Contact

UNIVERSITY OF DUNDEE

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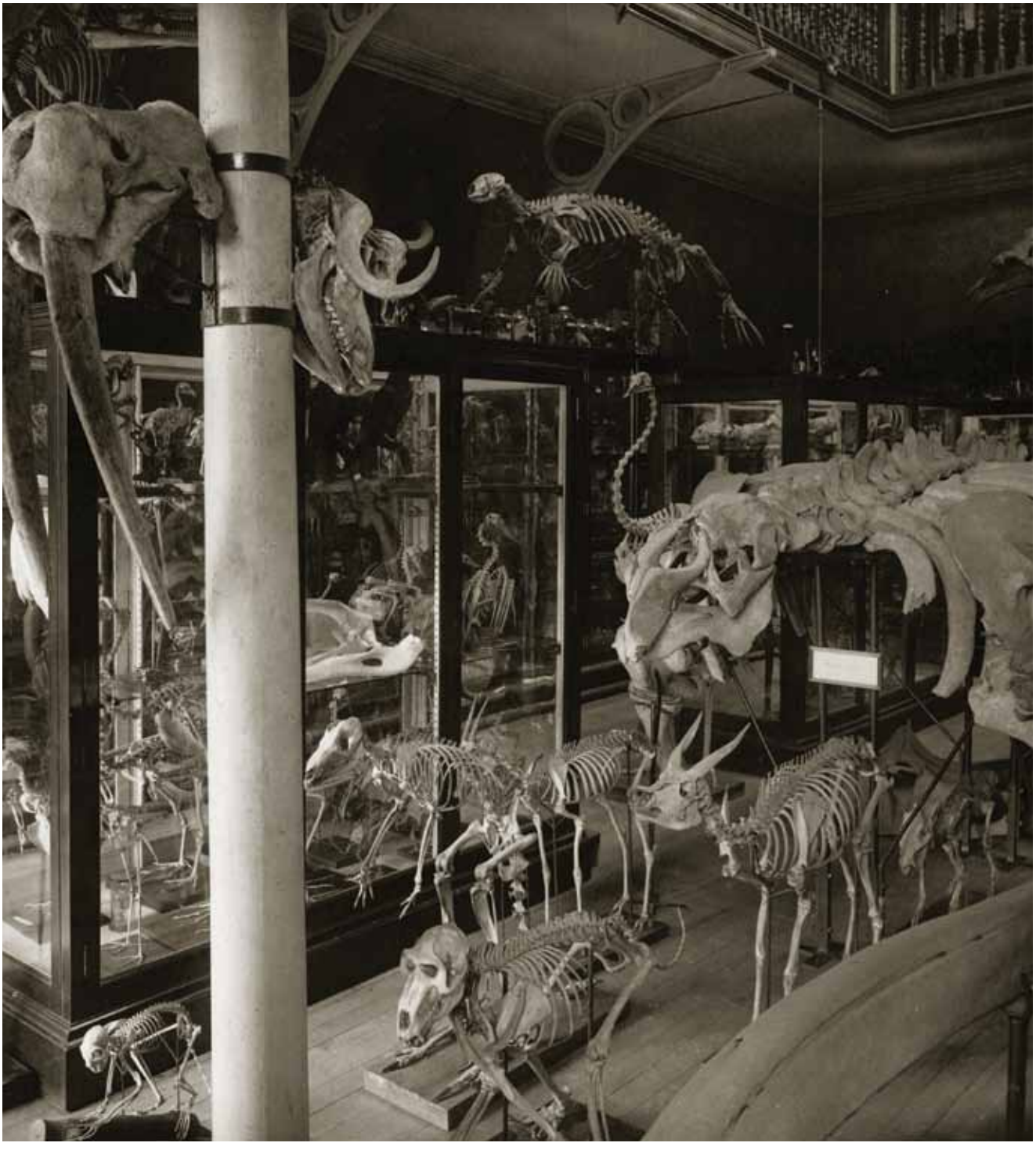

Celebrating a legend

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from the principal...

Senior staff of the University were recently treated to a presentation from Dundee City Council on the changes being made to the city as part of the Waterfront Project, which now includes, of course, the V&A at Dundee. We saw impressive animations of how the city will look once the project is finished: with streets sweeping down to the waterfront, bringing people closer to the river and re-invigorating the city's relationship with its natural setting and most obvious asset.

This all reminded me of the University's place within the City of Dundee. Partnership, collaboration and a shared understanding of each others' role in the improving economy of the region have helped to cement the relationship between town and gown. The University's founders would be pleased to see the central role the University plays in the life of Dundee, but also the wealth of opportunities that a vibrant University community can bring.

But a University with a global perspective and an international reputation does more than that. It can act as a window on the world, attracting top international researchers, students, industrial partners and stakeholders to work and study in Dundee, and they in turn spread their experiences of the city around the globe. When we make our top international signings, the new players add to the prestige and external recognition of the club as well as the home crowd. In this way our drive for excellence and determination to bring the key players to Dundee can transform the perception of the city in the global context and becomes a focus of civic pride.

Developments such as the Waterfront Project are crucially important in enhancing the external view of Dundee and thereby helping us to attract, recruit and retain the best students and staff. As well as bringing the world to Dundee, the University brings Dundee to the world by opening up a world of opportunity for its students, many of whom are recruited locally, as well as for our business and cultural partners in and around the city. And in turn our civic partners benefit from access to new concepts and ideas to help shape their vision for the city. It would be going too far to say this is a symbiotic relationship, but the future of the University is inextricably linked to that of the city, and if we are to be successful, both partners need to exploit the relationship to best effect.

There are many examples of how this relationship has already provided and continues to provide significant returns for the city and region: the engagement of colleagues in art & design with the creative industries, including the V&A at Dundee project; the effects of the University's cutting-edge biomedical research on the local economy through spin-outs and start-ups; the real potential for a local hub in offshore renewables in partnership with colleagues in the College of Art, Science & Engineering; and the enrichment of the local cultural scene through activities such as the Literary Festival and the Saturday Evening Lecture Series.

We all need to recognise the University's place in the development of the city and how what we do can affect for the better the external perception of Dundee. It is therefore timely perhaps that our new Director of External Relations, Judith Barnard, will shortly be taking up her post. I am sure you will all join me in welcoming her to the University and to Dundee.

Professor Peter Downes • Principal and Vice-Chancellor

Sleeping sickness drug breakthrough by DDU

Scientists from the University's Drug Discovery Unit (DDU) have made a major breakthrough in identifying new treatments for a fatal disease which infects tens of thousands of Africans each year.

Their findings, published in the latest edition of the journal *Nature*, describe a new approach to tackling the fatal parasitic disease human African trypanosomiasis (HAT), commonly known as sleeping sickness due to disturbance of the sleep cycle caused by parasites infecting the brain.

The breakthrough made at Dundee shows promise for the development of effective, orally administered, low toxicity drugs to treat the disease.

"This is one of the most significant findings made in recent years in terms of drug discovery and development for neglected diseases," said Professor Paul Wyatt, Director of the Drug Discovery for Tropical Diseases programme at Dundee.

"We now have a valid drug target for HAT and have found leads for drugs which can be dosed orally. These two findings represent significant strides in the development of a full blown drug against sleeping sickness suitable for clinical trials."

It is estimated that drugs may be ready for human clinical trials in around 18 months.

The World Health Organisation estimates around 50,000-70,000 people in sub-Saharan Africa are infected with the disease, which is spread by the bite of a tsetse fly.

The disease has two stages, the second of which is particularly difficult to treat in poverty-stricken rural areas, where many victims live. Of the two drugs currently available, one - an arsenic-based drug - has fatal side effects in around one in 20 patients, and the other, eflornithine, is costly, requires prolonged hospital treatment and is not effective against all forms of the disease. Increasing reports of treatment failures with these drugs is causing concern that soon there may be no effective treatment for this fatal disease.

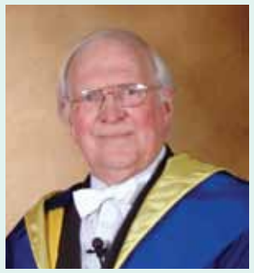
"The process of developing drugs consists of a number of hurdles which have to be passed," said Professor Wyatt. "The first is identifying an Achilles heel of the parasite, such as an enzyme which is essential for the survival of the parasites, known as a drug target.

"The second is to confirm that molecules can disrupt these targets and so kill the parasite, a process called "target validation". The next is "lead optimization" to develop these early molecules into candidate drugs for clinical trials. That is where we are now. The final hurdle is to show safety and efficacy of the new drug in patients."

The Dundee team worked with partners from the University of York and the Structural Genomics Consortium during the course of the research.

Sir James Black

Sir James Black, Chancellor of the University from 1992 to 2006 and a Nobel Laureate, died on 21 March at the age of 85.



His invention of the beta blocker drug propranolol is considered one of the major breakthroughs in pharmacology in the 20th century and ultimately led to hundreds of thousands of lives being saved among patients suffering from heart disease. He also made hugely significant discoveries in the development of drugs to treat heartburn and ulcers.

An alumnus of the University, Sir James' contribution to science was recognised at the highest level in 1988 when he was awarded (jointly) the Nobel Prize for Physiology or Medicine.

In 2000 he was awarded the Order of Merit by The Queen and in 2005 he was named the first recipient in the University's history of an Honorary Degree of Doctor of Science.

In 2006 the University opened the Sir James Black Centre, a building which is home to hundreds of scientists carrying out interdisciplinary research in the College of Life Sciences.

Paying tribute to Sir James, University Principal and Vice-Chancellor Professor Pete Downes said, "During his time as Chancellor he served the University with commitment, wisdom, grace and distinction. He was a great scientist, who took a keen interest in the development of our research here at Dundee, but he was also a great man to know.

"He inspired so many people from students to senior academics and industrialists, right up until the last few months of his life. I am personally proud and immensely fortunate to have known him for many years."

New research links deprivation and p53

Researchers from the School of Medicine have established a link between deprivation and the p53 gene that explains why women from poorer backgrounds are less likely to survive breast cancer.

In a paper published by the *British Journal of Cancer*, the Dundee team identified – for the first time – that p53 mutation in breast cancer is associated with socio-economic deprivation, and that this helps account for the poorer prognosis for women from deprived communities.

The reasons for survival rates differing between breast cancer sufferers from poorer areas and from more affluent areas – the deprivation gap – has never been fully understood.

Dr Lee Baker, of the Department of Surgery and Molecular Oncology, suggested examining the p53 gene as a candidate molecular marker that might account for these biological differences.

What the team found was that women from deprived backgrounds were more likely to experience a mutation of p53, and that this linked to higher relapse and mortality rates.

"There are two ways that p53 mutations can come about," explained Dr Baker. "One is as a result of genetic predisposition, and the other is as a result of lifestyle. Smoking, drinking, poor diet etc can lead to p53 mutations and are more common in women from lower socio-economic groups, who are also more likely to experience a recurrence of the disease and to die as a result of breast cancer.

"This research makes a strong link between p53 and deprivation, and then between p53 mutation and recurrence and death. As a social issue, it shows that if we lift people up the deprivation scale then they will be less likely to have problems with their p53 gene, and go on to develop breast cancer.

"In terms of science, it shows that successfully creating a treatment for p53 mutation will go a long way down the road to finding a cure for this form of breast cancer. Deprivation alone doesn't cause breast cancer, but can affect prognosis when p53 is damaged as a result of lifestyle choices commonly associated with deprivation."

p53 is a tumour suppressor protein that is involved in preventing cancer. In healthy humans, the p53 protein is continually produced and degraded in the cell but if the gene becomes damaged, or mutates, then tumour suppression is severely reduced.

The survey looked at a total of 246 women who underwent treatment for breast cancer between 1997 and 2001. Examining frozen tissue, tests were carried out to determine p53 mutation status. Using the patients' postcodes, a deprivation score was attributed to each, and examined against the outcome (full recovery, relapse, death etc).

What the team found was that patients in the lowest socio-economic group were significantly more likely to have a relapse and die compared to those in more affluent categories. They also demonstrated that the worse survival and shorter disease-free interval in breast cancer for the most deprived patients is associated with tumour p53 mutation.

RSE honours for Dundee academics

Four professors from the University have been elected as Fellows of The Royal Society of Edinburgh.

The latest Fellows to be elected are Professor Geoffrey Codd, Professor of Microbiology, Professor Will Maclean MBE, Emeritus Professor of Visual Art, Professor Allan Struthers, Professor of Cardiovascular Medicine and Professor Daan van Aalten, Professor of Biological Chemistry.

Professors Codd and van Aalten are based within the University's College of Life Sciences while Professor Struthers is based at the School of Medicine. Professor Maclean holds an Emeritus position within Duncan of Jordanstone College of Art and Design.

Each new Fellow of the RSE is recognised within his or her peer group as having achieved excellence within their discipline or profession.

Professor Peter Downes, Principal of the University, congratulated the new Fellows, saying, "It is perhaps no surprise that this year's crop of new RSE Fellows come from three of the University's strongest areas - Life Sciences, Medical Sciences and Art and Design - emphasising the breadth of expertise that exists here.

"It is always a pleasure to see our staff recognised for their contributions to the life and work of the University. These most recent awards further enhance our reputation as one of Scotland's leading academic institutions."

The four from Dundee join the RSE's 1500-strong Fellowship of experts in the Sciences, Arts, Humanities, the Professions, Industry and Commerce. The new Fellows were elected after a rigorous four-stage selection process culminating in a ballot of the entire Fellowship.

Once admitted to the RSE, Fellows are encouraged to contribute to the aims and objectives of the Society, including the provision of expert policy advice to Government and Parliament, outreach education programmes for young people, and public engagement events including conferences and discussion forums. The central aim of the Society is the advancement of learning and useful knowledge.

SCILLS bring US investment to Dundee

American biotechnology company Stemgent, Inc has set up a new company in Dundee to produce biological products and services generated by the SCottish Institute for ceLL Signalling (SCILLS) at the University.

As part of the agreement to form Ubiquigent, Stemgent will invest approximately £3million in the new venture over the next three years.

The announcement was welcomed by Minister for Skills and Lifelong Learning Keith Brown.

"This is an excellent investment for Dundee and for Scotland's life sciences sector," he said. "Our pioneering research and technology is globally renowned. We have a clear academic lead in this field. The world class talent, skills and technology within the SCILLS unit at the University of Dundee is undoubtedly a huge factor in this move."

SCILLS is the world's first research unit dedicated to the study of protein ubiquitylation, a process which regulates almost all aspects of cell life. Abnormalities in this process are a cause of cancer as well as chronic inflammatory and autoimmune diseases.

SCILLS director Sir Philip Cohen said, "The initial aim of SCILLS has been to build up a critical mass of leading scientists researching the ubiquitin system. The longer term aim is to attract new biotechnology companies to Scotland and to facilitate the development of improved drugs to treat diseases that target components of the ubiquitin system.

"It is therefore extremely exciting and most gratifying that Ubiquigent Ltd has been formed just one year after the launch of SCILLS, several years earlier than the predictions I made in my business plan!"

The formation of Ubiquigent renews Sir Philip's acquaintance with Stemgent and Ubiquigent's chief executive officer Ian Ratcliffe, who previously played a key role in helping establish the European division of Upstate in Dundee in 1999, a company that markets proteins and other services needed for the study of protein phosphorylation to the academic community and pharmaceutical industry.

Working with the Protein Ubiquitylation Unit of SCILLS, Ubiquigent will develop high performance, application tested reagents that can help the scientific community make discoveries that will eventually lead to useful and valuable new drugs.

CF research uncovers health care gap

Pan-European research led by the University's Centre for Cardiovascular and Lung Biology has led to an impassioned plea to close a healthcare gap amounting to a 'death sentence' for Cystic Fibrosis (CF) children born in Eastern Europe.

Dr Anil Mehta, Reader in Molecular Medicine in the University's Medical School led a team from 35 countries that examined outcomes for almost 30,000 CF sufferers and compared those born in long-standing European Union member states with those born in countries who joined after expansion in 2003.

The resulting paper, published in *The Lancet*, showed that despite similar population sizes and underlying gene frequencies for CF, the numbers of CF-affected children were lower in post-expansion EU member states.

Dr Mehta says this disparity can most likely be explained by the tragic fact that a lack of healthcare facilities in new member states means the majority of children born with CF in these countries will die in very early childhood, a situation not encountered in the wealthier EU countries for many decades.

"We know that this disease occurs randomly in about 1 in 4,000 children born to healthy parents across the EU,'" he said. "Despite this, the team encountered many fewer people with CF in poorer countries. CF patients there die far younger than in long standing EU countries.

"We have to act to redress this imbalance if we are serious about ensuring the equality of healthcare for all EU citizens," continued Dr Mehta. "We need our politicians to act to end this death sentence for CF sufferers in the newer EU states."

The findings were welcomed by Birgit Dembski, Secretary of Cystic Fibrosis Europe, an organisation that campaigns for equal access to care for CF patients.

"This study illustrates the daily experience of CF-affected families in Eastern European countries - care is underdeveloped and insufficient,'" she said. "It makes me feel helplessly angry to know that the place where you were born determines whether you have a chance to live or not. To be born in certain countries is still a sentence for premature death."

The study was completed in conjunction with Professor Milan Macek of Charles University, Prague, with support from the European CF Society through experts from universities in Denmark and Italy. The work was funded by the European Commission Sixth Framework programme as part of the EuroCareCF Coordination Action for Cystic Fibrosis led by Dr David Sheppard of the University of Bristol.

Cystic Fibrosis is a common hereditary disease which affects the entire body, causing progressive disability and often leading to early death. It is caused by a mutation in the cystic fibrosis transmembrane conductance regulator (CFTR) gene, which helps create sweat, digestive juices and mucus. Countries in Western Europe have committed significant resources to making the necessary treatment available to CF sufferers, helping them to live longer and fuller lives.

Novartis hat-trick for Life Sciences

Angus Lamond, Wellcome Trust Principal Research Fellow and Professor of Biochemistry within the College of Life Sciences has been awarded the 2011 Novartis Medal and Prize.

The award, presented by the Biochemical Society, is one of the UK's most prestigious prizes in the field of biochemistry. It recognises Professor Lamond's seminal work on the structure and functional organisation of the nucleus of mammalian cells.

The Novartis Medal and Prize is awarded annually in recognition of contributions to the development of any branch of biochemistry. Scientists from the College of Life Sciences have now won the esteemed prize two years in succession - Professor Grahame Hardie received the 2010 Novartis Medal and Prize.

Professor Lamond's award brings the number of winners currently working within the University to three - Professor Sir Philip Cohen was a recipient in 1992.

Professor Lamond said he was delighted to receive the Novartis Medal and Prize and follow in the footsteps of such esteemed scientists.

"It was a genuine surprise to hear I had been awarded the Novartis Medal and Prize," he said. "It's always nice to get the recognition of your peers and hear that the finest scientists in this country value your work.

"It's fantastic that Dundee has now won this very distinguished award two years in a row and such honours are testimony to the fantastic facilities and resources that now exist at Dundee.

"This award reflects the hard work of a lot of people who have helped to build up the research community and profile of the University over many years.

"With all of the high quality research underway here, I am confident that it won't be long before further awards are made to researchers from Dundee."

Professor Lamond will receive the Novartis Medal and a prize of £2000. He will present the Medal Lecture at a Biochemical Society conference in 2011, and the lecture will be published in the Biochemical Society Transactions Journal.

Racing to Raise Money for Diabetes

Runners of all abilities have been quick off the mark to sign up for the University's third annual Monikie 10k Race for Diabetes Research this year.

Entries for the race on Sunday 9 May began arriving within hours of registration opening and by the end of March two thirds of the 300 places available had already been filled.

The race is being run in aid of the University's Diabetes Research Campaign which aims to raise £3million towards state of the art research and patient care facilities across Angus, Dundee and Perth & Kinross, adding to the world-class diabetes research programmes which are already well-established through the University and NHS Tayside.

The campaign has already raised more than £2million but work is still needed to enable the University to create a Type 1 diabetes research team of the same standards as the internationally recognised expertise Dundee has in Type 2 diabetes, the ultimate goal of the campaign.

Over the past two years, the Monikie 10km race has raised thousands of pounds for the charity.

However, Andrew Morris, Professor of Diabetic Medicine at the University, said the campaign was also aimed at increasing awareness of the dangers diabetes poses.

"We are delighted and extremely grateful to the organisers of the race for choosing to benefit the Diabetes Research Campaign again," he said. "A race like this is a great way not just to raise funds but also to raise awareness of diabetes and what can be done to prevent it. Regular exercise, for instance, has a very positive effect in reducing the risk of diabetes.

"We have had great backing from the public already throughout this campaign, which will bring real benefits to people all around Tayside, and we look forward to seeing many of them at the Monikie 10k."

On the starting line this year will be a number of staff members including Professor Dario Alessi, Director of the Dundee Diabetes Research Centre and University Principal Professor Pete Downes.

Professor Downes has both a personal and professional interest in the campaign."My concerns about diabetes are very real and tangible because people who are dear to me suffer from this insidious disease," he said.

"My brother was diagnosed quite recently with type II diabetes and the son of a long-standing close friend has type I or juvenile onset diabetes. As a student, long ago, I spent two uplifting weeks supervising children with type I diabetes as they learned to manage the disease away from the protective gage of their parents through a scheme sponsored by the British Diabetes Association.

"I am therefore very proud to support the University of Dundee's Diabetes Research Campaign which has already raised £2 million thanks to the generosity of the Tayside Community. We need to raise a further £1 million to reach our goal of supporting world class research and patient care facilities in the region.

"The Monikie 10K is the perfect fundraising event because it promotes the kind of healthy lifestyle known to reduce the risk of developing type II diabetes. I will be putting my money where my mouth is by running in the event for the second time. If you can't make it yourself, please make sure you generously sponsor one of the runners."

The race will take place at 11am on Sunday 9 May on a flat course in the idyllic setting of Monikie Country Park on the outskirts of Dundee. Entry is £11.

For more event information and how to enter the race as well as support the campaign, visit:
www.dundee.ac.uk/externalrelations/funds/drc/help/

Get 10k Fit with ise

The exercise experts at **ise** have put together a six week training programme aimed at helping novice runners complete the 10k race. A six week programme for walkers is also available. For more information visit the ise website at:
www.dundee.ac.uk/ise/fun/whatwedo/running.php

Global interest in V&A at Dundee project

A design competition for the V&A at Dundee project, which aims to develop a new centre of 21st century design for Scotland and the world at the heart of Dundee's waterfront, has attracted a "phenomenal" response from around the world.

More than 120 architect and design teams have registered their official interest in the project following the launch of the design competition earlier in the year.

The V&A at Dundee is being delivered by the Victoria and Albert Museum, the University of Dundee, the University of Abertay Dundee, Dundee City Council and Scottish Enterprise.

Mike Galloway, Director of City Development for Dundee City Council said it was "fantastic to see the level of ambition the project is creating."

"The reaction to the design competition has been phenomenal," he said. "We are confident that we have a project here that is immensely appealing to the architecture and design community and that has been confirmed by the number and the quality of the submissions we have received.

"There are some very prominent names among those who have entered but we also have lots of emerging talent."

The V&A at Dundee is looking to create a landmark building, which will sit just to the south of Craig Harbour on a site to be created out into the River Tay. The site is being made available through the Dundee Central Waterfront Partnership, the joint venture between Dundee City Council and Scottish Enterprise which is revitalising the prime area of land linking the city centre with the River Tay.

Designers were invited to make proposals for a building that reflects the V&A at Dundee project partnership's desire to stimulate commerce as well as local and visitor interest.

Entries are being examined by a panel of judges who will draw up a shortlist of five or six design teams. They will each be asked to produce design concepts and models which will go on public view before a winner is announced in the summer.

It is planned that the V&A at Dundee will open in 2014.

New clinical research one stop shop

The Tayside Academic Health Sciences Centre, a new collaborative venture aimed at boosting clinical research activity, has been launched by the University and NHS Tayside.

Professor Jill Belch, Research and Development Director of TAHSC, said the new collaboration would offer a 'one-stop shop' providing the infrastructure support required for high quality clinical research, which focuses on the development of new treatments for disease.

"What TAHSC will do is make the sum of what we have here in Tayside ultimately greater than the individuals parts," said Professor Belch. "So many major clinical trials now demand different disciplines and components. We can combine much of that expertise and offer a more attractive package for carrying out this kind of vitally important research."

Professor John Connell, Director of TAHSC and Dean of the University's School of Medicine said the centre would build on an already strong and mutually beneficial relationship shared by the University and the NHS Tayside.

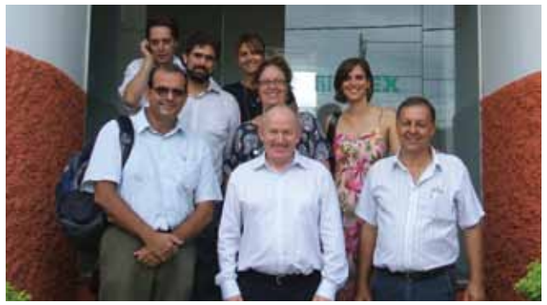
"The launch of the Centre will see both institutions working together across the field of clinical research to maximise the potential of the excellent staff and facilities we have here," he said.

"This will complement other new initiatives, such as the recently launched Dundee Cancer Centre, that will help us make real progress in advancing human health."

Chief Executive of NHS Tayside, Professor Tony Wells, added, "We very much welcome the launch of this new collaboration, which will allow us to build on the excellent working relationship we have with the University of Dundee.

"This will benefit our patients through research findings and innovation, as well as the professional development of our staff."

Capacity Building of Water Leaders in Brazil



The University's UNESCO Centre for Water Law, Policy and Science will be playing a leading role in Brazil's efforts to develop a community of water leaders following a visit to the South American country by Ian Ball, Dean of the Graduate School of Natural Resources Law, Policy and Management.

During his trip Mr Ball met with Brazilian Government Depute Ministers and senior officials of HIDROEX – the Institute for Excellence in Water in South America and African Portuguese Speaking Countries.

As a result key staff from Brazil will be attending the Water Law Water Leaders Summer Programme and the International Water Law Symposium in June in Dundee while UNESCO Centre academic staff will be teaching in Brazil in November.

Brazil has the highest biodiversity in the world, 12% of fresh water around the world, and the world's largest water basin, and contains the sources of water which spreads through Peru, Bolivia, Colombia, Ecuador, Venezuela, Suriname and Guyana. In the eyes of UNESCO, the Prata basin classifies as one of the world's seven priorities in the projects 'Waters for Peace' and 'Waters for Life'.

World water day celebrated online

The UNESCO Centre for Water Law, Policy and Science celebrated World Water Day on 22 March with an interactive online conference showcasing global water issues and the multidisciplinary work of the centre.

Broadcast live via the internet through audiovisual and a real-time transcript of proceedings, the event looked at the work of the UNESCO centre in the Tweed valley and the interface between land use and water management. Comparisons were made with other UK river valleys in particular the Dee and the Thames

The international focus of this year's World Water Day was on water quality which was addressed in the conference.

For more information visit:
www.be2camp.com/page/world-water-day-workshop

Remote working for new professor

A newly appointed professor at Duncan of Jordanstone College of Art and Design takes up his post this month almost 8000 miles away from his colleagues on the University campus.

Professor Tony Martin, one of the world's most foremost experts in the field of marine mammals, will be seconded to the South Georgia Heritage Trust (SGHT) to oversee a multi-million project aimed at aiding the recovery of native wildlife.

The secondment means he will spend the next four years based on the South Atlantic island, 7,880 miles away from Dundee.

Although at first glance, the recruitment of an eminent biologist may appear to be an incongruous appointment for an art college Professor Elaine Shemilt, artistic director of the University's Centre for Remote Environments and trustee of the SGHT believes it highlights the collaborative work into conservation and habitat restoration being carried out in Dundee.

"This is a measure of the sort of collaborative research we do here," she said. "We are all artists and designers but we work with a huge spectrum of people from different specialities.

"A lot of artists are passionate about environmental management and sustainability. Artists deal with topical issues all the time and habitat restoration is extremely topical at the moment

"Tony Martin has been carrying out research into Antarctic regions for nearly 10 years, and South Georgia in particular. This is the most important island for wildlife and birdlife in the world, and it is vital to restore it to its previous status. To do this, we needed somebody, a scientist, with a huge knowledge of South Georgia and we really have got the best man for the job."

Professor Martin joins the University after a long period with the Natural Environment Research Council in Cambridge. He spent many years as a cetacean biologist with the Sea Mammal Research Unit, before transferring to the British Antarctic Survey in a broader role, leading investigations of the Southern Ocean foodweb.

He is one of the world's leading experts in whale and dolphin behaviour, and has carried out marine mammal research from the Arctic to the tropics.

His appointment has been funded by Swedish industrialist Frederik Paulsen, a Trustee of the SGHT, through his company Ferrings Pharmaceuticals.

Dundee scientists top science "pop charts"

Sir Philip Cohen has been named as the world's most quoted biochemist over the past 10 years in a survey that also identifies his colleague Professor Dario Alessi as among the top 20 in the field globally.

Research papers published by Sir Philip, Director of the Medical Research Council Protein Phosphorylation Unit and of the SCottish Institute for ceLL Signalling (SCILLS), were mentioned (cited) 10,378 times over the past decade by other scientists in their research publications.

The survey is based on data provided by Thomson Reuters from its *Essential Science Indicators* between January 1st 1999 and October 31st 2009.

Commenting on the survey, Sir Philip said, "I first entered these scientific 'pop charts' many years ago when I was named as the 126th most quoted scientist for papers published between the years of 1973 and 1984.

"It is gratifying to see that, so many years later, other biochemists around the world are still enjoying reading my papers and that they find them sufficiently important to be worth mentioning in their own publications."

The survey listed the top 20 biochemists in the world in terms of citations per published paper. Arranged in this way, Sir Philip ranked 18th in the world, while his colleague Professor Alessi, the Deputy Director of the MRC Protein Phosphorylation Unit, was two places above him at 16th.

Professor Alessi was cited 78.04 times per paper (68 papers, 5,307 citations) during the period, while Sir Philip was cited 75.20 times per paper (138 papers, 10,378 citations).

There were two other UK-based scientists listed in the top 20, Professor Chris Dobson of University of Cambridge and Dr Rolf Apweiler of the European Bioinformatics Institute, Cambridge. Eleven biochemists from the USA, two from Japan, two from Germany and one from Switzerland were the other nationalities represented in the top 20.

Citations are regarded as one of the most important measures of excellence in basic research because they indicate the extent to which other scientists recognise its quality and use it in their own research.

Marking end of BDA presidency

Dr John Drummond, Senior Lecturer and Honorary Consultant in Restorative Dentistry at the Dental School, will mark the end of his year as President of the British Dental Association in May when he gives his valedictory address to the British Dental Conferences Annual Meeting.

During his Presidential year he has represented the association at events throughout the UK and abroad.

"I was very honoured to be selected as President particularly as the office is relatively infrequently held by an academic dentist," he said.

"I feel it reflects the high standing of Dundee Dental School. I am grateful to my colleagues in the Prosthetics department who have covered some of my teaching commitments when I have been representing the Profession on a national basis."

The BDA was founded in 1880 and represents 25,000 dentists in all branches of dentistry.

Islamic Accounting

A new Masters course in Islamic Accountancy and Finance begins in September, inspired by the rapid global expansion of interest in Islamic banking in recent years.

The growth of the sector, which differs from conventional banking in its efforts to adhere to Sharia law including the need to avoid interest, has resulted in a significant skills shortage.

Staff within the School of Accountancy & Finance are hoping their new 12 month MSc will help address the need for highly trained staff with knowledge of Islamic accounting and finance practices.

Course director Dr Rania Kamla explained the course will offer students a unique experience.

"There are a number of universities in the UK offering courses in Islamic finance but they tend to concentrate on banking and economics," she said.

"What makes Dundee quite unique is the emphasis on accounting as well. Islamic finance is the fastest growing financial phenomenon in the world over the last 20 years. There are now 300 institutions worldwide that provide Islamic banking. These organisations have people who offer advice in terms of whether practices and products are in accordance with Sharia law but they don't always have accounting knowledge or experience.

"Not many people have that combination of accounting and financial knowledge and how it relates to Islamic law so we're hoping to bridge that gap."

Dr Kamla added that the programme aims to provide a theoretical and practical knowledge of Islamic finance and how it is informed by Islamic law.

"The course will include an introductory element to the main issues, the most popular products and how they relate to Sharia law, how they compare to other banks and the practice of Islamic banks. It also includes a dissertation where students will be able to develop a deeper knowledge of an aspect of Islamic finance and accounting.

"There is a focus on ethical and social justice in Islamic finance and it has been viewed as an ethical alternative to traditional banking particularly since the crisis in conventional banking but there are challenges facing Islamic banking and the course will be looking at these too."

For more information on the new course visit:
www.dundee.ac.uk/accountancy/prospstuds/postgraduate/isacc.htm

Nursing project helps extend care for Latvian children

The future care of terminally ill children in the Baltic republic of Latvia could be transformed, thanks, in part, to a pioneering system of distance learning developed within the University's School of Nursing and Midwifery.

Staff from the school have been working with the Latvian Children's Palliative Care Society (CPCS) to deliver flexible distance learning units to nurses, doctors, physiotherapists, nutritionists and social workers as part of a nine-month collaborative project aimed at improving the availability of palliative care services throughout the country.

At the moment a shortage of skilled staff and resources means only families living in the capital Riga can access palliative care services leaving families living elsewhere to cope alone with the demands of caring for a terminally ill child.

> "Palliative care is aimed at providing support and making life as comfortable, as meaningful and as fulfilling as possible."

"The need for developing palliative care services in Latvia is acute," said Dr Liz Rogerson, Head of the Distance Learning Centre within the School of Nursing and Midwifery.

"The Children's Palliative Care Society, led by paediatrician Dr Anda Jansone, is the centre for best practice in Latvia and they have lots of good stories to tell but all their experience and skills are in Riga. They want to take their expertise out to the rest of the country but education and training resources in palliative care are limited and there are significant barriers to learning for healthcare professionals.

"Delivery of education by distance learning is in its infancy and releasing staff from practice to attend courses costs time and money particularly for those in remote and rural areas. One of the objectives of this project was to open the door to distance learning in Latvia, to make a case for it and get the government on board."

The distance learning units used in the Latvian project were part of an innovative training model designed and developed by the University for the flexible delivery of continuing professional development. Known as GLIDERS, the units consist of 10 or 15 hours of self-directed learning.

The multi-professional group taking part in the Latvian project accessed the GLIDER units online via the University's Virtual Learning Environment (VLE) or by CD ROM enabling them to study at a time and place convenient to them.

"The model was used as a training tool in distance learning methods as well as a means of providing education on palliative care topics," said Dr Rogerson, who travelled to Riga earlier this year with Business, Systems and Marketing Manager Nicola Cochrane and Senior Lecturer Irene McTaggart for a major conference to mark the end of the project.

"We developed two GLIDERS in partnership with the CPCS on topics identified by our partners in Latvia. That ability to incorporate local and cultural aspects into the learning experience is one of the things that make the model unique. It also has a very strong practice focus."

Dr Rogerson is hoping that although the project was relatively small in terms of numbers being trained it will pave the way for the extension of palliative care services in Latvia and ultimately change the lives of families all over the country.

"Palliative care is aimed at providing support and making life as comfortable, as meaningful and as fulfilling as possible," she said.

"It recognises that after a diagnosis of terminal illness the focus should be on living rather than dying. Sadly for many families in Latvia there is nothing much in terms of support between the diagnosis and the funeral.

"It can put a terrible strain on families and relationships. The pressure can be horrendous and trying to deal with it alone can be unbearable.

"The CPCS have a holistic approach aimed at the whole family. It is about the right focus at the right time by the right person and it recognises that a family's needs can change over time. Their goal is to give what they are giving to a small number to many more people throughout the country. Hopefully we have gone some way to helping them achieve that goal."

> "It is about the right focus at the right time by the right person and it recognises that a family's needs can change over time."

Life-long learning with GLIDER™

The GLIDER™ model devised within the School of Nursing and Midwifery is aimed at supporting life-long learning for healthcare professionals by providing the delivery of continuing professional development by distance learning.

It offers a diversity and depth of subject matter with a large menu of topics covering clinical issues, management, leadership and education.

Each GLIDER™ unit consists of 10 or 15 hours of learning and offers both information-based and practice-based learning.

The GLIDER™ design has been accredited b the American Nursing Credentialing Centre as an innovative approach to continuing education.

Celebrating a legend

The remarkable achievements of Professor Sir D'Arcy Wentworth Thompson, pioneer of life sciences and mathematical biology and founder of the University's Zoology Museum, are being highlighted with a year-long programme of celebrations to mark the 150th anniversary of his birth.

Exhibitions, public lectures, street theatre and an academic conference are all included in the programme which is being organised by the University's Museum Services in association with the College of Life Sciences and the University of St Andrews Museum Collections. Funding for the celebrations has been provided by the Royal Society's Local Heroes programme.

Thompson's connection with the University began in 1885 when he arrived to take up the first Chair of Biology at the then University College Dundee. He quickly set about creating a museum to help the teaching of zoology students and over the years filled it with a fascinating array of exhibits, many collected during his trips overseas.

In 1917 he became Professor of Natural History at St Andrews and published his masterpiece On Growth and Form, written during his time in Dundee. Described as the "greatest work of prose in 20th Century science," it has influenced generations of biologists, mathematicians, architects and artists with its groundbreaking investigation into the growth of organisims.

A major exhibition exploring his life and work including the writing of On Growth and Form, as well as his international fisheries work, his expeditions to the Bering Sea and his years at Dundee is currently on display at the Lamb Gallery in the Tower Building.

D'Arcy Thompson: Growth & Form, which runs until 22 May, was officially launched by University Principal Professor Pete Downes last month. At the launch he paid tribute to the pioneering scientist's many and varied abilities.

"D'Arcy Thompson's abilities as a writer and as a scholar, unbounded by the disciplinary silos of his time, mark him out as a pioneer who founded mathematical biology," he said.

"He held chairs in Zoology and later Natural History for a total of 64 years until his death, aged 88, a record that surely cannot be broken. Biologists in Cambridge, Dundee and St Andrews, the universities in which he studied and worked, share great pride in his legacy."

The exhibition includes unique material from the collections of the Universities of Dundee and St Andrews, the National Museums Scotland, Perth Museum and Art Gallery and the St Andrews Preservation Trust Museum. A companion exhibition is being held at the Gateway Galleries in St Andrews until 3 May.

A display focusing on D'Arcy Thompson's links with polar exploration can be seen at Discovery Point until 13 June. D'Arcy Thompson's Voyages of Discovery also looks at how his connections with Dundee whalers allowed him to build up one of the best collections of Arctic zoology in the world

Artwork created in response to D'Arcy Thompson and his collections by artists Paul Harrison and Gavin Renwick will be on show at the Dalhousie Building during May while Sensation will also be hosting an exhibition from April 30 onwards.

A number of events have also been planned for the first weekend in May to coincide with the great man 's birthday on 2 May. The anniversary weekend programme includes an afternoon of music and talks in the D'Arcy Thompson Zoology Museum on 1 May and a Saturday Evening Lecture the same day by Nobel Laureate Professor Lewis Wolpert who will be discussing The Development of Pattern and Form.

On 2 May there will be a street theatre performance of a specially commissioned drama about D'Arcy and on 3 May there will be a public performance of D'Arcy inspired poetry by creative writing students.

A second special events weekend will take place later in the year when art historian Professor Martin Kemp from the University of Oxford gives a public lecture on the artistic influence of Thompson's work at the Lamb Gallery on 2 September. This coincides with the opening of another exhibition, "Sketching the Universe", which shows Thompson's own collection alongside art inspired by his work.

On 3 September a series of talks exploring D'Arcy Thompson's work will take place at St Andrews while an academic conference examining his legacy will take place in Dundee the following day.

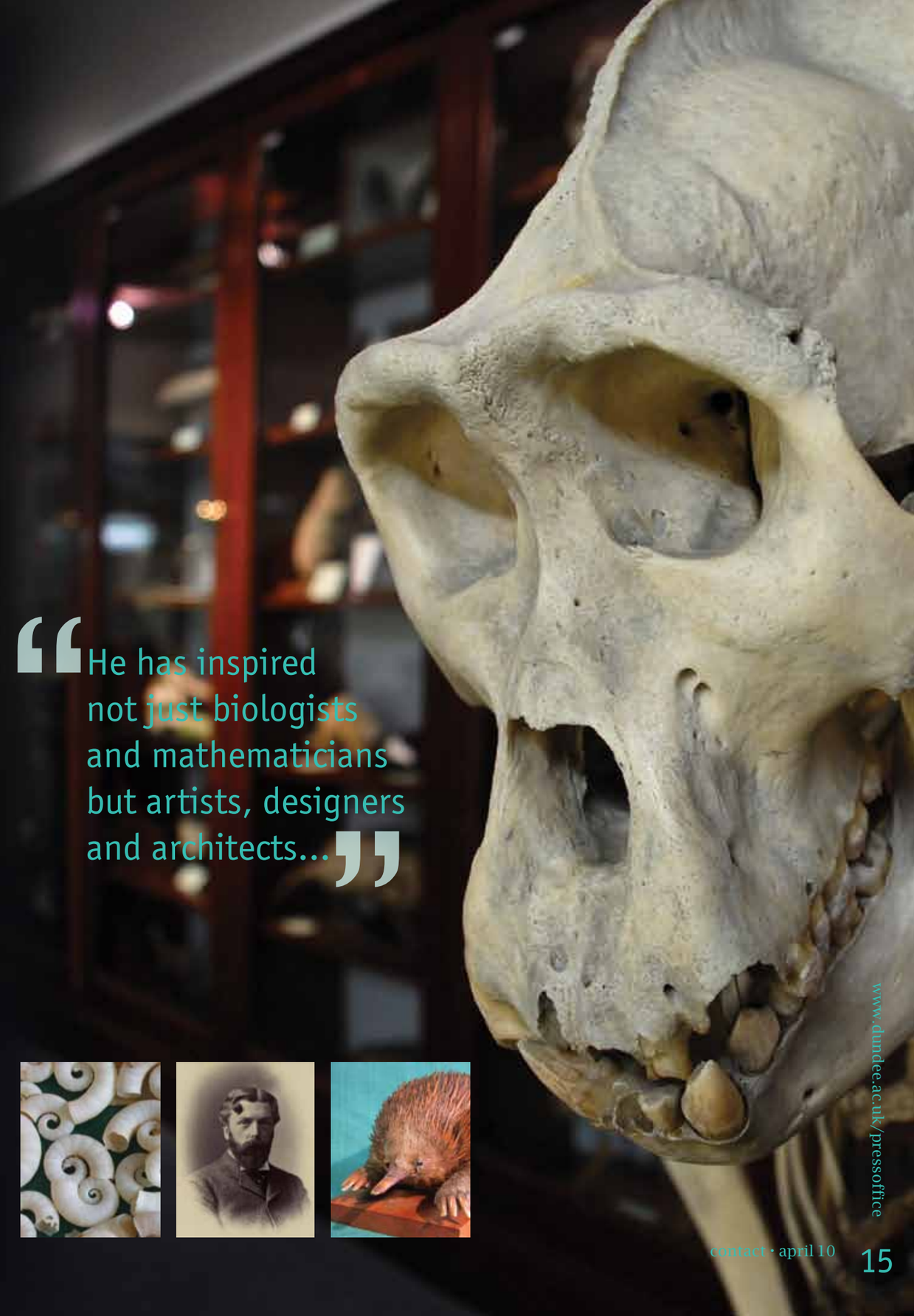
Matthew Jarron, Curator of Museum Services and co-author of a new book on D'Arcy Thompson said the impact the inspirational polymath made was considerable.

"He has inspired not just biologists and mathematicians but artists, designers and architects," he said. "As our first Professor of Biology, D'Arcy deserves to be recognised as the pioneer of Life Sciences in Dundee and also as one of the key people responsible for establishing the Medical School.

"He was actively involved in many local organisations including the Dundee Naturalists Society, the Dundee Working Men's Field Club, the Dundee Social Union and the Dundee Royal Infirmary. And at the same time he was travelling the world acquiring specimens for his wonderful museum, once one of the largest in Britain."

Matthew's book, co-written with Cathy Caudwell, is on sale in the D'Arcy Thompson Zoology Museum, the Growth & Form exhibition in the Lamb Gallery, the Museum Services office and the University Archives, price £3.

More information on the D'Arcy Thompson 150 celebrations is available by visiting the website at **www.darcythompson.org**



Leading the Energy Challenge

> It's an enormous challenge to encourage people of the benefits of having a greener approach

Professor Peter Cameron, newly appointed director of the University's Centre for Energy, Petroleum and Mineral Law and Policy, has set himself something of a challenge.

Not content with building on the already impressive international reputation of the centre developed over the past 30 years, strengthening its research profile and establishing new collaborations with domestic and overseas universities he is also determined to champion the benefits of going green.

While arguing the case for the environment may seem to be a 21st Century cause celebre, when it comes to the energy industry it is still something of a bold approach.

"Even just five years ago people would be thinking about resource development in positive terms," said Professor Cameron, an expert in oil, gas and energy law and Director of Research at CEPMLP since 2002.

"The feeling was that on balance we would be better off developing resources than not. Now there is increasing evidence to show that this is not always the case. Oil development, for example, can have a very negative impact on people in developing countries. It's not just environmental damage but social impact too: increasing poverty and declining health have followed in many shocking cases ".

"Governments sometimes award rights to oil companies in non-transparent ways on terms that are poorly negotiated and don't benefit the host country. There is also a lack of capacity particularly in parts of the world with the most governance problems. There may be a lack of skilled staff or a lack of institutions and there are also frequent problems with corruption."

The answer, he believes, lies in encouraging good governance and looking at the bigger picture in terms of the effect resource development can have on the wider community.

"There should be balance in the ways we approach energy problems. Instead of being pro oil we should be pro social development. We have to be more socially responsible. We have to look at what laws and policies are necessary to develop resources in socially responsible and environmentally sustainable ways."

Professor Cameron is under no illusions as to the scale of the task ahead.

"With increasing competition for energy resources, and our growing import dependence in the UK, it's an enormous challenge to encourage people of the benefits of having a greener approach but it is important we do. We, at the Centre, are training people to be the leaders and policy makers of the future. We have a responsibility to provide a balanced approach but also an opportunity to encourage changes in thinking."

He added that a new international research project led by CEPMLP and funded by the World Bank is one example of the work being done to promote good governance in the use of energy resources throughout the world.

The $1.5m three-year project, which involves collaboration with the University of Witwatersrand in South Africa and the University of Queensland in Australia, aims to produce an Internet-based guide to best practice in the international petroleum and mining industries.

It is hoped the web-based guide will be used by governments, particularly in developing countries, to design policies to assist them in using their natural resources to their best advantage.

"We'll be looking at different frameworks to help people make the best choices for their particular circumstances," he said. "We'll be examining all the options and presenting them in an internet based book. It will be a sort of Wikipedia open-source interactive database of case studies and good practice. We will be working with a Dundee IT firm to build it up."

The World Bank project, which launched in March, and which Professor Cameron is leading personally, also ties in with his goal of further strengthening CEPMLP's international research profile.

"The strength of the centre's research clusters has been building up over the past three years and we now have around £5 million in research funding to the end of 2012 from the World Bank, the European Union and the UK's Engineering and Physical Sciences Research Council.

"I want us to improve the quality of our research by linking up with other leading universities internationally, to establish a network of universities that we would feed into and lead. Part of the attraction of the World Bank project is that we do just that."

The Centre's green approach is also apparent in one of its newest courses. The Masters course in Climate Change and Energy Law and Policy welcomed its first intake of students in February.

It aims to provide an understanding of the development of climate change regulation and legislation, particularly from the viewpoint of energy reform.

"Other universities offer courses in climate change but we give it a different angle in that we look at how it affects the oil and gas industries," said Professor Cameron. "I expected two or three in the first year; instead, we had almost fifty!"

The LLM is one of a suite of postgraduate courses offered by CEPMLP covering a wide range of energy issues. The centre now boasts almost 500 post-graduate students from around 50 different countries and is considered a centre of excellence in its field.

"There has never been this level of interest in energy studies. The challenge for us is to adapt our teaching and research to the coming low carbon era, and to show leadership".

As an ex-marathon runner, with New York and others under his belt, Professor Cameron is not phased by the challenge ahead.

CEPMLP to lead €2.7m energy resources study

The challenges presented by global competition for access to oil, gas and mineral resources are the subject of a European-wide study being led by the Centre for Energy, Petroleum and Mineral Law and Policy.

Funded by a €2.7m grant from the European Union's Seventh Framework Programme and including eleven other partners throughout Europe, the project aims to identify the challenges and propose new approaches to collaborative solutions.

"This project is very timely," said project co-ordinator Professor Philip Andrews-Speed from CEPMLP. "Though the fear of depletion of critical energy and mineral resources is not a new phenomenon, the last decade of sustained economic growth across the world has reinforced this concern.

'High commodity prices and fears of future shortages tend to raise tensions and stimulate conflict. As resource-importing nations struggle to secure their supplies, so resource-exporting nations seek to enhance their bargaining power."

"Importing countries compete with each other rather than co-operate in efforts to secure supplies, whilst within resource-rich countries conflicts may arise as different parties seek to gain the benefits of the additional revenues.

"This project will identify the main issues regarding this competition to access supplies, and propose new approaches for collaborative solutions. It should support EU evidence-based policies in the energy sector. With the Lisbon Treaty, energy is now a shared competence between the Union and the Member States."

The project "Competition and collaboration in access to oil, gas and mineral resources" will run for three years. It draws on expertise in geology, engineering, new technologies and materials, economics, international relations, political science and law.

The other partner institutions in the project are University of Westminster (United Kingdom), Clingendael International Energy Programme (Netherlands), Bundesanstalt für Geowissenschaften und Rohstoffe (Germany), Fondazione Eni Enrico Mattei (Italy), Centre National de la Recherche Scientifique (France), ENERDATA (France), Raw Materials Group (Sweden), Gulf Research Center Foundation (Switzerland), The Hague Centre for Strategic Studies (Netherlands), Fraunhofer Institute for Systems and Innovation Research (Germany) and Osrodek Studiow Wschodnich (Poland).

Dundee scientists help solve “Jigsaw murder” puzzle

The University’s Centre for Anatomy and Human Identification (CAHId) has played a key role in helping solve one of the UK’s most infamous murder cases of recent times.

Police investigations into the so-called “Jigsaw Murder” began in March of last year after body parts were found scattered across two counties in England. Police in Hertfordshire and Leicestershire launched an investigation when the first body part was found in a layby. Over the next two weeks, a head, torso, left forearm and a leg were discovered.

“Right from the beginning this was a particularly difficult case for police, who first had to establish whether the body parts were from the same person or different people,” said Professor Sue Black, Director of CAHId. “Then, once it was clear it was one person, there was the task of identifying who it was.”

Using specialised facial recognition techniques, Dr Caroline Wilkinson in CAHId was able to help confirm the police’s suspicions that the body was that of a Mr Jeffrey Howe, who had previously been reported as a missing person.

Professor Black and another CAHId colleague, Lucina Hackman, were then asked to lend their expertise to determine how the body had been dismembered and with what level of skill the grisly procedure may have been carried out.

“It became apparent to us that whoever had cut up this body possessed a considerable amount of skill and a good knowledge of anatomy,” said Professor Black. “The dismemberment of the body appeared to have been carried out efficiently and probably quite quickly.

“From our investigations we were able to tell police that cut marks seen on the skull and other joints were not the result of any animals getting at the bones or anything like that. In fact, a determined and skilful effort had been made to remove features of forensic relevance pertaining to the manner of Mr Howe’s death.

“A great deal of care and attention had been paid to ensuring that bruising and other post mortem evidence which indicated the manner of his death were removed.”

The flesh from the face had been removed, muscles had been excised, the tongue, eyes and ears removed, and the hands have still never been recovered.

The CAHId team’s evidence chillingly suggested that whoever had cut up Mr Howe’s body very likely had experience of carrying out similar procedures.

The police’s investigations eventually led them to Stephen Marshall (38), from Hertfordshire, a former body builder and bouncer, and his former girlfriend Sarah Bush (21), from London.

Marshall was found guilty of the murder of Mr Howe and sentenced to a minimum of 36 years in jail. Sarah Bush pled guilty to two counts of perverting the course of justice in relation to disposing of Mr Howe’s body and lying to police knowing they were investigating the disappearance of Mr Howe. She was jailed for three years and nine months.

The case has sparked a further investigation, partly spurred by the evidence uncovered by the CAHId team, into claims Marshall may have dismembered at least four other victims during the 1990s. He is said to have had links to a notorious gangland criminal family.

*In a separate case, hand comparison techniques developed at CAHId have been used to help convict a paedophile in Bradford. Brian Crossley admitted 35 charges at Bradford Crown Court and subsequently was jailed for two years and served with a Sexual Offenders Prevention Order.

CAHId’s work in the case was praised by the prosecution and by police, who said the forensic findings had formed an overwhelming case.

The hand comparison techniques developed at CAHId were previously used to help uncover Scotland’s biggest paedophile ring, which led to a court case last year where members of the gang were handed long jail sentences.

“Hand comparison is an area we have developed that is offering another tool for human identification,” said Professor Black. “We have already established the world’s first large database for hand identification and we are continuing to develop it as a technique, as well as applying the knowledge we have gained from working on hands to other areas of the body.”

TV spotlight on work of CAHId

The work of Professor Sue Black and her team at the Centre For Anatomy And Human Identification comes under the spotlight in a new documentary series due to be aired on BBC2 in early summer.

History Cold Case will look at historical remains from Roman times to the early 20th century from all over the UK and reveal the personal stories behind them.

Skeletons of everyday people from across the ages will be analysed as the *History Cold Case* team reveal the detail of how each person lived, opening new windows on the history of our forebears by literally fleshing out the person the skeleton once was.

The team will work on answering three big questions for each skeleton: Who were they? Why did they die? And what does their life story explain that was not known before?

The remarkable stories of everyday people will be painstakingly reconstructed, along with faces that haven’t been seen for hundreds of years. Skeletons unearthed in a range of circumstances include a bizarre mummy discovered by accident in the cellar of a Victorian house.

the art of ideas

It may not be immediately apparent what an artist has in common with a biomedical engineer or what links an architect with a business innovator but it should become clearer at a major symposium being held at the University this summer as part of a nationwide celebration of craft in Scotland.

Some of the world's top innovators in a variety of fields will be coming together to share their ideas on prototyping at the two-day symposium on 10 and 11 June.

Co-convened by Duncan of Jordanstone College of Art and Design (DJCAD) and the Victoria and Albert Museum in London, *Prototype: Craft in the Future Tense* will look at the importance of prototyping and how it can be used to enhance understanding and collaboration across disciplines.

Invited speakers include conceptual artist Simon Starling, winner of the 2005 Turner Prize, Michael Schrage, an internationally acclaimed innovator and pioneer of rapid prototyping, Constance Adams, a space architect and consultant to NASA and Norman Klein, a cultural critic, historian and novelist based at the Californian Institute of the Arts.

Biomedical engineer Dr Stuart Brown, leader of the Surgical Technology Group at the University's Institute for Medical Science and Technology and Hazel White, director of the Masters of Design programme at DJCAD will also be speaking at the event held in the Dalhousie Building.

"All the speakers have been invited because of their progressive thinking," said Dr Louise Valentine, co-director of Craft Festival Scotland, the parent event of the symposium.

"They all push the boundaries and we will be looking at how they are prototyping their ideas. A diverse range of perspectives concerned with innovation and ingenuity will be presented and we are hoping that this will stimulate unusual conversations and debate. It is aimed at exploring the many and radical ways people from across disciplines are experimenting with and sharing ideas."

Dr Valentine added that the symposium and the wider craft festival have been driven by Past, Present and Future Craft Practice (PPFCP), a major five-year craft research project funded by the Art and Humanities Research Council to the tune of £442,000.

Led by Professor Georgina Follett and Dr Valentine the project has been exploring new directions, practices and perspectives in contemporary craft with an ultimate goal of defining a new relevance for craft in the 21st century.

"The project was the largest investment in craft research in the UK," said Dr Valentine. "Craft research is a new form of practice and Dundee is recognised as leading the way in this.

"We will now be showcasing the results of our research through Craft Festival Scotland. It is a way of evaluating the project and disseminating the ideas and giving people the opportunity to see what is going on in the sector. The symposium is a major part of the festival. We're hoping it will highlight and celebrate the diversity of craft in the 21st century.

"There are still stereotypical perceptions about what is craft and if things don't fit into certain categories then there is a feeling that it is not craft but we want to show that craft covers a wide and diverse area and includes people like biomedical engineers and architects.

"We will be looking at how they develop their ideas and what can be learned from different approaches to prototyping."

Deputy Head of Research and Head of Graduate Studies at the V&A Glenn Adamson, who is involved in co-ordinating the symposium added that Dundee was the ideal location for the symposium.

"Dundee seemed the perfect place for an interdisciplinary discussion of prototypes - given the university's deep involvement with creative practice in both the arts and sciences," he said.

Craft Festival Scotland launched in March with the Past, Present & Future Craft Practice exposition at the Matthew Gallery at DJCAD. Running until 24 April the exhibition presents an overview of the project and features new work by silversmith Drummond Masterton, interactive jeweller Hazel White, weaver Tim Parry-Williams and product artist Geoffrey Mann.

The festival includes a programme of events, exhibitions and activities in Dundee throughout the summer months as well as a host of events across Scotland and the UK.

The Victoria and Albert Museum in London will be one of the locations outwith Dundee to take part in the celebrations when it hosts an exhibition looking at 300 years of British quilting history. As part of the PPFCP project a quilt by DJCAD textile student Kirsty Fenton will be on display alongside more than 70 quilts including bed hangings from the 18th Century and a creative reinvention of the quilt by artist and Turner Prize nominee Tracey Emin.

For more information symposium and the festival visit **www.dundee.ac.uk/djcad/prototyping/**

"Craft research is a new form of practice and Dundee is recognised as leading the way in this."

Arum Pins • **Georgina Follett**

Institute of Academic Anaesthesia launched

A new Institute of Academic Anaesthesia has been established at the University to raise the profile of a key area of medical science and meet a "pressing need" for more research in the subject.

In 2005 a report from the Royal College of Anaesthetists identified a lack of research and prescribed measures to help reinvigorate the academic mission of university departments of anaesthesia.

The University, working with partners in NHS Tayside, responded to the challenge by establishing the new Institute and recruiting Professor Tim Hales from a prominent position in the USA to lead it.

His appointment as Director marks his return to Dundee, where he studied for his PhD 20 years ago.

"People expect safe and effective pain relief," said Professor Hales. "However, all anaesthetics have deficiencies, which is not surprising given that most entered clinical use through a process of trial and error.

"Local anaesthetics in the dental setting not only kill pain but leave the face numb and partially paralysed. General anaesthetics, such as the intravenous agent propofol (the drug responsible for Michael Jackson's untimely death) are lethal at doses slightly higher than those used for surgical anaesthesia.

"Opioid analgesic drugs commonly used to treat long-term pain are structurally related to heroin and become less effective with prolonged use, leading to physical and sometimes psychological dependence.

"There is a pressing need for research leading to improved anaesthetics."

£500,000 has been invested in refurbishing laboratories and office space at the School of Medicine at Ninewells Hospital to accommodate the Institute, which will work closely alongside the University's Centre for Neuroscience.

The Centre for Neuroscience is already known internationally for work in the laboratories of Professor Jeremy Lambert and Dr Delia Belelli on the mechanism of general anaesthetics.

"The arrival of Professor Hales and his research team from Washington greatly strengthens this area and establishes a new research focus aimed at understanding the mechanisms underpinning tolerance and addiction to pain killers such as morphine," said Professor Lambert.

"For the research to be truly translational and indeed for the future of academic anaesthesia in the UK, it will be essential to engage clinicians in such cutting edge studies. Professor Hales has extensive experience in both Washington and Los Angeles of involving anaesthetists in his research."

Professor Hales has expressed his enthusiasm for the challenges posed by the new position.

"Bringing my lab to Dundee will strengthen ongoing collaborations with Professor Lambert and others in the Centre for Neuroscience while establishing new collaborations with clinical investigators within the department.

"The generous support of the University and several local charities has enabled us to create a fully equipped Institute of Academic Anaesthesia comprised of a suite of laboratories and office space. This is a facility in which basic scientists and anaesthetists will work together. Bringing clinical investigators and experts in imaging, electrophysiology and behavioural neuroscience together will accelerate progress in the development of safer and more effective anaesthetics."

YouTube stars wanted

The deadline for the University's video competition, offering a £300 cash prize and a chance to be featured on YouTube, is the end of this month.

All entries for the competition, which aims to share personal discoveries of Dundee with prospective students, must be submitted by midday on 30 April.

What's Worth Discovering @ Dundee is looking for videos, of no more than 90 seconds, covering any aspect of life in the city that may interest new students.

The video should be of sufficient quality to publish and to be used by the University for promotional purposes.

The competition is open to all, and each entrant can submit as many videos as they wish. Special equipment is not a prerequisite as original and interesting ideas are more important than technical wizardry.

The competition follows on from last year's highly successful 'Picturing Dundee' photography competition, which attracted dozens of entries from snappers who captured the essence of modern Dundee in a series of stunning images.

More information, including full terms and conditions and details about how to enter and upload your video to YouTube, is available by visiting **www.dundee.ac.uk/videocompetition**

Cycle to work award for University

The University has become the first employer in Tayside to receive an award recognising efforts to encourage staff to leave their cars at home and cycle to work instead.

Trudy Cunningham, Environment & Sustainability Officer, was presented with the Cycle Friendly Employer Award by Chris Johnson, Active Travel and Education Officer of Cycling Scotland in March.

"The University is keen to promote sustainable travel and encouraging staff to cycle to work is obviously part of this," she said.

"Cycling to work has benefits for all - it's good for the environment because it helps lower carbon emissions, it's good for the cyclists financially and for their physical and mental well being. It's good for the University as it reduces the number of cars on campus and reduces our footprint."

The University has introduced several schemes aimed at encouraging staff to get on their bikes and reduce its environmental impact, in recent years. A Cycle to Work initiative allows staff to hire bikes and safety equipment at a cost-effective, tax-free rate that avoids an expensive initial outlay, while a bike pool is also available for staff.

Approximately five per cent of staff and three per cent of students currently commute by bike, and a Bicycle Users Group is well established at the University. New racks, partly funded by TACTRAN, have been installed across the University campus to allow cyclists to safely park and lock their bikes outside the most commonly used buildings.

For more information visit:
www.dundee.ac.uk/general/travel/cycle.htm

Final four decided for Book Prize

Four aspiring novelists have been shortlisted for the sixth Dundee International Book Prize, an annual collaboration between the University, Polygon and Dundee City Council's *One City, Many Discoveries* campaign.

More than 100 writers from all over the world submitted entries to the competition which offers a £10,000 prize, the highest in the UK for an unpublished author.

The final four are "*Two Boys and a Dog*" by Dr Judith Elizabeth Hampson from Forres, "*Act of Murder*" by Alan Wright from Wigan, "*I Saw it and then it moved*" by Rachel Elliott from Bath and "*More than Kin*" by Lisa Ballantyne from Scotland.

The winning novel will be chosen by judges David Robinson, Books Editor for the Scotsman newspaper and Cynthia Rogerson, award-winning writer and co-director of Moniack Mhor, an Avron Writing Centre in Inverness-shire.

The winner will be announced at a dinner on Friday 24th June in front of an audience of industry experts, shortlisted writers and sponsors of the prize. They will also speak at the Dundee Literary Festival on Saturday 25th June.

"The shortlist reflects a wide variety of styles of writing from debut authors across the world - we received entries from the USA, Spain, Germany, Italy and South Africa," said Dundee Literary Festival Director Anna Day.

"There are some fantastic stories in the final four and it's going to be tricky to choose a winner but as always we're looking for a creative new voice who demonstrated innovation and the ability to create a real page-turner."

Councillor Will Dawson, Convenor of City Development for Dundee City Council added, "The Book Prize is a fantastic way of discovering new writing talent, and it's inspiring to see so many entries come in from would-be authors around the world. Dundee is committed to supporting innovation and the city is a hub of creativity - whether that's in the arts, digital gaming or music. The Book Prize shows that we're serious about recognising and celebrating that talent!"

Last year, local crime writer Chris Longmuir secured a publishing deal and the £10,000 prize for her fiction novel *Dead Wood* which is set in Dundee and uncovers the terrifying truth behind a serial killer who seems to take his fatal inspiration from the Templeton Woods murders of 1980.

Extracts of the top ten have been published online at **www.literarydundee.co.uk/bookprize.htm**

Poetry success for librarian Andy

As a librarian Andy Jackson, based at the University's Ninewells Library, is used to being surrounded by books by other people but he can now add his own name to the list of published writers following the launch of his debut collection of modern poetry.

The Assassination Museum was published in March by Red Squirrel Press, a Tyneside-based independent publisher.

The book, described by poet and broadcaster Ian MacMillan as being "alive with possibility and excitement," contains around 50 of Andy's poems inspired by popular culture and modern life and includes photographs taken by Professor Catia Montagna, Head of Economic Studies within the School of Social and Environmental Sciences.

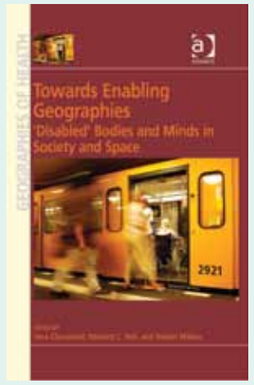
"The photographs are interesting and unusual images, some of Berlin and Paris, and provided the inspiration for a number of the poems," explained Andy who won the National Galleries of Scotland creative writing competition in 2008.

Based in Tayport, Andy began writing seriously in 2002 when he attended a creative-writing group led by the University's then writer-in-residence Collete Bryce.

"She was very supportive and helped me develop a better understanding of the creative process," he said. "Jim Stewart and Nicole Devarenne in the department of English have also been very supportive and helpful over the last few years."

Inspired by popular culture and the quirks of modern relationships Andy has had his work featured in a range of publications including *Poetry News*, *New Writing Dundee* the prestigious *New Writing Scotland*.

The Assassination Museum is his first book of poetry. It was launched in Edinburgh and Dundee in March. It is available from **www.redsquirrelpress.com** at £6.99 or via Amazon.



Towards Enabling Geographies: 'Disabled' Bodies and Minds in Society and Space
Edited by
Professor Vera Chouinard,
Dr Edward Hall and
Dr Robert Wilton

Over the past 15 years, human geography has made very significant contributions to the understanding of disabled people's identities, lives and places in society. Bringing together the leading international scholars in this field, Towards Enabling Geographies distils the second wave of geographical studies concerned with disability and 'embodied differences'.

The book demonstrates how this area of study has challenged the conventional definitions of disability, while continuing to grapple with important issues such as policy and social inclusion, ensuring the value of this work for a broader social science audience.

With contributors from Canada, New Zealand, USA, Ireland and the UK, this important work covers key topical areas with chapters including disability, embodiment and the meaning of the home, geographies of disability: reflections on new body knowledges, Evaluating workfare: disability, policy and the role of geography.

Dr Edward Hall is a Lecturer in Geography, School of Social and Environmental Sciences at the University of Dundee.

Jacqueline Wilson wows book fans

Bestselling children's author Dame Jacqueline Wilson attracted a sell-out crowd to the Dalhousie Building in March when she gave a reading from her new book and talked about her career as a writer.

Some eager fans began arriving for the Literary Dundee event hours before the award-winning novelist was scheduled to appear at 7pm.

During her appearance before more than 300 fans Jacqueline read extracts from her new book *Little Darlings* and described her early career in Dundee where she worked as a journalist for DC Thomson.

Since having her first book published in 1969 she has gone on to sell more than 25 million copies of her novels which include the Tracey Beaker series.

She was awarded an honorary degree from the University in 2007 and was made a Dame in the 2008 New Year's Honours.

Moving stories in new book

How children can be helped to cope with the move from pre-school to primary, primary to secondary and onto to leaving school is the focus of a new book edited by a senior lecturer in the School of Education, Social Work and Community Education.

Dr Divya Jindal-Snape led a team of researchers including colleagues Dr Keith Topping, Dr David Miller and Dr Elizabeth Hannah in compiling the book "Educational Transitions: Moving Stories From Around the World."

In total 19 academics from New Zealand, Japan, China, Finland, England, Scotland, Nigeria and the US, who have been exploring the process of transition in different education systems, took part.

"For most children, progressing from one educational stage to another is a very exciting and fulfilling time but some find it more difficult than others," said Dr Jindal-Snape. "Research suggests that if the child struggles with the transition then there might be a drop in achievement, a drop in self esteem and a lowering of confidence.

"Some may have formed attachments to the place, whereas others struggle with their network of friends being disrupted. Staff ratio changes from almost one-to-one basis at nursery to maybe one-to-thirty in primary to dealing with a whole range of new teachers and environments in secondary.

"Most researchers who have examined transitions previously have concentrated on only one of these stages but what is unique about our book is that it examines all of these transitions as part of one process.

"This book is about examining how we can help teachers, practitioners and parents to help those changing stages."

More information about the book, including how to buy it, is available by visiting: **www.routledge.com/9780415805919**

History of Scotland and New Zealand explored in new book

The global impact of the Scottish Diaspora following mass emigration in the 18th and 19th centuries is examined in a new book by Dr Stephen RH Jones, an Honorary Research Fellow in the School of Social and Environmental Sciences.

"Doing Well and Doing Good: Ross and Glendining, Scottish Enterprise in New Zealand" explores the lives, careers and legacy of John Ross and Robert Glendining, Scots drapers who emigrated to New Zealand at the beginning of the 1860s gold rush.

They went on to amass considerable fortunes but their story is not just a tale of two enterprising Scotsmen forced to emigrate to seek opportunities not available in their homeland.

Dr Jones says that Ross and Glendining provided employment for hundreds, if not thousands, of fellow émigré Scots and displayed the pioneering spirit, work ethic, religious obedience, frugality and invention for which the Scottish Diaspora became renowned across the world.

"Essentially operating in a microcosm of Scotland abroad, where many of their customers spoke with a Scottish brogue, they made a huge contribution to the development of New Zealand," he said.

"They founded the largest manufacturing company in the country and were instrumental in developing the clothing, footwear and textile industries. Ross and Glendinning were also pioneers – their Roslyn Woollen mills, pioneered the commercial use of electricity and telephone.

"They were the first company in the Southern Hemisphere to produce worsted yarn and cloth, while other firsts included patented machinery and new production processes.

"As an employment policy, Ross 'preferred to employ Scotchmen'. They took a lot of people from the Borders wool industry out to New Zealand to work for them and so their story tells us a lot about the history of both countries."

Robert Glendining passed away in 1917, ten years before his long-time business partner. The firm survived the 1930s Depression fairly well but, after the Second World War, it languished. Ross & Glendining Ltd was finally taken over and asset-stripped in 1966.

Author Dr Jones himself emigrated to new Zealand as a young man, having first visited the country as a Merchant Seaman. After obtaining his economics degree in London, he moved to New Zealand and eventually became Professor of Economics at the University of Auckland.

After more than 20 years, Dr Jones returned to the UK to take up a role with the University of Dundee. Now retired, he holds the position of Honorary Research Fellow and was asked by former colleagues to write a comprehensive history of business in New Zealand.

"As I was conducting my research I was amazed to find that virtually nothing had been written about this very large firm that had played such a prominent role in New Zealand life and history.

"I felt no business history of New Zealand could be written until this firm had been dealt with."

"Doing Well and Doing Good: Ross and Glendining, Scottish Enterprise in New Zealand" is published in paperback by Otago University Press, Dunedin.

A Philosophy of Drawing

An article in the February edition of Contact highlighting the posthumous publication of a book by Bill Cadenhead, a former lecturer at Duncan of Jordanstone College of Art and Design, may have given the impression that he didn't finish writing the book.

We would like to point out that Mr Cadenhead did, in fact, complete a Philosophy of Drawing before his death in 2005. The book was eventually published in 2009. The book is available from the University bookshop and directly from Mr Cadenhead's wife Vi.

court news

The February meeting of Court was preceded by two contrasting presentations from areas of the University that Court members do not have regular contact with. In the morning, Court members were treated to a tour of Archive, Records Management & Museum Services by the University Archivist, Mrs Patricia Whatley, and her colleagues, and members were shown some of the important documents and artefacts from the University's collection. In the afternoon, immediately prior to the Court meeting itself, the University Chaplain, the Revd Dr Fiona Douglas, spoke to members about her wide and varied role and also the work of her fellow honorary chaplains. Court members enjoyed both presentations and looked forward on future occasions to hearing about other parts of the University.

Finance and Strategy
The Court briefly discussed progress with the strategic review. The Principal made clear that the review was being driven by the need to support and promote excellence and hence a number of important strategic decisions required to be fully explored. Once proposals crystallised there would be an opportunity for wider debate across the institution and it was intended to provide the April meeting of Court with initial proposals.

University of Dundee Superannuation Scheme
A large part of the meeting was taken up with consideration of a proposal to begin discussions with the trustees of the superannuation scheme to consider future options for its development of the scheme. The Court noted that the Universities Superannuation Scheme was also currently undergoing a review. Court acknowledged the sensitivity of the issue for members of the scheme but understood that work was necessary to ensure the sustainability of the scheme.

Centre for Anatomy and Human Identification (CAHId)
The Court approved a proposal to begin work on refurbishment for the mortuary and embalming facilities at CAHId. HM Inspector of Anatomy had identified what work was necessary to ensure compliance with the rigorous regulations in this area.

Governance
The Court considered a number of governance issues at its meeting:

Firstly it welcomed the news that Brian Cox had been elected as the University's new Rector, succeeding Craig Murray. The President of DUSA reported that Mr Cox was excited about the new role and keen to play an active part in University and student affairs, and Court members looked forward to meeting him in due course.

The Court approved the proposal that Janet Lowe be appointed as the Chancellor's Assessor. It had been the view of the Governance & Nominations Committee that this role should be held by a long-serving and well-respected Court member and Court was very pleased to be able to approve the proposal.

Court also approved recommendations for the appointment of two new Court members, confirmed changes to Statute 9 (The Court) which it had approved at its previous meeting, and noted the process for electing a new Chairperson. The term of the current chairperson, Mr John Milligan, would end on July 31 2010, and Court members were informed that nominations were now open for the role. A ballot would take place in due course with the outcome to be announced to the meeting of Court on 26 April 2010.

Mike Pittilo
Sadly, the Court joined the Principal in paying tribute to the Principal of the Robert Gordon University who had recently died following a long illness. The Principal spoke of Professor Pittilo's dedication to and passion for his work as well as his approachable and likeable character. He would be sorely missed by his colleagues in the sector.

Blindfold handshake discovery in cancer fight

Researchers at the College of Life Sciences have made a significant new discovery about how cells behave and protect themselves against cancers and genetic disorders.

Professor Tomo Tanaka and his team members Dr Etsushi Kitamura and Mr Shinya Komoto, working in collaboration with researchers in Japan and Germany, have uncovered how cells ensure inheritance of their genetic information in order to prevent diseases.

The research team discovered what Professor Tanaka described as a 'blindfold handshake' in the crucial process of cell division, which generates the growth of tissue and organs.

Human cells contain 46 chromosomes, all of which carry vital genetic information that is crucial for the proper function of cells. Each chromosome must be precisely copied and separated as cells divide during growth of tissues and organs. Loss or excess of any chromosome could generate cancer cells, or cause genetic disorders such as Down's syndrome.

"The process of chromosome separation is regulated by a network of 'threads' called microtubules which pull the chromosomes apart into each newborn cell," said Professor Tanaka. "It had been thought this process the network was organised by the cell ends.

"To prepare for this process of chromosome separation, the thread network must first find and capture each chromosome. Normal cells can achieve this process in a defined, very short time window but it has been a mystery how they accomplish it so efficiently.

"We have discovered that these thread networks, somewhat unexpectedly, are generated not only from the cell ends but also from sites on the chromosomes themselves. Even more unexpectedly, chromosomes organize the thread network more frequently when preparation for chromosome separation is delayed, as if they sense there is a delay and they must be hurried.'

"It is remarkable that our cells invented such a clever mechanism. Because the thread networks from cell ends and from chromosomes can find each other and mingle quickly, cells become prepared for chromosome separation efficiently and on time. It is like two blindfolded people trying to find each other's hand for shaking; to achieve their handshake quickly, both need to extend their arms and move them around until they touch and their hands grasp each other."

The research team believes that this is one of the most crucial steps in assuring cells' chromosome inheritance during their divisions, thus preventing cell death, cancers and other diseases. The team is currently trying to discover how the 'blindfold handshake' is maintained without breakage once established.

The research was published by *Developmental Cell*.

Flowering genes offer human clues

Scientists at the University and the SCRI have uncovered an unusual form of gene control that could have implications for both plant and medical science.

Researchers led by Dr Gordon Simpson, Principal Investigator at the College of Life Sciences have been studying the genes that determine the time at which plants flower.

The findings made by Dr Simpson and team members Csaba Hornyik and Lionel Terzi relate to the way genes are switched 'on' and 'off' within the famous DNA double helix structure in our cells.

When a gene on one strand of the double helix is switched 'on', it is copied into a related molecule called sense RNA. When the copy is complete, the RNA is `cut' at the end and what is called a 'poly A tail' is added.

Dr Simpson's team were examining this process when they made their discovery.

'"We found that the flowering regulator we were studying could control where the RNA copy ended," said Dr Simpson.

"When we asked how this related to flowering time we got a surprise. We knew which flowering time gene to look at, but we didn't find any poly A tail differences there.

"Instead, we found a change on an RNA copy made from the opposite strand of the DNA double helix, called anti-sense RNA. We found that if these anti-sense RNA copies got their poly A tail early, almost no copies of the flowering time gene on the other DNA strand would be made, but if the poly A tail was added much later then lots of copies of the flowering gene were made."

The work may be important for medical science too. "If this form of gene regulation exists in humans, then its possible that disease-causing mutations that map to specific genes may actually be disrupting anti-sense RNAs and this could affect how we think about treatment design,'" said Dr Simpson.

The research was funded by the Biotechnology and Biological Sciences Research Council and the Scottish Government.

what's on...

27 March - 25 April
Simon Reekie exhibition
Tower Foyer Gallery
The bold and colourful work of Dundee-based artist and teacher Simon Reekie features in the latest exhibition to be held at the University's Tower Foyer Gallery.

The exhibition, which runs until April 25th, includes works loaned from various public and private collections.

Simon graduated with first class honours from Duncan of Jordanstone College of Art and Design in 2004. The following year, he won a postgraduate scholarship to study at the School of the Art Institute of Chicago.

He graduated with a Masters of Fine Art in 2008 and his successful thesis show was purchased in its entirety by Chicago's Zolla/Leiberman Gallery. Returning to Scotland, he undertook teacher training and now teaches art at Morgan Academy, his former school.

The exhibition is open between 9.30am and 8.30pm weekdays, and between 9.30am and 4.30pm on Saturdays, until April 25th.

For further information about the exhibition contact Matthew Jarron on museum@dundee.ac.uk or 01382 384310.

21 April
Bell Lecture series: Supporting Parents to engage in their children's learning: are we asking too much?
6pm, Dalhousie Building
Dr Maria Evangelou from the University of Oxford will look at the impact of parental involvement in children's learning in the latest lecture in the Bell lecture series hosted by the School of Education, Social Work and Community Educations.

Dr Evangelou's presentation will draw together findings from a number of studies that have been carried out in England during the last 10 years and will attempt to shed light on what we know about supporting parents as their children's first educators.

The Bell Lecture Series is organised in honour of the Rev Dr Andrew Bell, who pioneered peer learning during his time as chaplain to the army of the East India Company and who founded Madras College in St Andrews in 1833 and Bell Baxter High School in Cupar.

Free tickets for this event are available from the Tower Building Reception or OTI reception or by Email: t.pratt@dundee.ac.uk or n.m.barton@dundee.ac.uk and by phoning 01382 381512 or 01382 381546 Online: **www.dundee.ac.uk/tickets** (under 'Other Free Lectures' section)

2010 SATURDAY EVENING LECTURE SERIES

24 April
SELS 2010 - From Brunel to Wallace and Gromit: the Changing Public Image of the Engineer
6pm, Dalhousie Building

Sir Christopher Frayling, Rector of the Royal College of Art and a trustee of the Victoria & Albert Museum, examines the stereotypes of the engineer in popular film in this illustrated talk.

Starting with the 'missionary' image in the 1930s, the 'boffin' in the Second World War, the 'teacher of the world' in the 1950s, the lecture moves on to discuss 'Q' in the James Bond franchise and concludes with Wallace and Gromit, the eccentric potting-shed engineer and his plasticine dog. An epilogue looks at what is to be done and asks whether this kind of stereotyping really matters.

Tickets and more info from: 01382 385564, events@dundee.ac.uk, Tower Building Reception, **www.dundee.ac.uk/tickets**

26 April
Café Science: The Dundee Connection in the Solar Power revolution
7pm to 8.30pm, Chambers Coffee House
Dr Steve Reynolds from the School of Electronic Engineering and Physics will be putting solar power in the spotlight as part of the Café Science series of informal talks.

6 May
Global Futures Lecture: Delivering Scotland's Sustainable Future
6pm, Dalhousie Building
The emergence of sustainable development within Scotland and the challenges facing all of us in making the transition to a sustainable future will be explored in the first Global Futures Lecture organised by the newly formed Centre for Environmental Change and Human Resilience.

The inaugural lecture will be given by Professor Jan Bebbington, Chair in Accounting and Sustainable Development at the University of St Andrews and Director of the St Andrews Sustainability Institute and Vice Chair (Scotland) for the Sustainable Development Commission.

Professor Bebbington will make a comparative assessment of the wider international context as well as reviewing the current policy landscape.

The Global Futures Lecture Programme involves distinguished guest speakers addressing the CECHR research community.

CECHR is a new research initiative between the University and the Scottish Crop Research Institute. It provides a hub for interdisciplinary research addressing how societies can increase their resilience to environmental change and promote sustainable futures.

Tickets for the lecture are free and are available from cechr@dundee.ac.uk , 01382 384185, Tower Building Reception, CASS College Office or **www.dundee.ac.uk/tickets** (under Other Free Lectures section).

12 May
Café Science Extra - Image is Everything: Pushing the boundaries of ultrasound
6pm, Dundee Science Centre, Greenmarket
Ultrasound is great for seeing inside the body - like the baby scans pregnant women have. New technology makes it possible to see fantastic details of tissues with microscopic resolution. This can help diagnose melanomas, or show the effects of disease in an eye.

Researcher Christine Demore will talk about the latest advances in ultrasound technology and how the technology can be used in diagnosing and monitoring many diseases. Doors Open 5:30pm. Free entry. Not ticketed.

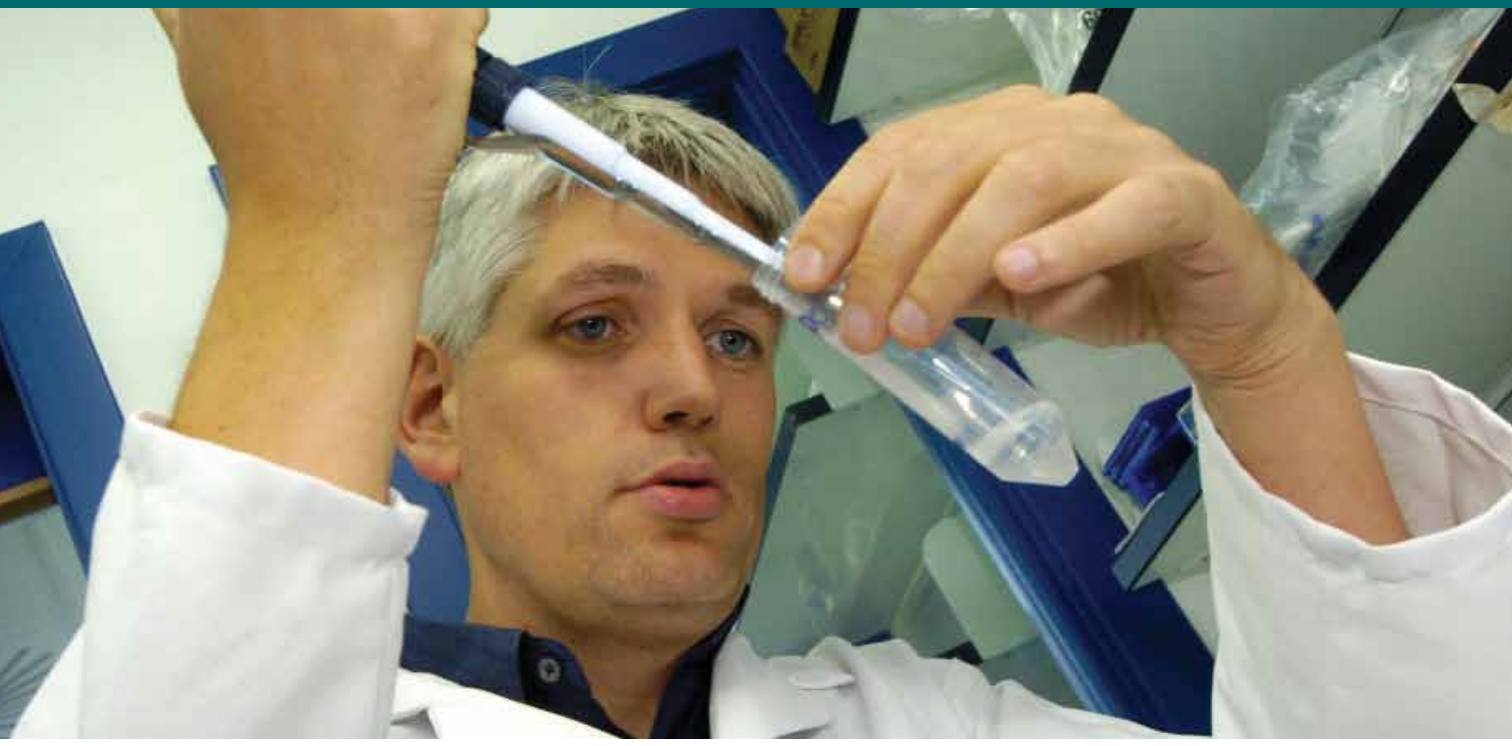
31 May
Café Science – Why can we not reduce the waistline of our population
7pm, Chambers Coffee House
Dr Calum Sutherland, Diabetes UK Senior Fellow and Reader in Neuroendocrinology, will be looking at why it is so difficult to reduce the nation's waistline by understanding the mixed messages in lifestyle advice.
For more information visit :
www.cafesciencedundee.co.uk

9 June
Café Science Extra - Dundee's search for drugs to cure neglected tropical diseases
6pm, Dundee Science Centre, Greenmarket
Dr Laura Cleghorn, a chemist working at the Drug Discovery Unit, will talk about aspects of her work in the search for a new a new drug for the treatment of diseases that are often ignored by large pharmaceutical companies. Doors Open 5:30pm. Free entry. Not ticketed.

sense of achievement

Pioneer: Professor Dario Alessi

Professor Dario Alessi is carrying out pioneering research into a class of enzyme termed Kinases, leading to an understanding of conditions such as hypertension and early onset of Parkinson's disease, at the University of Dundee.



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