot course outsourced to Ennis, Co. Clare (in conjunction with the Brothers of Charity).

Anne O'Connor said about the course: "The Centre for Disability Studies recognises that this programme has the ability to transform into a far greater initiative, benefiting all students and staff at UCD - an opportunity that should not be allowed to pass."

Anne O'Connor (BSocSc, MSocSc)



Pictured at the O2 Ability Awards are (left to right): Ms Caroline Casey, UCD alumnus and founding CEO of the Aisling Foundation and the O2 Ability Awards; Dr Padraic Conway, UCD Vice-President for University Relations; Mr Frank Fahey, TD, Minister of State at the Department of Justice; Ms Danuta Gray, CEO O2 Ireland.

UCD Volunteers have a ball

For the third year running UCD Volunteers Overseas is organising what has become known as the Delhi Ball. This is one of the charity's most important fundraising events and all the money raised will support projects in Delhi, Haiti and Niger. Staff and students, who pay their own costs, are travelling to these countries to do voluntary work for the month of July. Seventy staff and students will take part in these projects, continuing the work that began in 2003.

The Ball takes place in the O'Reilly Hall in UCD on 27 May. Tickets are priced at €100, which includes a pre-dinner drinks reception, a four-course meal including wine, a band and DJ (helping to shake off the effects of the meal!). We need your support.

For more information on UCDVO see www.ucdvo.org.

For more info about the Ball contact deirdre.moloney@ucd.ie.



Delhi Ball May 2005

Students of Equality for Older People awarded UCD Certificates

Twenty students were presented with Certificates in Equality Studies (Issues for Older People) in December 2005 by Dr Bairbre Redmond, Vice-Principal for Teaching and Learning, UCD College of Human Sciences.

This unique course was developed by the UCD Equality Studies Centre with support from the HEA Targeted Funding Initiative, and run in association with Age and Opportunity, the national agency with responsibility for promoting positive attitudes to ageing. The Equality Studies Centre is located within the UCD School of Social Justice.

The course provides a focus on equality issues for older people and also serves as a model for

supporting access to and participation in third level education by older people from diverse backgrounds. The barriers faced by older people in education include lack of previous educational opportunities, limited information, lack of confidence, limited financial means and, in many cases, distance from educational centres.

The course commenced in February 2005 and was delivered in five blocks, most of which were residential. Twenty-four students from 13 counties were selected and registered as UCD students. They included both older people and those working with older people (including VEC community education facilitators and health board active age facilitators).

Arising from the network developed throughout the course by older people and representatives of key agencies, students engaged in work placements in approximately 20 national and local organisations. This network will now be used to promote continuing access to higher education for older people.

Front Row L-R: Maeve Conway, Catherine Rose, Kevin Molloy, Sheila O'Flynn, Kitty Harlin, Gretta O'Connor, Anne MacNamara. Middle Row L-R: Dr Phyllis Murphy (co-ordinator of UCD ESC Outreach), John Baker (co-ordinator of UCD ESC), Eileen Hanley, Frances Greene, Andrea Pepper, Margaret Kennedy, Anne Malone, Marie Moran (UCD ESC), Dr Bairbre Redmond (Vice-Principal, UCD College of Human Sciences). Back Row L-R: Prof Kathleen Lynch (Chair of Equality Studies), Anne O'Neill, Margaret McCartin, Paul White, Sheila O'Flynn, Marian Jameson, Helena Poole-Stapleton.



Photo: Tommy Clancy

New hope for Sri Lanka fishermen

December 2005 saw the realisation of the Sri Lanka Boats Project, initiated by Dr Chandralal Hewage in the wake of the Christmas 2004 tsunami. The project aimed to deliver practical help to the fishing communities of Sri Lanka - one of the areas most affected by the tsunami.

Dr Hewage, who is manager of UCD Conway Institute's NMR facility, is a native of Sri Lanka and lost 30 friends and relatives in Galle to the tsunami. The joint efforts of Dr Hewage and the Irish-Sri Lanka Trust Fund raised enough money for 15 new fishing boats, 4 of which were funded directly by the Conway Institute's International Evening; other donations were made by staff, students and suppliers.

On his return to Sri Lanka last Christmas, Dr Hewage launched the boats at a special ceremony in the Dhanusha Marine boatyard in Colombo. The boats are fibreglass one-day vessels fitted with 15 HP Yamaha outboard engines and are ideally suited to the smaller fishing villages of this area.

Dr Hewage would like to thank everyone who contributed to the Sri Lanka Boats Project. Speaking of the fundraising efforts he said: "The sympathy, enthusiasm and generosity displayed by so many people so far removed from Sri Lanka in achieving such a practical and worthwhile result has been well appreciated by the recipients of the boats."



Official launching of the UCD Conway Institute boat by Dr Chandralal Hewage in Sri Lanka

UCD girls outclass the best of British volleyball

The fighting Irish were out in force, as they showed their true colours by fighting off the best of British student volleyball to take home the coveted English Student Cup for the second time in three years.

After a disappointing third place in 2005, UCD was out for nothing less than the number one spot when they headed off to Leeds on 10 February. In 2004 UCD became the first non-English team in the history of the event to snatch the giant trophy, but last year narrowly lost out to a strong Loughborough team in the semi-final. This year UCD reclaimed its title and walked away with another first for Irish volleyball.

The pools draw saw UCD play bright and early on the Saturday morning against University of York's finest. UCD made quick work of the English side, collecting their two-set victory with minimal effort. However, things were not going to be plain sailing as the Irish side had their second match against the 2005 Student Cup champions, Sheffield. UCD won the game and guaranteed the team a slot in the top section of the competition. Day one was a complete success for the Irish girls as they left the Sports Hall after topping their group without even dropping a set.

Day two brought the quarter final and UCD battled it out with the prestigious Cambridge University. Cambridge began strong, taking an early 5-0 lead in the first set. A comfortable win in the second set bought UCD a much sought-after place in the semi-final later that day.

With the last 10 years seeing Loughborough engraved on the Student Cup a record-breaking seven times, UCD was faced with a massive obstacle if it was to earn a place in the final. On Sunday, 12 February, in Leeds University, history was made: UCD finally defeated

Loughborough! Unbelievable determination brought truth to the fighting Irish reputation as the Dublin girls fought hard and fast to score points against the previous champions.

UCD were victors and proceeded to claim their place in the final, playing against the University of Bath. Bath proved to be highly competitive after coming from behind against

Sheffield in the other semi-final to send the 2005 champions packing. Their star player was as strong in defence as she was in offence; after she wiped the floor with the Sheffield defence she was waiting for another team to crush. UCD, however, had some very different ideas.

The crowd watched the fighting Irish cheering as UCD's team play stampeded through each

set, with a variety of attacks coming from all over the court. When the final futile Bath attack bounced off the court UCD stormed together in the centre. The English Student Cup Champions 2006: they thought it would never happen again, but how wrong they were. UCD celebrated late into the night and finally arrived back in Dublin on Monday morning, exhausted but triumphant.



Team List: Pauline Walsh (Capt), Jennifer Walsh (Middle), Noemi Kuncik (Middle), Ruth Stafford (Middle), Claire Walsh (Wing), Eleonor Dunne (Wing), Oliva Smith (Libero) and Lauren Murray (Middle), Lyndsey Condell (Opposite), Coach; Paul McKeever, Assistant Coach; Doireann Counihan

National Equestrian Intervarsity Championships 2006

UCD recorded a convincing victory at the National Intervarsity Equestrian Championships 2006 hosted by the University of Ulster, Jordanstown. Having won the Tetrathlon Intervarsity in November 2005, the squad travelled to Eglington Equestrian Centre in County Derry, hoping to emulate the historic back-to-back intervarsity victory achieved by the club more than 10 years ago.

UCD realised their ambitions with consistent performances throughout the competition, ensuring they walked away with the overall victory ahead of Gurteen College.

Having won the dressage title for the last five consecutive years the club was confident of a strong performance in this competition. Last year's team members Emma Ponsonby and Laura Toogood were joined by Jenny Lambert.

The team, which also won the colours competition a few weeks prior to the intervarsity championships, continued its unbeaten record to convincingly win the title. The UCD 2nd team also put in a strong performance to finish in runner-up place.

Laura Toogood repeated her victory at colours and beat 84 riders to win the individual championship, finishing 26 points ahead of her

nearest rival. Club captain Emma Ponsonby finished in third place and UCD 2nd team member Amy Fitzgerald finished sixth. Jenny Lalor was the highest placed of UCD's showjumping squad when she completed well up the order in 10th place out of a strong field of 125 competitors. The Prix Caprilli teams also performed well to finish in sixth and eighth place.

UCD Soccer take Premier Division Fair Play award

UCD have claimed first place in the 2005 Eircom League Premier Division Fair Play table with a total of 1,072 points. As well as prize money, the students could also be in line for a place in next season's UEFA Cup by way of the Fair Play draw, which gives three clubs entry to the competition each year.

Cork City and Derry City, whose fight for the Premier Division title went down to the wire in a last-day decider at Turner's Cross, couldn't be separated in the Fair Play stakes, tying on 1,070 points and equally sharing the second-place prize money.

In the First Division, Dundalk claimed top spot with a tally of 1,153 points, just three points ahead of Limerick, who finished on 1,150 points.

Congratulating the clubs, Eircom League Chairman Paddy McCaul said: "Fair Play is a cornerstone of football the world over, and as well as the rewards on offer to Eircom League clubs in terms of prize money, it's great to see UCD - who had such a successful season, including their run to the Eircom League Cup Final - in with a chance of a place in the UEFA Cup."

Diarmuid McNally and Pete Mahon (UCD Soccer Club) with the Eircom League Fair Play Award 2005



Harding Cup

The UCD Soccer Freshers team has retained the Harding Cup, the top accolade for Freshers Intersvarsity soccer. The competition was hosted by UCC and the final was held in the Mardyke Arena in Cork city.

UCD beat UL 3-1 in the quarter final, with John Brophy scoring two goals and Francis Moran scoring one. UCD then progressed to the semi-final to play Queens. This turned out to be a marathon of a game. The score at full-time was 2-2, with Francis Moran scoring both of UCD's goals. As the game went into extra time, the teams remained level, but UCD were the eventual winners, scoring 8-7 on penalties.

The final was to be yet another marathon encounter for UCD. They met NUIG, who had a relatively comfortable win over Trinity in the semi-final, and thus would be slightly fresher for the final. UCD fought hard throughout the game and at full time, faced another match going into extra time. They kept the focus sharp and scored in extra time. The eventual result was UCD 1-NUIG 0, with Marc Whelan scoring the goal for UCD. This is the second year in a row UCD has won the Harding Cup. The victorious Freshers team is an excellent stepping stone for those players who wish to progress to senior football, and possibly the Eircom League, in years to come.

Fourth league win in a row for UCD Rugby Under-20s

UCD has been crowned the Leinster Under-20s Rugby League Champion for the 2005/06 season, beating Seapoint 47-7 in February – this is their fourth league win in a row. The win against Seapoint gave UCD a bonus point, thereby gaining them the League title, with Trinity coming a close second.

Rugby at Under-20s level has been very strong in UCD over the years. This strength is down to the correct structures being in place to develop players coming from second level who want to progress their rugby careers. A Rugby Academy was set up and a Director of Rugby was appointed in the '90s, and UCD Rugby has never looked back. The senior team has also benefited from these structures being in place; it is currently in the top half in the AIB League Division One.

UCD Under-20s have played 42 games in the last four years in the Leinster League; they have only lost two of these. The strength in the squads can also be seen by the fact that many of the players have been selected to various inter-provincial and national squads since the introduction of the UCD Rugby Academy. Numerous players have been members of the Leinster Development Squad, Leinster Senior Squad, Irish Under-19s Squad and Irish Under-21s Squad.

The following players are those that have successfully progressed from Under-20s level to senior level at UCD in the last four years:

2002/03

Niall Kearns, Michael Fanning, John Anthony Lee, Conor Geoghan, Kevin Croke (current Senior Captain), Keith Doyle, Ken Kennedy, Ross McCarron

2003/04

Stephen Grissing, Kevin McLaughlin

2004/05

Cillian Willis, Killian Lett, Morgan Hickey-Crowe, Robert Kearney

2005/06 UCD Under-20s Squad

David Nyhan (Captain), Kevin Quinlan, Killian Lett, Peter Burke, Cian Aherne, Ian Keatley, Brian O'Neill, Richard Sweeney, David Gilchrist, Brian McGovern, Conor O'Keeffe, Conor McNerney, Ray O'Hara, Andrew Brennan, Kevin Sheahan, Gerard Moran, Gavin Telford, Gerard O'Rourke, Conor Byrne, Matthew De Vere White, Conor Quinn, Mark Buckley, Hamie Hagan, Fergus McFadden, Sean O'Brien.



David Nyhan (Team Captain)



The diaries of Mary Hayden

Dublin woman Mary Hayden (1862-1942) was a scholar, historian, university professor, activist in issues of language, literature, politics and women's rights. A friend of Yeats, Pearse and the Joyce family, her personal diaries have now been published for the first time. Educated first at Alexandra College, Dublin, taking a scholarship in Modern Languages, Mary received

her Royal University BA in 1885; her MA in 1887; Junior Fellowship in English and History, 1895; and D Litt (Hon) in 1935.

On foundation of the National University of Ireland, 1909, Mary was appointed a member of the Senate (the only woman member) and remained a member until 1924. She was

Professor of Modern Irish History at UCD from 1911 to 1938 and was also for many years a member of the executive of the Gaelic League.

Mary Hayden's diaries are published in five volumes by Morrigan New Century, an imprint of Morrigan Books. Contact: morriganbooks@online.ie

Desert island books: a revival of Flann O'Brien

According to Flann O'Brien, his works have been bombed, banned and blown across the Irish landscape. But now that O'Brien's work, 40 years after his death, has been vanquished to a desert island, the author is enjoying a bit of a comeback.

O'Brien's novel *The Third Policeman* (1967) was briefly featured on the enigmatic television show *Lost*. Stranded on an island, the assorted survivors must figure out the forces that brought them all together. Writers of the show have hinted that O'Brien's novel was featured for a reason, and fans have bought thousands of copies in an effort to ferret out clues.

The Third Policeman is a puzzling novel about what we know and what we don't. The nameless narrator murders a man for money to finish his treatise on the works of the idiot savant, de Selby. He travels through a vague, timeless landscape to a police barracks like no

other. There he encounters extraordinary characters and ideas, including a sergeant convinced that too much bicycle riding will intermingle the atoms, and the personalities, of the rider with the bicycle: "It is not the first time I have noticed crumbs at the front wheels of some of these gentlemen," Sergeant Pluck remarks.

Despite O'Brien's genius, his novels received little attention outside of Ireland during his lifetime. One reason for the failure of *At Swim-Two-Birds* to draw higher sales on its first release was the outbreak of World War II. O'Brien reasoned that Hitler must have hated the book and started the war to keep it from selling.

When *The Third Policeman* was rejected by publishers, O'Brien locked the manuscript away, telling friends that it was forever lost when it blew out of the boot of his car on a ride

through the country. Instead, O'Brien focused much of his creative effort on his work as the columnist Myles na gCopaleen for *The Irish Times*. His career as a columnist had its beginnings when, as a UCD student, he wrote under the pseudonym Brother Barnabas in the student magazine *Comhthrom Féinne*. O'Brien, whose real name was Brian O'Nolan, used pseudonyms when publishing due to his job in the civil service.

In the guises he adopted for his columns, O'Brien was at once swashbuckling, irascible, ingenious, hilarious and ruthless. He delighted in the ability a fictional character gave him to transcend the limits of chronological time, fixed personality and daily life. But it is exactly when he turns his attention to the daily life of Ireland that Myles na gCopaleen was at his funniest. He was always happy to lampoon both the plain people and the supposedly superior. O'Brien's ability to appreciate, and then mock,

the ways in which his fellow countrymen took themselves seriously is a theme that runs throughout his work.

He would no doubt have had something to say about an academic conference being held at UCD on the 40th anniversary of his death.

Jennika Pierie, who wrote this article, is a UCD PhD student researching Flann O'Brien and notions of the absurd.

UCD School of English is hosting a conference to commemorate the 40th anniversary of the death of Flann O'Brien (1911 – 1966) on 1 April.

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Choral Scholars' Spring Concert

The UCD Choral Scholars are holding a Spring Concert at 8pm on Thursday, 13 April, in St Ann's Church, Dawson Street, Dublin 2. They will be performing Mozart's *Mass in C Major K317 'Coronation'* and Fauré's *Requiem in D, Op. 48*. Conducted by Desmond Earley, the performers will include Geraldine Meade (Soprano), Martha Bredin (Alto), Jeremy Morgan (Tenor) and Simon Morgan (Baritone). Tickets are €20 (€10 for students) and can be obtained by phoning 01 716 7890/086 215 0461 or emailing choralscholars@ucd.ie.



Correction:

Readers of UCD Today pointed out that Professor Brigid Laffan was not the first non-UCD person in the politics department as stated in the article on page 8 of the January edition. Apologies for this error to those who blazed the trail before her.