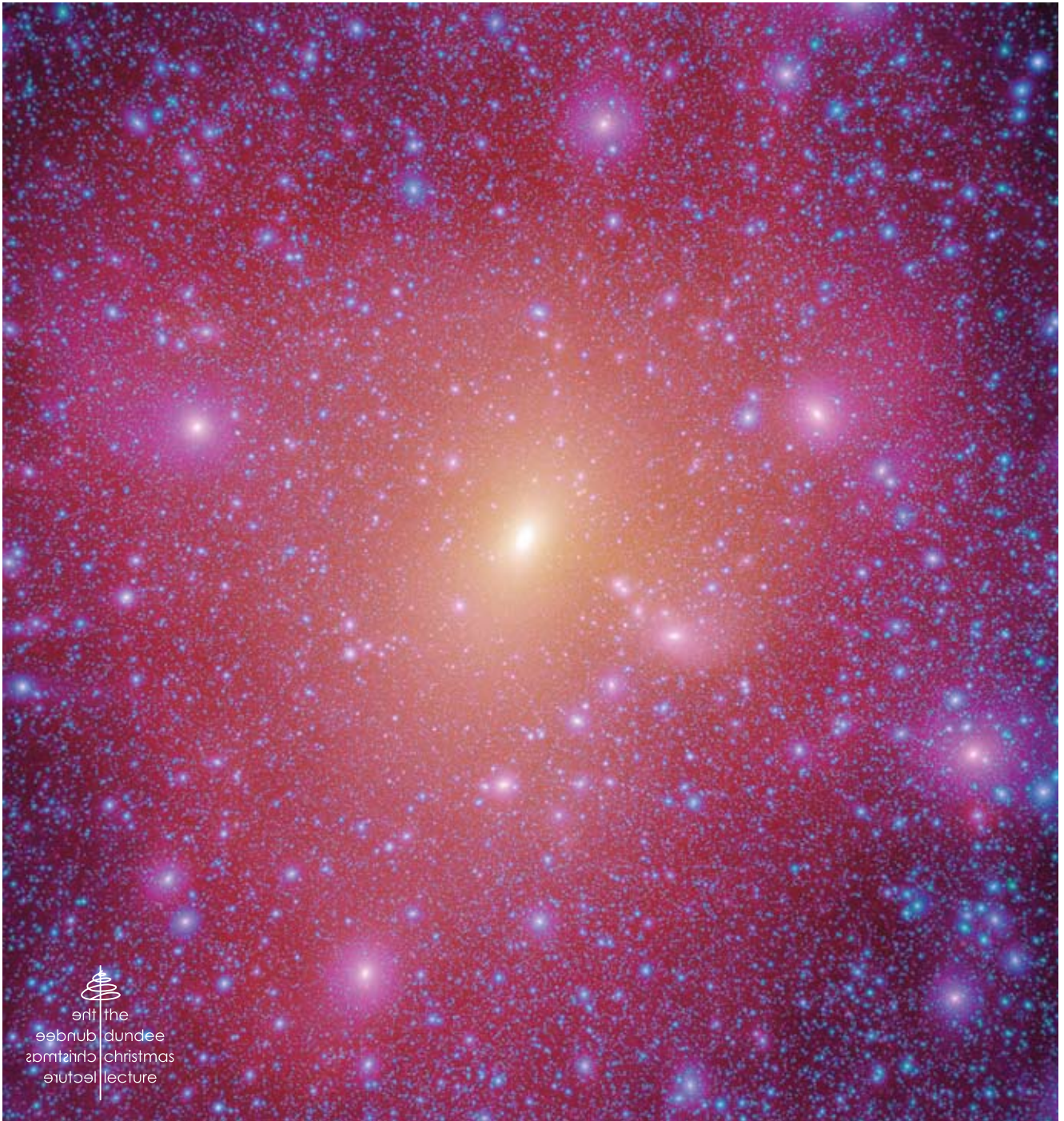


# c n t a c t



The magazine of the University of Dundee • December 08



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Casting light on dark matter...

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## from the principal...

**Despite the unprecedented success of Team GB at the Beijing Olympics, seismic changes in the US political landscape and the human cost of war in Iraq and Afghanistan, 2008 will probably be remembered for the breakdown of the world's financial institutions and the beginning of a global recession.**

In the current financial environment, the University must develop the capacity to navigate difficult conditions – holding fast to its strategic aims of enhancing education and research and making the case for investment based on the success of higher education as an engine for economic and social development. There will also be local factors in play – including changes in the age structure of the population, a new RAE baseline and a renewed emphasis on the quality of the student experience.

There is no doubting the relevance and impact of the University and the progress that is being made in promoting translational medicine, developing new approaches to professional education, stimulating new ideas and technologies at the boundaries between disciplines and focusing on the challenges of the 21st Century. Looking forward we need to build on these themes by responding positively to national and local trends, for example:

- changes in demography – by developing more flexible provision, encouraging more part time study and remodelling curricula to address highly differentiated student requirements
- student demand for technology assisted learning – by developing a system capable of meeting a wide range of students' needs perhaps drawing on the success of the VLE, the local capabilities on e-learning and opportunities for new alliances at national and international level
- the premium on 'high level skills' and innovation – by supporting collaboration across disciplines, widening our approach to translational research, encouraging more movement of people and ideas between higher education and industry and treating intellectual assets more like capital – something to be invested or shared to achieve a return, not tightly controlled or hoarded
- more enlightened approaches to internationalisation – by building enduring education and research partnerships, encouraging staff and student exchanges and creating and sharing knowledge which is relevant to global health issues, climate change and energy, food and water security.

In recent years the University has combined great resilience with the capacity to change to meet new circumstances. These strengths will stand us in good stead for the future.

Finally, I would like to thank Dr David Duncan who steps down as University Secretary towards the end of December for his unfailing leadership and the hugely important contributions he has made to the life and work of the University over the past seven years. He leaves with the appreciation of everyone in the University community. We wish him well in his new post at the University of York and we send thanks and good wishes to Fiona and the children Nina and Bobby.

I wish all students and staff a good Christmas break and continued success in 2009.

**Alan Langlands • Principal and Vice-Chancellor**

# £3.5m for Centre for Molecular Medicine

**Professor Irene Leigh, Head of the College of Medicine, Dentistry and Nursing, is the recipient of £3.5 million under the Wellcome Trust's Capital Awards in Biomedical Sciences Initiative.**

The funding will be used to develop a Centre for Molecular Medicine, based at Ninewells Hospital. It will operate at the interface between basic and clinical science and will be sited on the top floor of the university's recently opened Clinical Research Centre. The award complements recent funding success for the university including the new Wellcome Trust Centre for Gene Regulation and Expression.

'This is a key grant for us in that it allows us to build another link in the chain of excellence in Dundee leading from laboratory-based research to clinical practice,' says Professor Leigh.

'This area of translational medicine is increasingly important and the support of the Wellcome Trust in establishing this Centre for Molecular Medicine only adds to our capability to deliver exciting results.'

Launched in 2007, the £30 million Wellcome Trust initiative provides funding of over £1 million to successful applicants for large scale projects - either new builds or refurbishments - in partnership with the host institution. The scheme is intended to facilitate leading-edge biomedical research that would not otherwise have been possible.

'Researchers need the best facilities and most up-to-date technology in order to carry out world class research,' says Dr Mark Walport, Director of the Wellcome Trust. 'The Capital Awards will provide the necessary infrastructure for some of the best scientists in the UK.'



# International honour for Dundee professor

**Professor Grahame Hardie, Head of the Division of Molecular Physiology in the College of Life Sciences, has been selected for the prestigious 2008 Rolf Luft Award.**

The award was created in 2000 in honour of Professor Rolf Luft, Sweden's most famous endocrinologist, and is awarded by the famed Karolinska Institute and the Rolf Luft Foundation for Diabetes Research.

The award recognises Professor Hardie's discovery over twenty years ago of an enzyme called AMPK, and his subsequent development of the concept that it acts as the key sensor of energy status in living cells and organisms. His work has provided new insights into conditions such as obesity, type 2 diabetes and cancer.

'I am absolutely delighted to be given the Rolf Luft Award,' said Professor Hardie, who holds a Chair in Cellular Signalling. 'Looking at the list of previous winners of this prize it is a real honour to be included in their company.'

'It also pleasing to receive this particular prize because the work we do is relevant to some of the key findings made by Rolf Luft. He discovered the first human disorder (Luft's disease) linked to defects in mitochondria, which generate the universal carrier of energy (ATP) within cells. We have shown that it is the AMPK system that monitors the production of ATP and mounts a response if it is compromised, as would happen in Luft's disease.'

'Sadly, Rolf Luft died last year and I never met him, but I'm sure he would have been very interested in our research in Dundee.'

Professor Hardie came to Dundee in 1976 to work as a postdoctoral fellow. He was appointed Professor of Cellular Signalling in 1994 and assumed leadership of the Division of Molecular Physiology in 2004.

This is the second time in three years a Dundee academic has received the prize - Professor Sir Philip Cohen having been given the award in 2006.

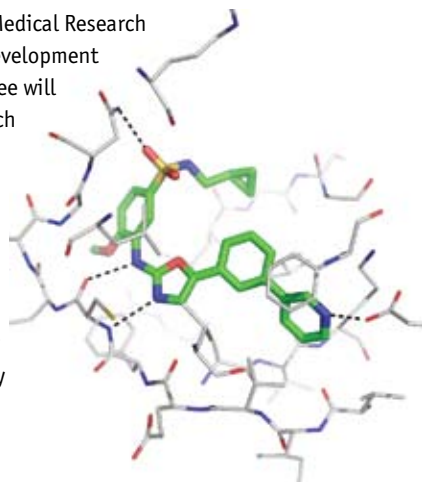
# MRC Unit at Dundee to establish national centre

**The Medical Research Council Protein Phosphorylation Unit at the University has been awarded almost £1million to set up the UK's National Centre for Protein Kinase Profiling, a unique service which will widen academic access to one of the fastest developing areas of the pharmaceutical industry.**

Protein kinases are the largest family of enzymes encoded by the human genome and in recent years have become the pharmaceutical industry's most important class of drug targets in the quest to develop new treatments for major diseases such as cancer.

This new award from the Medical Research Council's Strategy Development Group to the Unit in Dundee will enable academic research teams around the world to access kinase profiling services which have previously only been widely available in the commercial sector and either unsuitable or too expensive for many academics to use.

Image © Dr Ruth Brenk



'A major challenge in the development of new treatments is to make drugs that can be specifically targeted to selectively suppress the activity of one or at most a few of the 500 protein kinases encoded by the human genome,' said Professor Sir Philip Cohen, Director of the MRC-PPU at Dundee.

'Currently, some 30% of the research and development budget of the pharmaceutical industry is focused on this area of kinase profiling, and in cancer R&D the figure is even higher at around 50%.

'In recent years, many academic centres have started to set up their own drug discovery programmes, many of which are also aimed at developing specific inhibitors of protein kinases. These academic centres have great need to gain access to kinase profiling services but those offered commercially are tailored to the needs of the pharmaceutical industry and too expensive for most academics to use.

'With this new funding the Protein Phosphorylation Unit can make our kinase profiling service widely available to the academic community at a reasonable cost.'

The grant, totalling £989,000, will provide the salaries of three technical staff, and a synthetic organic chemist for five years, plus equipment and a consumables budget that will enable the size of the current panel to be expanded from 80 to 100 kinases.

## Dundee leads fight against "superbugs"

**Scientists in Scotland, Sweden and Germany - led by researchers at Dundee - have been awarded a €4.6 million (approx £3.8m) grant from the European Union to develop new anti-infective drugs to fight some of the most difficult to treat bacterial 'superbugs'.**

The AEROPATH project aims to find new drugs to combat bacterial infections, which are a particular problem for people suffering from cystic fibrosis, for burns victims, and patients whose immune system's ability to fight infectious disease is compromised, for example by chemotherapy during cancer treatment.

These life-threatening and difficult to treat infections are caused by Gram-negative bacteria, often called 'superbugs' because they are resistant to common antibiotics.

Scientists from the College of Life Sciences are leading the research partnership, which also includes the University of St Andrews, the Karolinska Institutet in Sweden, and two German-based companies, Lionex and MFD Diagnostics.

The project is funded by the European Union, through the FP7 programme for research and innovation.

'These bacterial species are highly resistant to most current drugs,' said Professor Bill Hunter, Professor of Structural Biology in the Division of Biological Chemistry and Drug Discovery, who is coordinating the research programme. 'What we are doing in this project is seeking out chemicals which can underpin future antibiotic drug development to combat these dangerous bacteria.'

Professor Hunter explained that the bacteria prospered in conditions where the human immune system is weakened or human tissue was not properly functioning - factors which are common in conditions like Cystic Fibrosis and in instances of burns injuries.

The project will fund eight new posts for post-doctoral researchers across the partner institutions.

The research project is designed to exploit genome data, identify and characterise new therapeutic targets and, by modern computational and high-throughput methods, seek out chemicals that kill the bacteria.

# Baby buggies may undermine child development

**The most popular style of baby buggies - those that face away from the pusher - may be undermining children's development, according to a study carried out by Dr Suzanne Zeedyk, senior lecturer at the University's School of Psychology.**

The research carried out for the Talk to Your Baby Early language Campaign run by the National Literacy Trust, found that children in such buggies are significantly less likely to talk, laugh, and interact with their parents, than are those in buggies that face the pusher.

Dr Zeedyk's research involved an observational study of more than 2,722 parent-infant pairs across the country and a smaller experimental study of 20 babies in Dundee.

Both research projects found that 62% of all children observed were travelling in away-facing buggies, with the rate even higher, at 86%, between the ages of one and two years.

Parents using face-to-face buggies were twice as likely to be talking to their baby (25% compared to 11%) and mothers and infants, who had a chance in the experimental study to travel in both types of buggies, laughed more frequently with face-to-face buggies. Only one baby in the group of 20 studied laughed during the away-facing journey, while half laughed during the face-to-face journey.

Babies' average heart rates fell slightly when placed in a toward-facing buggy, and babies were also twice as likely to fall asleep in this orientation, both of which could be taken as possible indicators of reduced stress levels

"Even as a developmental psychologist, this was not an issue I had previously thought about, and I was surprised to find that no other scientists had studied it either," said Dr Zeedyk.

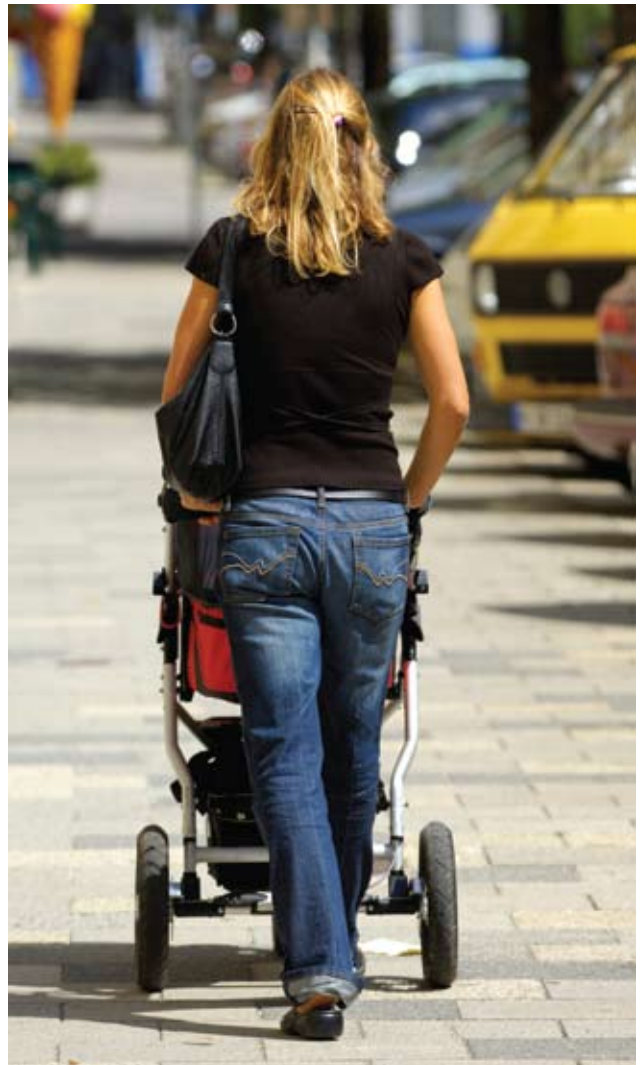
"Neuroscience has helped us to learn how important social interaction during the early years is for children's brain development. If babies are spending significant amounts of time in a baby buggy that undermines their ability to communicate easily with their parent, at an age when the brain is developing more than it will ever again in life then this has to impact negatively on their development.

"Our experimental study showed that, simply by turning the buggy around, parents' rate of talking to their baby doubled. I had also not anticipated that such a high percentage of babies in face-to-face buggies would be sleeping - 52%, against only 27% in away facing buggies. It was a complete surprise. This is significant as you are more likely to sleep when you are feeling relaxed and safe.

"Our data suggests that for many babies today, life in a buggy is emotionally impoverished and possibly stressful. Stressed babies grow into anxious adults. It looks, from our results, that it is time that we began carrying out larger scale research on this issue. Parents deserve to be able to make informed choices as to how to best promote their children's emotional, physical, and neurological development."

Liz Attenborough, Manager of the Talk To Your Baby campaign, said: "Talk To Your Baby is campaigning for manufacturers to make sociable, face-to-face buggies for toddlers more affordable and to increase parental awareness of the importance of talking to their baby. This research shows that something as seemingly ordinary as going out with a child in a buggy where adult and child are face-to-face can be a valuable opportunity to spend time talking together in a way that is stress-free for the child. Parents with a two-way facing buggy should use the sociable face-to-face option as standard."

Laura Barbour, Sutton Trust, commented, "The Sutton Trust hopes that buggy manufacturers will look closely at this research, which suggests that face-to-face models improve communication at a very early stage. The problem is that at present these cost a minimum of £200 and are therefore too expensive for many families. The Sutton Trust, which campaigns for improved social mobility, would like to see options available in every price range so that all parents can have greater choice."



## Professor Thomas W Wälde 1949-2008

**Professor Philip Andrews-Speed, Chair of Energy Policy and Director of the Centre for Energy, Petroleum and Mineral Law and Policy, pays tribute to Professor Thomas W Wälde who died in October following an accident.**

Professor Thomas W. Wälde was a leading scholar and practitioner in the field of international energy and resources law. Though based in a small village outside St Andrews for the last 15 years, his reach and influence has been global. As he explained in a recording made only one year ago, his aim in life was to understand “what lay underneath the emperor’s clothes” and to reveal and explain this truth, however unpalatable it might be to listeners. His was not the world of political correctness nor of desires to please. The world of energy and mineral resources is replete with vested interests and empty rhetoric, with shady deals and plain corruption. Thomas Wälde did not shirk from revealing such unpalatable truths. But at the same time, his objective was to support coherent and just policy making for the good of all, and to support those who wished to deepen their understanding of these challenging issues.

Professor Wälde excelled in developing and deepening international understanding of critical legal and policy issues relating to energy and natural resources. He achieved this in his roles as an adviser to governments and companies, as a mediator and arbitrator, as an academic researcher into the critical issues of the day, as an educator, and through his leadership of the Centre for Energy, Petroleum and Mineral Law and Policy at the University of Dundee.

Born in 1949, he grew up in Heidelberg and went to school at the Kurfuerst-Friedrich-Gymnasium. He was from very much South-West German families. His great uncle, Reinhold Maier, was the first Ministerpraesident of Baden-Wuerttemberg. Another uncle, Heinz Maier-Leibnitz, was a well known German professor of nuclear physics and President of the German National Science Foundation. Wälde studied law, in the traditional German way, at the Universities of Heidelberg, Lausanne-Geneva, Berlin and Frankfurt.

In 1980 he joined the UN and later became United Nations Interregional Adviser on international investment policy and petroleum/mineral legislation. He advised over 60 governments on legislative reform and contract negotiations with international investors.

He was also, from 1981 to 1983, UN investigator on occupation practices in Palestinian territories and was responsible for the Secretary General’s reports on “Permanent Sovereignty over Natural Resources” and on the Permanent Sovereignty in Occupied Palestinian Territories. He initiated the UN project for environmental guidelines in mining and was chair of the drafting group that produced the first version of the “Berlin Guidelines” in 1990.

In 1991 he joined the University of Dundee as Director of the Centre for Energy, Petroleum and Mineral Law and Policy. He was later awarded by the European Commission a Jean-Monnet Chair in European Economic and Energy Law. Under his leadership the Centre underwent a period of spectacular growth and is now a major international institution in its field for graduate studies and research. To a great extent he developed this Centre in his own image, international and inter-disciplinary, combining academic excellence and professional relevance. Many of its alumni hold leading positions in governments and major institutions influencing policy and practice at the highest level throughout the world.

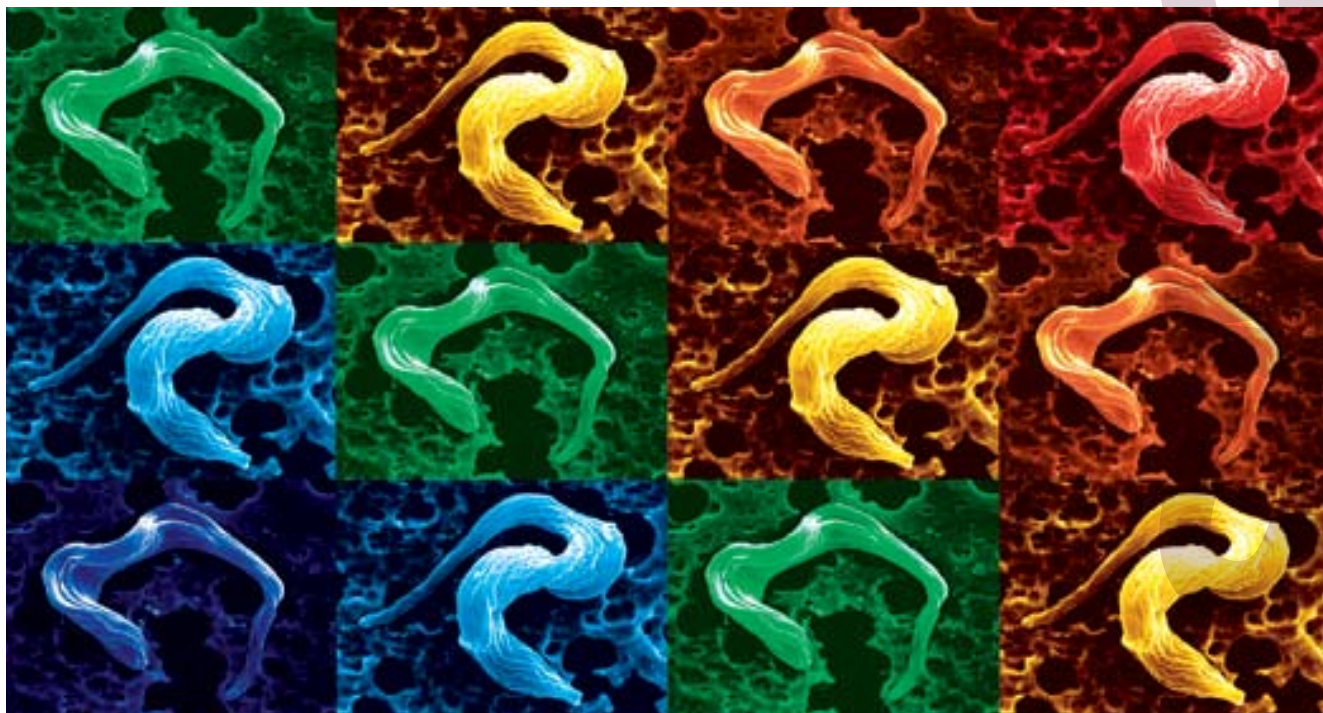
Whilst at the University of Dundee, Wälde used and extended his global networks to develop an extraordinary virtual campus of leading practitioners and scholars around the world, who became part of the Dundee intellectual family, in many cases without ever having set foot in Scotland. For those who knew him personally, he was an inspirational mentor and leader who always had time to guide and advise.

After stepping down from the post of Director in 2001, he maintained his role as a teacher and expanded his activities in the field of dispute resolution and arbitration, where he quickly enhanced his already formidable reputation.

Thomas Wälde died on 11th October in an accident at his family’s holiday home in the south of France. He is survived by his first wife, Gabriella, and their son Max, and by his second wife, Charlotte, their daughter Olivia and her children Kirsty and Michael.

\* A memorial service for Professor Wälde will be held in the Chaplaincy on 12 December at 4pm.

# £1.7m to strip the coat from African Sleeping Sickness



**Researchers in the College of Life Sciences have been granted £1.7million by the Wellcome Trust to try and find the chink in the armour of one of the world's most neglected tropical diseases.**

Professors Mike Ferguson and Ian Gilbert are investigating how African Sleeping Sickness can be stopped by examining how the parasite which transmits the disease builds its vital protective coat.

'African Sleeping Sickness is transmitted by a parasite called a trypanosome,' explained Professor Ferguson. 'What we are looking at is how that parasite builds its surface coat, a sort of protective shell, and how we can stop that.'

'This coat helps protect the parasite against the host immune system, which then allows the disease to take hold. We want to understand how the parasite builds the components of the coat so that we can then devise new modes of attack to weaken it.'

'The hope is that the protective coat will also be the trypanosome's Achilles heel.'

The disease kills at least 50,000 people per year in sub-Saharan Africa, with hundreds of thousands more infected. There is no current vaccine to treat the disease and current drugs are extremely toxic and difficult to administer.

Dundee is uniquely placed in the academic world in being able to follow the whole process through from making the basic molecular findings that may unlock the assembly of the coat, to testing these as drug targets in the Drug Discovery Unit, which was created in 2006 with the express intention of tackling neglected diseases.

'There is very little interest in diseases like African Sleeping Sickness within the pharmaceutical industry, primarily because there is not likely to be much money in finding and developing a cure for the very poor,' said Professor Ferguson.

'That is why we established our unit here, so that we can identify drug targets and test them thoroughly and hopefully find new drugs which can help us get rid of these terribly debilitating diseases.'

# Top engineering award for former Principal

**Former University Principal and Vice Chancellor Dr Adam Neville has been awarded one of the Royal Academy of Engineering's top honours after devoting nearly 60 years to civil and structural engineering all over the world.**

The Sustained Achievement Medal is awarded to engineers whose achievements have had a profound impact upon their discipline. Dr Neville, who served as Principal between 1978 and 1987, is widely respected internationally for his expertise on concrete structures.

His first book *Properties of Concrete*, published in 1963, has been translated into 13 languages and has sold over half a million copies. In many parts of the world the book is known familiarly as "Neville's concrete bible". In all he has written ten books and over 250 technical papers and has taught at universities in Nigeria, Canada and the UK.

Whilst highly regarded academically, Dr Neville's work has also had a profound influence on engineering in practice. In 1963, after a number of experimental investigations, he published a major paper reviewing laboratory and field behaviour of high alumina cement concrete (HAC) and concluded that, under British exposure conditions, structural members are likely to become unsafe after 10 to 20 years.

The paper provoked a virulent reaction from the manufacturers of pre-cast HAC beams as well as the cement manufacturers.



Some years later, three major roof collapses in London vindicated his findings and Dr Neville was invited to serve on the Buildings Regulations Advisory Committee dealing with HAC.

He also served on the Council of the Institution of Structural Engineers and as Vice President of the Royal Academy of Engineering 1992-95.

"I am honoured to receive this award from the Academy," said Dr Neville. "My work has given me a chance to make numerous good friends, literally the world over. I think that that has been the greatest 'side-effect' of my 'life in concrete'."

# Study reveals women risking lives

**Breast cancer patients are risking their lives by failing to take the drugs they are prescribed, according to researchers at the School of Medicine.**

The study, funded by the Medical Research Council and Breast Cancer Research Scotland found that half of the women failed to finish a five-year course of tamoxifen and one in five regularly forget to take a tablet.

Experts already know that taking tamoxifen for five years increases survival chances and the new research reveals that women who miss at least one tablet every five days have a 10 per cent greater risk of dying.

Researchers used the prescription records of more than 2000 women to see how many did not complete the standard treatment of a tamoxifen tablet every day and linked this to other health records to see if they were more likely to die.

The results show that 10% of women followed for one year stopped taking tamoxifen, 19% of the women followed for at least two years had stopped, 32% of the women followed for three and a half years had stopped and a total of 51% of women followed for five or more years had stopped taking the drug.

The study also showed that younger women were more likely to stop taking the medication early but there was no difference in the rich or poorer groups of women.

Professor Alastair Thompson, based at Ninewells Hospital and the senior breast specialist on the study, said: 'This study paints a worrying picture. Tamoxifen is prescribed for five years to offer the best chance of surviving breast cancer, and not taking the tablets means that many women could be disadvantaged.'

"Doctors and nurses should encourage patients to keep taking their prescribed medications, ensure side effects are managed as best as possible and thus get the maximum benefit from the medication."

The research was published in the *British Journal of Cancer*.



# Labour of love nets student midwife top award

**Third year midwifery student Paula Ringsell has been named Student Midwife of the Year by the British Journal of Midwifery.**

Paula was nominated for the award by lecturing staff at the School of Nursing who praised her passion for the profession and her role in creating a local support network for pregnant women and their families.

Paula set up the support group after hearing about the BirthChoices website created by a midwife and mother in Glasgow.

"I realised that they had the same philosophy as me, that women deserve to have evidence-based information regarding all aspects of pregnancy and birth made available to them," she explained.

"I visited the group and thought it was a perfect forum for women to come and access information whilst sharing information with each other. I was asked to start a support group in Dundee and was more than happy to do so."

Paula's interest in midwifery came as a result of her own experience of birth and motherhood.

"Since having my daughter in 1991 I have had a lot of dealings with the maternity services.

"I very much admired and appreciated the compassion of the midwives and just knew it was something I wanted to do.

"I worked in the Housing Benefits Department for 10 years and then became a childminder after the birth of my youngest son before embarking upon my career as a midwife.

"The most enjoyable aspect of the job is having the privilege of being part of such an important time in a woman's life. The midwifery course here is split equally between theory and practical placement time and I love the interaction that I have been able to have with women throughout the course. I love what I do so it is a wonderful bonus to win an award like this."

Paula was presented with her award at a ceremony in Birmingham in October. More information on the support group she has set up can be obtained via the website:

[www.birthchoices.co.uk/groupdundee.html](http://www.birthchoices.co.uk/groupdundee.html)



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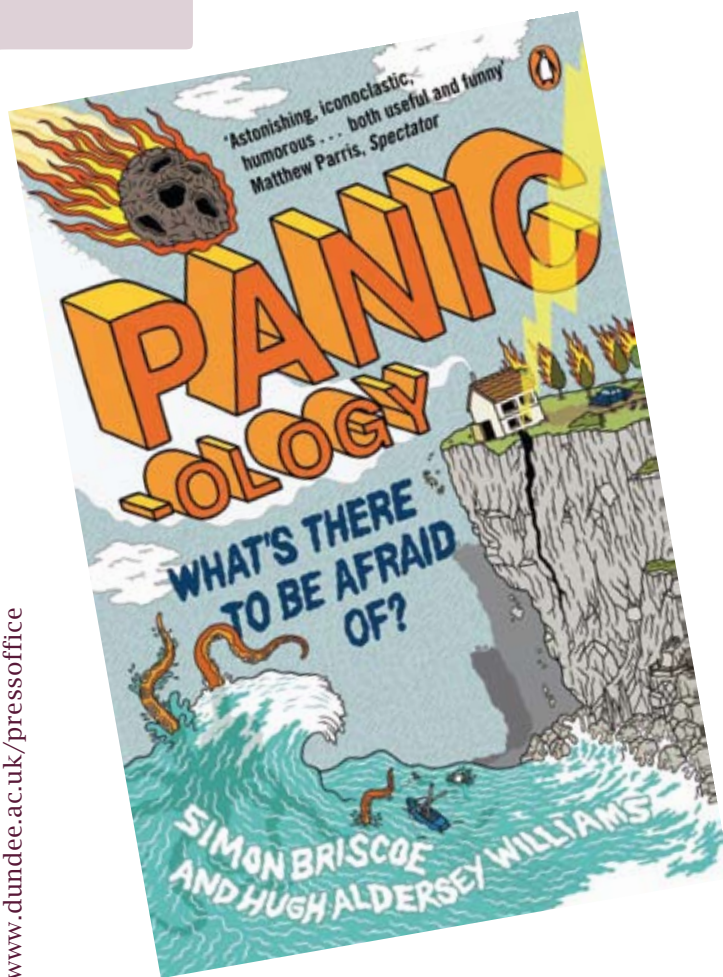
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Telephone - 01382 647177 | Fax - 01382 647197 | Email - [enquiries@westpark.co.uk](mailto:enquiries@westpark.co.uk)

# SELS celebrates 85 fascinating years

Media scare stories, the aftermath of Barack Obama's historic election as US President and an exhilarating history of design will all be explored in the University's Saturday Evening Lecture Series in 2009.

Celebrating its 85th anniversary this year the lecture series, Scotland's longest running public lecture series, will kick off at the end of January with a talk by **Deyan Sudjic**, Director of the Design Museum, visiting professor at the Royal College of Art and former architecture critic for the Observer.

In *The Language of Things* on **31 January 2009** Sudjic will introduce the audience to the world's most original innovators and reveal the hidden meanings in their work. From the opulent excesses of the catwalk, or the technical brilliance of a laptop computer, to the subtle refinement of a desk lamp, he'll show how we can be manipulated and seduced by our possessions



www.dundee.ac.uk/pressoffice

**SATURDAY  
EVENING  
LECTURE  
SERIES** 09  
**85th ANNIVERSARY**

On **28 February**, **Professor Anne Anderson**, Vice-Principal and Head of College of Art, Science and Engineering will look at the controversial issue of privacy and new technology. We all have access to more computing and communication devices than George Orwell's Big Brother could dream about. Her talk *Is Privacy Dead in the Digital Age* will ask how we can deploy these devices to improve our lives yet protect our privacy.

Author and journalist **Hugh Aldersey-Williams** will attempt to bring some sanity to a world apparently at risk of imminent destruction in *The mad science of media scare stories* on **7th March**.

He will look at the way the media assails us with stories of our imminent destruction from bird flu to melting icecaps and ask why do they do it to us, why do we lap it up, what harm - or good - does this do to society, and how can we learn to deal more rationally with the world of risk?

Later that same month **Christopher Somerville**, author of *Coast to Coast: The Journey Continues* which accompanied the BBC series, will be interviewed by his sister and renowned broadcaster **Julia Somerville** about his years of experiences walking the country lanes, back hills and wildernesses of Britain and Ireland. *Britain and Ireland's Wild Places, in Conversation* with Julia Somerville will take place on **14th March 2008**.

On **4 April**, **Yasmin Alibhai-Brown** will be revealing how Shepherd's Pie can be enhanced by chilli and the addition of ketchup to a curry can be life-changing in her talk entitled *The Settlers Cookbook: From India to Uganda to Britain*, a personal history through food.

Yasmin Alibhai-Brown's family was part of the mass exodus from India to East Africa during the height of British expansion. In 1972, they were one of the many families expelled from Uganda by Idi Amin. She now lives in the UK and the food she cooks combines the traditions and tastes of her family's hybrid history.

Political heavy weight and NBC News political analyst **Charlie Cook** will give his assessment of the US Presidential election campaign, the first 100 days in office of the new Presidency and what it means for America and the rest of the world in his lecture on **25 April**.

*The New US Presidency - 100 Days after Inauguration* is being held in association with the Graduates Council Discovery lecture.

All the SELS lectures will take place at the Dalhousie Building on the main campus on the corner of Old Hawkhill and Hunter Street at 6pm. Tickets are available from Tower reception, Borders Books and the online store. For more information visit the events website at: [www.dundee.ac.uk/externalrelations/events/sels/2009/sels2009.html](http://www.dundee.ac.uk/externalrelations/events/sels/2009/sels2009.html)

# £1.65m improvements to sports facilities

**Two new artificial pitches at Riverside Sports Ground are to be created as part of a £1.65million improvement to the University's existing sports facilities.**

Changing accommodation and the grass pitches at Riverside will also be upgraded as part of the work which will also see the tennis courts on the main campus resurfaced and upgraded to competition standard.

The investment follows the completion of the £4million extension to the Institute of Sports and Exercise (ISE), which has provided the University with some of the most extensive and modern facilities of their kind in the region, including a state-of-the-art strength and conditioning centre.

"This additional investment by the University will make a real difference to our student sports clubs by giving them excellent facilities on which to play and practice," said Brian Ewing, Director of ISE.

"In particular the creation of the floodlit artificial pitches at Riverside fills a need not just for the University but for the wider community, where there is an identified need for more surfaces just like this.

"Together with the new facilities we have provided on the main campus, this investment ensures that students at Dundee will have access to some of the finest sports provision in the country. One of the artificial pitches will be a sand-dressed surface to accommodate the University Hockey Club and the training and competition requirements of the local hockey community.

The other pitch will have a state-of-the-art '3G' FIFA approved artificial surface and, as well as providing an outstanding surface for football, will also provide an ideal training facility for rugby, Gaelic sports and lacrosse. This surface will be the only one of its kind in the City and surrounding area and will add significantly to the overall facility provision in the region.

"The Sports Union is delighted that the University have approved the upgrade in facilities at Riverside and the campus tennis courts," said student Paul Blake, President of the Sports Union at the University. The Sports Union is working with ISE to create a culture of Sport and the upgrade in facilities will serve to enhance the student experience and bring a sense of pride in representing the University of Dundee."

The quality of the facilities at ISE has already been recognised with the London 2012 Organising Committee making the University an accredited London 2012 Pre-Games Training Venue.

The advertisement features a light blue background with white and purple snowflakes, a stylized sun with rays, and a large white handprint graphic. The 'ise' logo is in a dark purple font with a swoosh above it. The text is in a dark purple, sans-serif font. At the bottom, there is a dark purple banner with white text and snowflake icons.

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# Dundee's own water leader

**In little over ten years Alistair Rieu-Clarke has gone from undergraduate student at the School of Law to internationally recognised water law expert whose knowledge and opinion is sought after by domestic and overseas governments.**

He has co-authored a definitive guide to the UN Watercourses Convention, one of the most important conventions relating to water law and is playing a key role in three European Community funded projects worth around 900,000 Euros. With his additional research project work, his income already passes the £1 million mark.

Based at the UNESCO Centre for Water Law, Policy and Science in the University's Peters Building, Dr Rieu-Clarke is keen to attribute his success to the reputation of the centre and its staff.



"The Dundee Centre has a significant international profile and the niche developed in water law, policy and science definitely gives us an advantage particularly when it comes to attracting funding for various projects," he said.

However, Professor Patricia Wouters, Director of the Centre, has no doubt that the young senior lecturer and researcher is very much master of his own fortune.

"He is really moving from strength to strength," she insists. "He's already having an international impact with his research and moves around the world advising on international water law policy. The UK government through the UK Department for International Development has just commissioned Alistair to provide advice on transboundary watercourses.

"Alistair provided the intellectual input for *Everything You Need to Know about the UN Watercourses Convention*, a global policy document that was launched by the World Wildlife Fund at World Water Week in Stockholm in August. Ministers of water and stakeholders from all over the world were there – this is such a hot topic.

"He has also secured funding for three European Community framework projects. EU framework project are highly competitive – they have been described as "the best of the best" – and so to get one is fantastic, but to get three is very impressive. He has an amazing future ahead of him."

The three EU projects Dr Rieu-Clarke is working on are all focussed on international water resource management, a subject of critical importance when it is considered that more than half of the world's population live in river basins shared by more than one country.

A lack of cooperation between nations and inadequate water management, now exacerbated by climate change and population growth, can lead to reduced living standards, environmental problems and potential conflict.

Dr Rieu-Clarke, who graduated with an LLB in 1996 before completing a Masters in Natural Resource Law and Policy, is hoping the projects will highlight the advantages of greater cooperation and lead to a more effective and fairer management of one of the world's most precious resources.

The three projects include Brahmawinn which began in 2006 with the aim of improving the capacity to carry out a harmonised integrated water resources management approach and to transfer that expertise to other parts of the world. Areas covered by the study include the Upper Danube River Basin in Europe and the Upper Brahmaputra River basin in South Asia.

The second study, which also began in 2006 is known as Striver and aims to develop interdisciplinary methods to assess and implement international water resources management. It focuses on case studies of four river basin areas in Norway, India, Spain and Portugal and Vietnam and Cambodia.

The third project Live Diverse is due to begin in February next year and will look at water and environmental issues in comparative national settings in India, South Africa, Costa Rica and Cambodia.

"There are two main research themes running through these projects," explained Dr Rieu-Clarke. "One is the integration of law, policy and science to ensure there is cooperation between people within the basins.

“The Dundee Centre has a significant international profile and the niche developed in water law, policy and science definitely gives us an advantage particularly when it comes to attracting funding for various projects”

“This is particularly true of the Striver project where we are trying to enhance. Dialogue. Such dialogue is crucial in areas such as the Sesan basin shared by Vietnam and Cambodia, where there is a clear recognition by both governments that cooperation needs to be strengthened and formalised.

“The second related theme is governance. I am working closely with Andrew Allan from the Dundee UNESCO centre, to devise and test a unique methodology to assess whether, firstly, the law within a particular river basin supports principles of good governance, and secondly, the extent to which such laws are being implemented on the ground.

“We’re hoping to take these themes further in the LiveDiverse project which is aimed at planning a sustainable livelihood and biodiversity.”

Although two of the EC projects are due to be completed next year Dr Rieu-Clark is convinced his work is far from over.

“International law is evolving and only about 40% of the world’s water resources are covered by treaties,” he said.

“Many of these are insufficient to meet future needs and pressures. There is a massive gap that needs to be addressed and as far as I can see there is a huge amount of work still to do

“We are very fortunate in Dundee to have our research team, including the new intake of seven water law PhDs. I am confident that in years to come we can make a significant impact for the better.”

## New water leaders begin studies

**The first PhD students destined to be the next generation of water law leaders have started their studies at the UNESCO Centre for Water Law, Policy and Science within the Postgraduate School of Management and Policy.**

The seven law graduates from seven different countries beat off intense competition from a 50-strong field of high-quality applicants to secure a place on the innovative “Water Law, Water Leaders” graduate programme.

The seven students are all already experienced water lawyers and researchers.

“These students are our first intake of water leaders,” said Centre Director Professor Patricia Wouters. “There is a water crisis in the world today and it is largely one of leadership. The aim of this programme is to tackle that leadership challenge and train the next generation of water leaders so they can take what they have learned here and put it into practice around the globe.”

**Mohamad Mova Al Afghani**, who graduated in law in Indonesia before completing a Masters degree in European Law in Germany, has been working as a lawyer in Indonesia.

**Ana Maria Daza Vargas** obtained her Law Degree in 1998 from the Bolivian Catholic University in Cochabamba, Bolivia. She has also completed a postgraduate course in Institutional Reform and a Masters in Law and Economics. She has worked as Legal Director of the Bolivian Regulatory System for Public Utilities.

**Bjørn Oliver Magsig** graduated with distinction in Business and Environmental Law from the University of Applied Sciences Trier, UC Birkenfeld (Germany) in 2006.

He has recently concluded his LLM in Environmental Law & Policy with distinction at the Centre for Energy, Petroleum and Mineral Law and Policy (CEPMLP).

**Dinara Ziganshina** from Uzbekistan earned her law degree from Tashkent State Institute of Law in 2001. Since 2003 she has served as a legal adviser for Scientific Information Centre of Interstate Commission for Water Coordination in Central Asia (SIC ICWC). Earlier this year she completed her Master of Laws in Environmental and Natural Resources Law at the University of Oregon.

**Hugo Tremblay** graduated from University of Montreal, Canada, in 2000 and was called to the Quebec Bar in 2001. After practising as a litigation lawyer for a few years, he completed an LL.M. with Honours in Environmental Law at Université Laval in 2007.

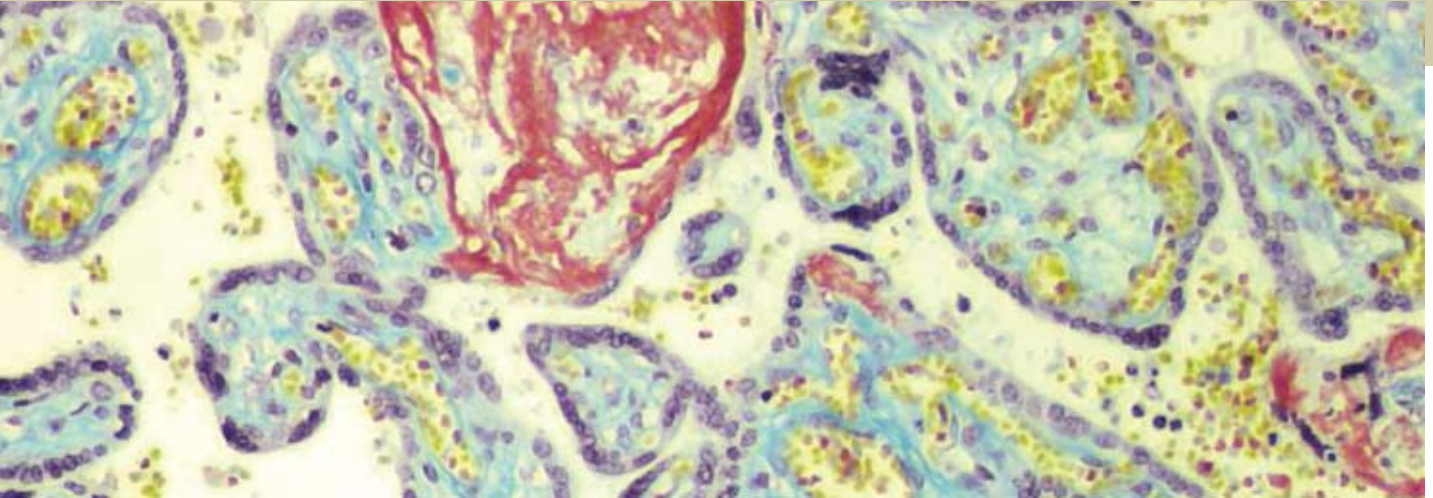
**Muso M Abseno** graduated with a law degree from Addis Ababa University in Ethiopia. He has held a number of senior posts including Head of Transboundary Rivers Affairs in the Ethiopian Ministry of Water Resources and head of the National Nile Basin Initiative Office for Ethiopia.

**Tran Tran** is a lawyer and experienced social researcher with a focus on the recognition and protection of Indigenous rights and interests. She has a Bachelor of Arts in Communication and Bachelor of Laws from the University of Technology, Sydney, Australia.

This new cohort of water law PhDs will soon be joined by new PhDs in water science. They are joined in the Water Leaders programme by several international students on the LLM in Water Governance and Conflict Management, an innovative double-degree programme between Dundee and IHE-Delft.

# Academic Pathology in Dundee: A Short History

David A. Levison, Professor of Pathology



To mark the UK's first ever National Pathology Week and the release of three new books by University academics and Dundee University Press devoted to pathology and forensics this edition of *Contact* is casting the spotlight on a subject that is often misunderstood and misrepresented.

Professor David Levison presents a concise history of pathology in Dundee from Robert Muir, the first holder of the Chair of Pathology, to the present day while Professor Sue Black, Professor of Anatomy and Forensic Anthropology at the Centre for Anatomy and Human Identification, highlights the stark contrast between fact and fiction in the world of forensics.

Finally the Department of Forensic and Medical Art provide a fascinating glimpse into the process of identification with a pictorial step by step guide to the process of reconstruction.

The first Holder of the Chair of Pathology in Dundee, then part of the University of St Andrews, was Robert Muir, later Sir Robert Muir. He was appointed in 1898. He wrote one of the first comprehensive textbooks of pathology, *Muir's Textbook of Pathology*, first published in 1924, and now in 2008 in its 14th edition with two of the present editors, Professors David Levison and Stewart Fleming, and many of the chapter authors, currently based in Dundee. Robert Muir was not to spend long in Dundee, and was recruited to lead the much larger Department of Pathology in Glasgow University in 1899.



He was succeeded by Lewis Robertson Sutherland who showed real stamina and served until 1930. Sutherland was succeeded in 1931 by one of the intellectual giants of medicine of the era, Daniel Fowler Cappell. Dan Cappell built up an Academic School of Pathology almost from zero when the University of St Andrews was small, relatively impecunious and not very interested in supporting the Medical School in Dundee. Cappell is recorded as having an "electrifying" effect on students.

Among his many achievements were the recognition of the cause and treatment of a common anaemia of pregnancy (macrocytic anaemia of pregnancy), the setting up of the first ever efficient blood transfusion service (using bottles from a local milk company and other equipment begged from various sources), and his major contributions to the understanding of rhesus factor in blood. He served as Dean of Medicine in Dundee from 1939, but was eventually lured to Glasgow in 1945.

Dan Cappell was succeeded in 1945 by Stewart McDonald who came with a glittering reputation following service in the army as a specialist pathologist in England, France and India, during which time he advanced knowledge on diverse diseases such as amoebic dysentery and leprosy, and also wrote army manuals on post-mortem methods and histological methods. Unfortunately he died tragically following a breakdown in 1946.

“We are very fortunate to have had the foundations of a successful Department laid by our eminent predecessors, and we trust they would approve of what we are currently doing.”

He was succeeded in 1947 by the one and only Alan Chalmers Lendrum. Alan Lendrum did not have the modern investigative tools of molecular biology or immunohistochemistry at his disposal to advance the understanding of disease processes, so he used what was available, namely dyes with components of different known molecular weights and electrical charges; with these he developed new stains to investigate pathogenetic mechanisms. One of his inventions, Martius Scarlet Blue (MSB – still widely used today), gave new insight on how blood vessels are damaged by high blood pressure and how the kidney is damaged in diabetes.

Alan Lendrum was fortunate to be able to draw on the technical skills of the likes of Douglas Fraser and Bill Slidders and others in developing these techniques. He was also blessed by the presence of other strong and innovative characters in his department such as Wallace Park, an expert on the pregnancy-related cancer, choriocarcinoma, which became the first cancer that could be regularly completely cured by single agent chemotherapy (Wallace Park's legacy continues to this day with Dundee acting as the national referral centre for this form of cancer), and Bill Guthrie whose enthusiasm for teaching was only matched by his interest in antique silver.

Alan Lendrum was succeeded in 1971 by John Swanson Beck. John was one of a group of leaders and luminaries in Scottish Pathology at the time who really established Scotland as a global centre of excellence for Pathology. He developed the Department in Dundee and set the foundation for its current strong position, and he managed to continue functioning as a major medical researcher. He established the discipline of Immunology in Dundee, and was one of the key contributors nationally and internationally to an understanding of autoimmunity focussing particularly on Thyroid Disease. He established the use of tissue sections as a means of demonstrating serum autoantibodies and highlighted the changes in the thymus gland in Graves' Disease. If he is remembered by one word it will be "enthusiasm". He communicated his enthusiasm for his work to everyone – colleagues, students, everyone.

John Beck was succeeded in 1993 by Peter Hall and that began the involvement of the Department in Molecular Biology. In 1995 I took over the Chairmanship of the Academic Department while Peter, devoted his energies principally towards research.

Appreciating the need for critical mass to be competitive in the current clinical academic environment, the Pathology Department became a key component of first the Department of Molecular and Cellular Pathology (embracing all of the Pathology subspecialities), then the Division of Pathology and Neuroscience, and now the Division of Medical Sciences.

In 2000 Peter Hall moved to the Chair of Pathology in Belfast and was replaced by Stewart Fleming. Stewart took over the Headship of Academic Pathology when I became Dean, and subsequently President of the Pathological Society of Great Britain and Ireland. Under Stewart's leadership the "Department", though the smallest Teaching Hospital Pathology Department in Scotland, has become the most academically active with more academic trainees engaged in research and undertaking higher degrees than in any other Scottish Medical School.

The increased interest in molecular aspects of disease, begun by Peter and developed by Stewart, has facilitated new collaborations with groups elsewhere in the University, especially in the College of Life Sciences.

Current research topics in which the Department is involved include skin diseases, renal cancer, lymphomas, colorectal cancer and breast cancer. This research work is only possible because of the close and harmonious working relationship which currently exists between the NHS Diagnostic Histopathology Department and the Academic Department of Pathology, and individuals such as NHS Consultant Frank Carey who leads pathology research on the new UK-wide bowel cancer screening programme, and holds an honorary Chair with the University.

We are very fortunate to have had the foundations of a successful Department laid by our eminent predecessors, and we trust they would approve of what we are currently doing.

“The “Department”, though the smallest Teaching Hospital Pathology Department in Scotland, has become the most academically active with more academic trainees engaged in research and undertaking higher degrees than in any other Scottish Medical School.”

# Sifting fact from fiction



**Professor Sue Black OBE, FRSE, Professor of Anatomy and Forensic Anthropology at the Centre for Anatomy and Human Identification within the College of Life Sciences, reveals the reality of life in the front line of forensic anthropology and buries some of the myths surrounding this field of science so often misrepresented by the media.**

Few disciplines have suffered as much from the intrusion of popular media culture as forensic anthropology. From the smiling skull uncovered for Taggart or reconstructed for Morse to the heroines of Kathy Reichs and Patricia Cornwell. Every now and again we have to even stand up to Amanda Burton and good old Quincy. The public have now been admitted into our isolated academic world and sometimes it is difficult to live up to their expectations.

So what is forensic anthropology? One curmudgeonly Sergeant was overheard to comment – ‘What the bl\*\*y h\*ll do we want an anthropologist for? There are no tribes still to be found in Glasgow!’ Some would say that the statement is up for debate but it is the frequent misconception that forensic anthropology must deal with long lost peoples from unknown civilisations, isolated somewhere up an equatorial rain forest. The other misconception is that it is a subject that just deals with dry old bones. Both are equally misinformed.

The word forensic is derived from the Latin ‘forensis’ meaning ‘pertaining to the court’ and anthropology literally means the study of man.

Therefore by definition, forensic anthropology is the study of man for the purposes of informing the court. Whilst the discipline operates to assist the investigative forces its ultimate lord and master is the courts of justice. The practitioners of this subject are expert witnesses whose testimony in court carries considerable weight and therefore their training must be intensive and lengthy.

Within the UK, forensic anthropologists assist the investigative forces in the identification of the deceased. The victim may recently have passed from this world and be a relatively intact corpse or it may show significant decomposition or indeed be skeletal or fragmented in its presentation. The forensic anthropologist must be able to carry out their work regardless of the manner in which the body is presented.

Our prime function is not to determine the cause or manner of the death as that is the remit of the forensic pathologist, ours is to determine the identity of the deceased. The remit of the job has expanded in the last 10-15 years as we are more frequently asked to assist the international community in the investigation of war crimes, abuses of human rights and humanitarian repatriation.



The mass graves of Rwanda, Yugoslavia and Iraq require our assistance as much as the disasters of the World Trade Centre, London bombing and the Madrid plane crash. Wherever the deceased require to be identified so this has become synonymous with the world of forensic anthropology.

But as security has become a matter of not only personal but also national and international importance so forensic anthropology has expanded into the realms of identity verification in the living. Whether this is in the analysis of CCTV images or research into company personnel security systems so the diversification of the subject has taken a new direction for the new millennium.

How does somebody become a forensic anthropologist? This is not an easy question to answer as it differs from country to country. At the University of Dundee a student will study for four years to obtain a BSc honours degree in Forensic Anthropology. Our first and second year students train how to become scientists first and then in their third year they become anatomists and then osteologists by being able to identify every bone or fragment of bone in the human body from the point at which it forms until it reaches adult maturity. It is only in their fourth year that we expose them to matters that are of forensic relevance.

“This is not a profession for the weak or the mildly interested. There is no such thing as a typical day and there is no such thing as an easy job”

They may then choose to undertake a one year Masters degree in Human Identification that widens their area of exposure to include all aspects of identification from both the living and deceased. The students learn about DNA, fingerprints, facial reconstruction and other relevant techniques. At this time, students have the potential to work as interns with the Centre for International Forensic Assistance should any investigations be ongoing. Some students will choose to undertake a masters degree by research in an area that advances the subject of human identification or forensic anthropology. Students may then undertake a PhD and during that time they are mentored by staff on active forensic investigations. Eight years may seem like a long time to undergo training but the opinion of a forensic anthropologist can be sufficient to sway a jury to convict within the UK and pass a life sentence and equally persuade a jury to serve the death penalty in countries such as Iraq. There is a duty to human rights and justice to make sure that experts are properly trained.



This is not a profession for the weak or the mildly interested. There is no such thing as a typical day and there is no such thing as an easy job. One case may find you in the wilds of Scotland excavating an abandoned quarry for the skeletal remains of a mother and child who have been missing for 27 years with no more to worry you than the midges. But it may equally find you in the depths of Sierra Leone being surrounded by armed guards whose sole aim is to prevent the rebels from capturing you as a hostage. So how would you describe this job?

Glamorous? Oh dear me no! Nobody looks good in a scene of crime paper suit. Demanding? Unquestionably. 12 hour shifts for 6 weeks without break. Interesting? Absolutely no doubt. No two cases or two days are ever the same. Addictive? Without question. Each and every case is the challenge that demands to be conquered. Would I encourage my daughters to follow in my footsteps? Don't be silly!

# Forensic art

**The Centre for Forensic and Medical Art, a dynamic collaboration between the School of Life Sciences and Duncan of Jordanstone College of Art and Design, is best known for its high profile work in facial reconstruction.**

Earlier this year the team led by Dr Caroline Wilkinson, hit the headlines for its work reconstructing the face of German composer Johann Sebastian Bach. However although this kind of archaeological case attracts a huge amount of media interest the Centre's work is mainly concerned with reconstruction to aid forensic identification of individuals.

Staff at the centre are also involved in medical illustration and museum and media exhibition.

Research is at the forefront of the Centre's values and facial reconstruction methods are constantly evaluated and refined with regards to accuracy, reliability and reproducibility. In addition the Centre undertakes related research in facial recognition, anthropology, anthropometry and taphonomy.

Here they provide a step-by-step illustration of the process of facial reconstruction.



1  
Replica of skull, pegged with tissue thickness data for their sex, age and ancestry group.



2

The neck and deep muscles are added, using the tissue pegs as a guide for thickness.



3

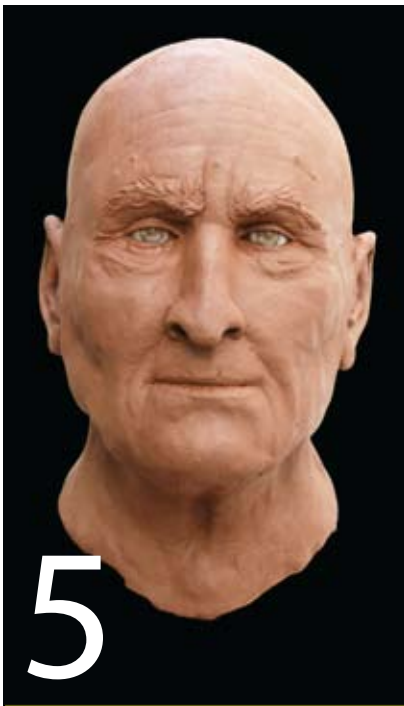
All muscles have been added, along with the nose and ears. An understanding of where muscles originate and attach allows for the unique anatomy of the individual to be built up.



4

The skin layer is added following the contours of the underlying muscles and the using the tissue thickness pegs as a guide.

Research is at the forefront of the Centre's values and facial reconstruction methods are constantly evaluated and refined with regards to accuracy, reliability and reproducibility.

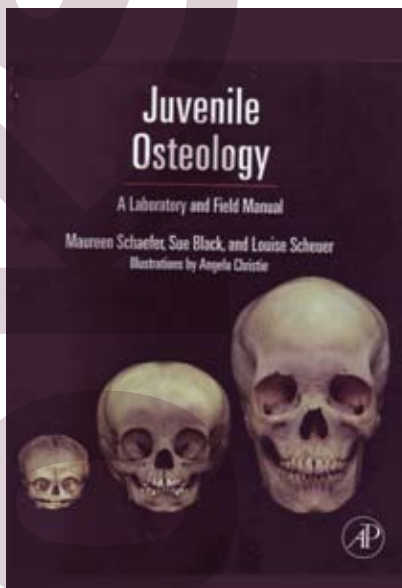


The finished reconstruction in clay.

6

The finished reconstruction, painted and given a wig to better represent the individual during life.





**Juvenile Osteology: A Laboratory and Field Manual**

Maureen Schaefer, Sue Black, Louise Scheuer  
Elsevier

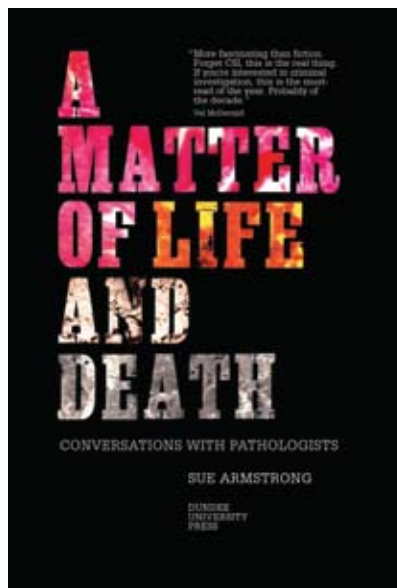
This fieldbook and manual is aimed at assisting with the evaluation of juvenile skeletal material. It provides a quick, reliable and easy-to-use reference to aid in the identification and aging of juvenile osseous material.

Unique to this manual is the presentation of data collected from a variety of populations to enable the user to select the reference most applicable to their needs.

It identifies every component of the developing skeleton, provides detailed analysis of juvenile skeletal remains and the development of bone as a tissue, summarizes key morphological stages in the development of every bone and provides a "ready reckoner" of developmental changes occurring at different life stages.

The manual is a must for anyone responsible for the evaluation of juvenile osseous material through dry bone assessment, radiographs, sonograms, and or CT scans.

*Louise Scheuer is an honorary Professor within the Centre for Anatomy and Human Identification. Sue Black is Professor of Anatomy and Forensic Anthropology within the College of Life Sciences. Her research interests include all aspects of skeletal identification, particularly in relation to forensic investigations. Maureen Schaefer was a PhD student within the Centre for Anatomy and Human Identification.*



**A Matter of Life and Death**

Sue Armstrong  
Dundee University Press

Described by crime writer Val McDermid as the "must read book of the year," this new publication from DUP offers a remarkable insight into the lives and works of 14 eminent pathologists.

Known as the backroom boys because of their work in laboratories behind the scenes pathologists are vital members of the clinical team responsible for around 70% of all diagnoses in the NHS.

The great majority of their work is to do with living patients but the popular media image has associated them with the dead and criminal investigations.

This book looks at the reality of life as a pathologist and offers 14 leading practitioners the chance to talk about what they do and how it influences their beliefs about life and death.

It includes interviews with Professor Derrick Pounder, Director of the Centre for Forensic and Legal Medicine, Professor David Levison, Professor of Pathology at the School of Medicine and Professor Sue Black, a forensic anthropologist and Director of the Centre for Anatomy and Human Identification.

*Sue Armstrong is a science writer and broadcaster living in Edinburgh.*



**Disaster Victim Identification: The Practitioner's Guide (Paperback)**

Editors: Black, Walker, Hackman, Brooks  
Dundee University Press

This guide, authored and edited by the UK's leading specialists, is the core text for the first certified academic course in the UK and the world on disaster victim identification.

It will be the single key reference book in this burgeoning area for police officers and other professionals in the field.

The book accompanies the University's course which will train over 500 UK police officers in two years. However it is also designed as a stand alone reference text for all professionals in the field.

The first of its kind internationally the book brings together the very latest advances in science and techniques together in a single volume.

*Professor Sue Black, Chair of Anatomy and Forensic Anthropology within the College of Life Sciences, is one of the UK's leading forensic anthropologists.*

*Graham Walker is the UK DVI programme convener at the Centre for Anatomy and Human Identification.*

*Lucina Hackman, is DVI Programme Convener at the Centre for Anatomy and Human Identification.*

*Clive Brooks is the lead on Disaster Management at the National Policing Improvement Agency.*

**The October meeting of Court was varied in focus, considering research and commercialisation KPIs, an extension to the voluntary severance scheme and a number of governance issues, as well as consideration of a major refurbishment proposal for the Riverside Sports Grounds. The October meeting was also the first meeting for the newly elected Senate professorial representative, Professor Georgina Follett.**

### **Voluntary Severance**

The Court received a paper summarising the outcome to date of the voluntary severance scheme. The savings target from the scheme was £6.5m, and to date £5.2m of full-year savings had been achieved. If the University was to achieve its goal of a 3% surplus per annum, it needed to ensure that as many staff as possible who wished to take advantage of the scheme had the opportunity to do so. Court therefore approved an extension of the scheme to 30 April 2009, noting that the University had no plans to extend the scheme beyond that date.

### **Joint Future Thinking Task Force on Universities**

The Court had received the interim report of the Task Force, established jointly between Universities Scotland and the Scottish Government, during the summer. It now took time to discuss the likely outcomes of the final report, which was to be published soon. The main proposal contained in the report was the re-organisation of the Scottish Funding Council's funding streams into a General Fund and a Horizon Fund. The former would comprise core funding, while the latter would be a fund to support explicitly the Scottish Government's strategic aims and objectives, and into which Universities would competitively bid. The Court was in agreement that the University would need to position itself carefully to benefit from the new Horizon Fund.

### **Performance Indicators**

The Court discussed the University's performance against targets set in the Strategic Framework relating to research, collaboration and knowledge transfer. From the report, it was clear that the University was performing well in attracting research funding, in its research expenditure and in its research overhead recovery rates. In terms of research postgraduate numbers, whilst there was an upward trend, more work needed to be done to achieve the targets set in the framework.

### **Riverside Sports Grounds**

The Court received proposals to upgrade the facilities at Riverside. The proposals amounted to the installation of two artificial pitches, the upgrading of existing grass pitches, refurbishment of the changing facilities, and the upgrading of the tennis courts on the City campus. The total cost of the development would be £1.4m (excl. VAT), and the Court approved the proposal provided that the costs could be kept within the current spending limits of the capital programme.

### **Governance**

The Court approved changes to the Schedule of Delegation and Decision-making, which can now be found online at: <http://www.somis.dundee.ac.uk/court/0pol.htm>

Court news

# Cracking down on cocaine



**Research carried out by Dr Martin Elvins, a politics lecturer in the School of Humanities, could reveal vital new insights into the way forward for European authorities in tackling the rising tide of cocaine use.**

Cocaine is one of the most trafficked drugs in the world, second only behind cannabis and with levels in Europe hitting an all time high, Dr Elvins is hoping policy makers will take on board the recommendations he's planning to publish next year.

His research, funded by £75,000 from the UK Economic and Social Research Council, is a comparative analysis of UK and Dutch counter drugs policies in the Caribbean, an area traditionally used as a through-route for the drug.

"There has been evidence emerging over the last few years that European cocaine use is rising at historically high levels whereas in the USA for example it is stabilising. Also, the UK now has the highest level of cocaine use in the EU," explained Dr Elvins.

"There are several hundred tonnes of cocaine reaching Europe each year. Colombia, Peru and Bolivia are the three main producers of coca, from which cocaine is derived and the Caribbean region is an important trans-shipment route for the drug to reach European markets.

"For European countries such as the UK and the Netherlands success in stopping drug supply en route is critical if they are to reduce the impact of organised crime here in the EU. That is why the Caribbean is such an important area.

"I'm comparing Dutch and UK counter-drugs policies in the region in order to see how they vary and the ways that the postcolonial legacy of each country influences their respective approach. I set out to establish to what extent policy coordination exists and also to understand how host countries view external support to tackle drugs."

Dr Elvins, who has written widely on drugs issues and is the author of *Anti-Drugs Policies of the European Union*, has already visited St Lucia, Barbados, Trinidad, Guyana and Curaçao and is due to head back to the Caribbean to visit Jamaica in January.

## “The UK now has the highest level of cocaine use in the EU”

“I’ve already carried out around 50 interviews,” he said. “I started with the Foreign Office and the Dutch Foreign Ministry and talked to policy makers to find out where they are putting their resources.

“Once out in the Caribbean I spoke to diplomats, drugs liaison officers, Navy and coast guard officers and other people within the embassies, as well as host government officials, law enforcement agencies etc.”

Dr Elvins added that although the stereotypical view of the Caribbean is that it is one homogenous area famous for its sunshine and beaches the reality is very different.

“It is an extremely diverse area and the set up in terms of anti-drugs measures is very different in each country. There have been attempts to take a regional approach but the diversity of the area makes that very difficult. One policy cannot really fit all and yet the classic problem with drug trafficking is displacement. If you tighten up in one area the problem tends to shift and balloon elsewhere.”

Dr Elvins has also been looking at the resources available in the Caribbean.

“The UK and the Netherlands have their own customs officials overseas mostly to address the problem of drug mules at source. The UK, for example, has been running Operation Airbridge for about five years at airports in Jamaica with direct links to London in a bid to tackle the problem. It has been a success but most drugs are not trafficked in that way. Most come in maritime shipments of one form or another – from cargo ships to yachts – but corrupt officials at airports also ‘turn a blind eye’ to baggage and fast air freight they know to contain drugs”.

Most Caribbean countries are very poorly equipped to even begin to cope with the consequences of the drug trade.

“The drug traffickers are often better resourced than the authorities. They have the power and the willingness to corrupt and use extreme violence. Although cocaine use is comparatively low in the Caribbean, the countries there are having to deal with the criminality associated with moving drugs around and that brings guns, violence and corruption.



“There is also an emerging crack cocaine problem and there is payment in kind where, for example, someone who moves a quantity of drugs from one ship to another is paid in a quantity of drugs. You don’t have to look far below the surface to see the problem. A late night walk around Castries [capital of St. Lucia] is a sobering experience, for example.”

The matter is made more complex still by an apparent shifting of political priorities in the countries whose high consumer demand is driving the supply.

“Drugs have recently been moved down the Foreign Office’s priority list and replaced on its mission statement with global warming,” he said. “Once you change priorities you change funding streams.”

Once the research is complete Dr Elvins is planning to publish his findings including a list of recommendations.

“I’ll be submitting my report next summer which I hope to develop into a book. I will be making recommendations and these will certainly be made available to policy makers. Both foreign ministries have been extremely helpful in opening doors for me.”

## “The drug traffickers are often better resourced than the authorities”

# Smiles in the rainforests



**Shona Mason, a clinical lecturer in the School of Dentistry, is looking forward to heading back to the rainforests of Peru in the New Year after spending her annual leave this year helping put a smile on the faces of local children.**

Shona, spent her summer holidays on a boat on the Amazon River near the remote Peruvian city of Iquitos as part of the Amazon Hope Medical and Dental Project.

Run by the Vine Trust, an international charity dedicated to working with disadvantaged communities, marginalised people and in particular, vulnerable children, the project provides much needed medical and dental care to local people.

"There are no dentists in the jungle," said Shona who has now been out to Peru with the project three times. "The first time I went out there I carried out a lot of emergency work. Many of the people I saw had been in pain for a long, long time.

"The second time I visited the same area I could see the impact the project was having. The idea is that the charity will visit every village every three months so there will be more opportunity for preventative work. It is very much a long term project but it is already making a difference.

"All the volunteers live and work on the boat. The villages are quite isolated and the only way in and out is by river."

Shona, who signed up for the project in 2005 when the charity's boat visited Dundee, embarked on her first trip to the rainforest the following year. She admits she was deeply moved by the experience and the reaction of the villagers she treated.

"The patients are so grateful and the villagers so welcoming," she said. "It really was quite a humbling experience."

Although Shona treats villagers of all ages it has been her work with children which has had perhaps the most profound effect.

"I remember treating one little girl and I hate doing extractions on children because it isn't pleasant for them and you feel that they are thinking what are you doing to me.

"After I had treated her I watched her get into a little boat with her mother to go back to the village and her mother pointed up at me. The girl turned and waved and she was smiling. And it was just such a lovely moment. They really do appreciate what you can do for them and it is a wonderful feeling to know that you have helped them especially if they have been in pain."



“ There are teams going out to work on the boat all year. Collectively we make a difference and that is what is important...”

Shona, who graduated from the University's dental school in 1990, has also spent part of her time in Peru visiting orphanages and meeting the many abandoned boys who have been rescued from the streets.

“There are a lot of abandoned boys in Peru and the difference in them once they have been taken off the streets and given a safer, protective environment is amazing. They are basically given a future.

“I've been learning Spanish and the last time I was out there I met some of the boys I had seen on an earlier trip and I was able to talk to them and ask them how they were doing.

“If I'm being honest I get far more out of the trips than I put in. I have a great deal of satisfaction from the work I do and it really does make you appreciate what you have.”

Shona's enthusiasm for the work of the project has led her to take on an ambassador role with the charity and she regularly gives talks about what is involved and how other people can help.



“I really love being out in Peru and I am planning to go back in February,” she said. “The last time I was there in the summer I felt like I was going home to friends and family and I was seeing patients I'd already seen before. But of course I miss my own family while I'm out there. I have three daughters of my own so obviously I do feel torn.

“I've realised that I can help the project in other ways than just being there so I try to use my passion for it to encourage more people to sign up and I can help raise awareness of what we do. I also do some fundraising for the project. I ran the Edinburgh marathon in 2006 to raise money and have organised two ceilidhs raising well over £3000.

“I will still be going out in February though and I'll be taking two dental students with me. I only go out for a fortnight at a time but there are lots of other people who do the same thing so there are teams going out to work on the boat all year. Collectively we make a difference and that is what is important.”

Shona, who funds her own trips and takes the time out of her annual leave entitlement, added that volunteers for the project do not have to have a medical or dental background.

“There are lots of other projects organised by the charity and they are always looking for people. You just have to be aged between 18 and 70.”

For more information about the project visit the Vine Trust website at [www.vinetrust.org](http://www.vinetrust.org)



# DISCOVERY DAYS 2009



**Eight of the University's newest professors will share the stage with three of the University's most senior and honoured professors at the sixth annual Discovery Days in January.**

In a slight departure from the usual format, Professor Sir Philip Cohen, Professor Sir David Lane and Professor Roger Fletcher will take part in the annual showcase of new academic talent to mark their golden year in 2008.

Sir Philip won the highly prestigious Royal Society's Gold Medal while his fellow researchers each won Gold Medals from the Royal Society of Edinburgh.

The award winning trio will take part in a Discovering Gold series of short lectures highlighting the work that has brought them such success.

Sir David Lane will talk about his groundbreaking discovery of p53, the "guardian of the genome" while Professor Fletcher will share his considerable knowledge of maths and software development in a lecture on breakthroughs in nonlinear optimization. Sir Philip Cohen will conclude with the story of protein phosphorylation in cell regulation.

Earlier in the day eight recently appointed professors will have the chance to share their enthusiasm and knowledge of their particular area of expertise in two sessions of 15 minute lectures ranging over a wide spectrum of subject matter.

The short, showcase Discovery Day lectures have a reputation for providing an entertaining and accessible glimpse into a range of challenging and often complex subjects. Their format has become a model for the sector, imitated by a number of other universities in the UK.

This year topics will include the role of carers, marine engineering, brain imaging and psychiatry, computer vision, personalised medicine, accessible technology, numerical analysis and the use of databases in predicting hospital admissions and monitoring drug safety.

University Principal Sir Alan Langlands who will officially open this year's lectures said, "The Discovery Days are an opportunity to share the fascinating research being pursued at the University, to inspire colleagues, students, families and friends, to celebrate the appointments of our new professors. We are delighted this year to be able to use the Discovery Days to honour our three Royal Medal winners – ideal role models for the new generation of professors."

The 2009 Discovery Day lectures will take place in the Dalhousie Building at Old Hawkhill on Friday 9 January.

Admission is free and all are welcome to attend. A full programme is available at: [www.dundee.ac.uk/principalsoffice/discoverydays2009/](http://www.dundee.ac.uk/principalsoffice/discoverydays2009/)



## Session 1 11am to 12.30pm

Chair • **Anne Anderson**  
*Vice Principal & Head of College  
of Art, Science & Engineering*

Presentations include:

***Learning to See***

by **Stephen McKenna**

Personal Chair of Computer Vision

***Who Care About Carers***

by **Timothy Kelly**

Chair of Social Work

***Castles in the sea?***

by **Dong Sheng Jeng**

NRP Chair of Civil Engineering

***Brain Imaging techniques and  
psychiatry***

by **Douglas Steele**

Chair of Imaging

## Session 2 1.45pm – 3.15pm

Chair • **Peter Downes**  
*Vice Principal and Head of  
College of Life Sciences*

Presentations include:

***Inclusion and accessible  
technology***

by **Vicki Hanson**

Chair of Computing

***The wisdom of databases***

by **Peter Donnan**

Personal Chair of Epidemiology &  
Biostatistics

***Getting the breaks right: a  
multiscale model to understand  
fractures***

by **Ping Lin**

Chair of Numerical Analysis

***The right medicine for the right  
patient***

by **Colin Palmer**

Personal Chair of

Pharmacogenomics

## Session 3 3.45pm to 5pm

Chair • **Sir Alan Langlands**  
*Principal and Vice Chancellor*

Discovering Gold presentations  
include:

***The story of p53 the “guardian of  
the genome”***

by **Sir David Lane**

Royal Medal Winner 2008,

Royal Society of Edinburgh

***The story of breakthroughs in  
nonlinear optimization***

by **Roger Fletcher**

Royal Medal Winner 2008,

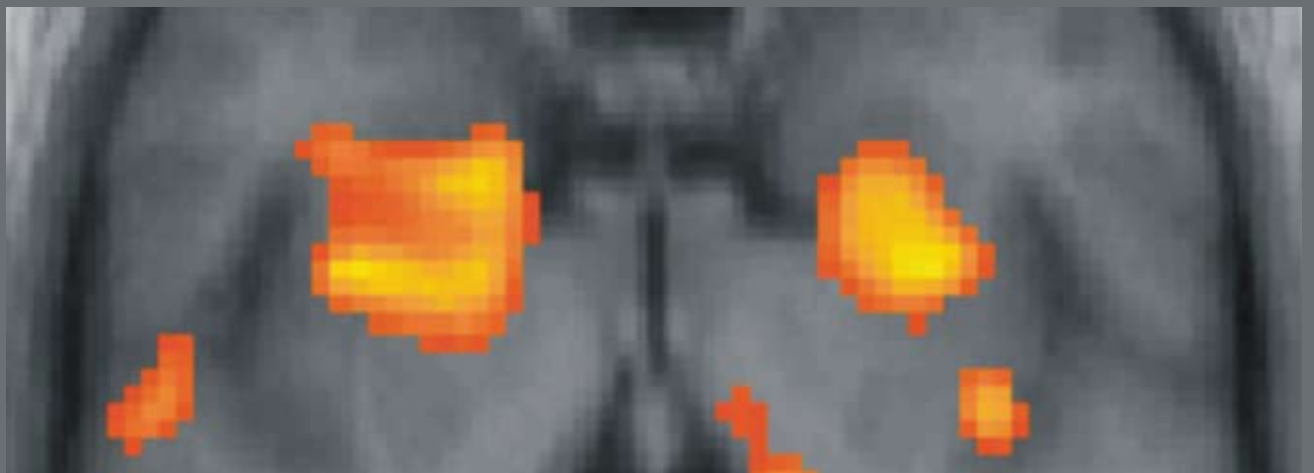
Royal Society of Edinburgh

***The story of protein  
phosphorylation***

by **Sir Philip Cohen**

Royal Medal Winner 2008,

Royal Society (London)



# art



## Silent noise: 69 degrees North

**The vast beauty of the Arctic landscape is on show at the Bradshaw Art Gallery in Duncan of Jordanstone College of Art and Design this month with a new exhibition by Kirsty Maguire.**

Kirsty, a part-time teaching fellow in the School of Architecture, spent six weeks in the icy wilderness of East Greenland last year on a climbing expedition with five other women.

Her exhibition *Silent Noise: 69 degrees North* features a selection of photographs capturing the breathtaking scenery and the day-to-day experience of living in such an inhospitable environment.

"The landscape is incredibly inspiring," said Kirsty. "It is very, very beautiful and pristine. The only colours we ever saw were the white of the snow, the blue of the sky and the black of the rock."

"The vastness of the space is amazing. You can see for hundreds of miles and yet it is so quiet."

"I feel very privileged to have been there and I wanted to share that experience and show people just how breathtaking the scenery is."

The exhibition runs until 18 December at the Bradshaw Art Gallery which is open from 9.30am to 5pm Monday to Friday and 10.30am to 4.30pm on Saturdays.

## Straylight cavern

A magical ice-cave lair reached by tunnels provides the space for an intriguing exhibition by a number of high-profile artists at the Cooper Gallery at Duncan of Jordanstone College of Art and Design this month.

Straylight Cavern is a collaboration with Richard Priestley and Milika Muritu of Cell Project Space, London and includes diverse works such as sour dough heads by Jonathan Baldock and space-inspired animations by Michael Bell-Smith, all with a sci-fi feel.

The exhibition runs until the 13 December. The Cooper Gallery is open from 9.30am to 5pm Monday to Friday and 10.30am to 4.30pm on Saturdays.



## Success for Designs for Life print

A print produced as part of the acclaimed Designs for Life collaboration between researchers at the College of Life Sciences and artist Paul Liam Harrison at the Visual Research Centre has been on show at the annual Scottish National Art Competition Exhibition.

The winning exhibit by Dr Mhairi Towler, a postdoctoral researcher at the College of Life Sciences, was made from images taken during her study of a gene involved in male infertility.

It was selected for the exhibition at Kinblethmont Gallery outside Arbroath from hundreds of entries in a competition organised by Angus College.

The Designs for Life project, funded by the Wellcome Trust and supported by the University and Dundee City Council, explores the visualisation process of scientists' research and laboratory data.

For more information about the project visit the website at: [www.designsforlifeproject.co.uk](http://www.designsforlifeproject.co.uk)



## appointments



### Professor Timothy B Kelly Chair of Social Work College of Arts and Social Sciences

**Professor Timothy B Kelly comes to the University of Dundee after working at Glasgow Caledonian University for 5 years, first as a Senior Research Fellow in the**

**Centre for Gerontological Practice and most recently as the Head of the Division of Social Work.**

Dr Kelly was the Baccalaureate Programme Director at the Barry University School of Social Work in Miami Florida prior to moving to Scotland. He has also taught at the University of Georgia School of Social Work. His areas of research include gerontological practice in health and social care settings, supporting carers and groupwork practice.

### New environmental post for University

**The University has appointed its first environmental and sustainability officer. Trudy Cunningham took up her new post in October.**

Based in Estates and Buildings Trudy is tasked with creating a green and sustainable agenda that underpins all University activity.

The post also involves raising awareness of environmental and sustainability issues, promoting environmental improvements throughout the University, supporting the implementation of the University's Travel Strategy and acting as convener of the Green Travel Group.

Trudy, who has an honours degree in Environmental Science and Geography and a postgraduate certificate in Sustainable Development, will also help monitor and set targets for fuel and water consumption and the production of waste.

Her remit includes furthering links with the wider community. Trudy, who is studying for an MSc in Renewable and Environmental Modelling, is a member of the Fairtrade Forum, the Dundee Partnership for the Environment and Dundee Health Central, part of the Smarter City Smarter Choices initiative.

"I've always been interested in environmental issues," she said. "It has long been a passion of mine. I have lots of activities and initiatives planned for the coming months. We live in a finite world where we must use our resources responsibly. I have lots of activities and initiatives planned for the coming months."

## Senior prosecutor appointed to top law school post

**Betty Bott, a senior figure in the Scottish Crown Office and Procurator Fiscal Service, has been appointed as the Director of Legal and Professional Development at the School of Law.**

Betty Bott is currently the Assistant Procurator Fiscal in Edinburgh. She has been a member of the Crown Office and Procurator Fiscal Service for 31 years and has worked in many different parts of Scotland - including Aberdeen, Inverness, Dundee, Perth, Kirkcaldy and Glasgow.

In her career with the Fiscal Service and the Crown Office Betty has specialised in prosecuting crimes against children and vulnerable witnesses, and those of domestic violence. She helped the Crown Office and Procurator Fiscal Service to establish in 2001 what was to become the Victim Information and Advice Service - a part of the prosecution service which gives case-specific information to vulnerable victims of crime so that they are kept up to date with the progress of their cases in court.

Betty taught on the Diploma in Legal Practice at the University of Dundee from 1981-1999, latterly as Head Tutor of Pleading and Advocacy.

Since then she has been an active member of the Industrial Board of the Law School and has assisted with a number of extra curricular activities run by the Law School.

She has always actively supported many initiatives between schools and the University to educate children about the law. In recognition of her services to the Law School she was made an Honorary Fellow in September 2007.

Looking forward to her new role, she said, "I feel privileged to be offered the opportunity to lead an inspired initiative at Dundee to bring the law right into the heart of the modern business world so that students make informed career decisions, understand the critical part that the law plays in all our lives and link up with prospective employers in their chosen avenue of law at an early stage.

"I want the Law School to be a place where people from all walks of life, at different times in their lives, can tap into legal teaching at all levels so that an understanding of the law becomes a relevant and necessary part of every modern business and professional person's life.

"I believe that in establishing the links and teaching mechanism to support these ideals the Law School in Dundee is leading the way in legal education in Scotland and I am delighted to be a part of this exciting programme."

#### 4 December

##### Christmas Guided Walk

Botanic Garden, Riverside Drive, Dundee  
7.30pm (Garden opens 7.00pm), Cost -  
£12.00 per person.

Join DBS Theatre Productions for an  
enchanting evening of Christmas spirit.  
The evening will start with a glass of  
mulled wine in the Visitor Centre, an  
outdoor show/walk then back to the  
Visitor Centre for another glass of mulled  
wine and a mince pie to meet the cast and  
enjoy some acoustic live music.  
For more information contact: Lesley  
Anderson l.a.x.anderson@dundee.ac.uk.



#### 5 December

##### Lack of Substance Exhibition Preview

Lower Foyer Gallery  
5-7pm

Exhibition runs from 6 December -  
18 December

For this project three fourth year  
students work with Sarah Wilkinson,  
an architecture graduate from Dundee  
School of Architecture, to explore surface  
materials, volume and process within  
their practice.

For more information contact exhibitions  
at: exhibitions@dundee.ac.uk.

#### 6 December

##### Special charity Christmas concert

Dundee Parish Church (St. Mary's), 4pm  
The Dundee University Music Society  
is holding a special charity Christmas  
concert in aid of Radio Lollipop Dundee,  
a local children's charity based at  
Ninewells Hospital. Tickets are priced £6  
(£4 concessions) and available at the  
door (opens at 3:30 pm).

All proceeds will go to charity.



#### 6 December

##### 2008 Christmas Lecture

Professor Carlos S. Frenk - 'Our  
Implausible Universe'

The Dalhousie Building, Old Hawkhill,  
University of Dundee, 6pm.

This year's Christmas lecture, presented  
by the University and Dundee City Council,  
will be delivered by one of the world's  
foremost cosmologists and an originator  
of the "cold dark matter" theory.

The lecture, which will be followed by a  
drinks reception, is free and tickets can  
be obtained from the Tower Building  
Reception, or from the online store or by  
emailing: events@dundee.ac.uk

#### 13, 14, 20 and 21 December

##### Santa in the Garden

Santa's Grotto, Botanic Garden, Riverside  
Drive, Dundee. 11am to 3pm, Cost - £5.00  
per child. Santa will be visiting the  
Botanic Garden on the above dates - be  
sure not to miss him!!

For more information contact: Lesley  
Anderson l.a.x.anderson@dundee.ac.uk



#### 9 January

##### Discovery Day 2009

Dalhousie Building. 10.30-5pm  
Short showcase presentations by the  
University's most recently appointed  
professors across all disciplines, joined  
this year by our Royal Gold Medal winners  
- Sir David Lane, Roger Fletcher, Sir Philip  
Cohen. All welcome Free. Come, enjoy,  
discover.

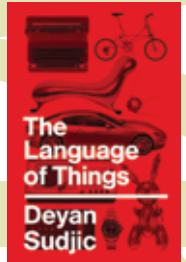
#### 31 January

##### SELS 2009 lecture

Deyan Sudjic - 'The  
Language of Things'  
Dalhousie Building,  
6pm.

Deyan Sudjic,  
Director of the Design  
Museum, a former

architecture critic for the Observer and  
a visiting professor at the Royal College  
of Art delivers an exhilarating insider's  
history of design as he introduces us to  
the world's most original innovators and  
reveals the hidden meanings in their  
work. More information is available from  
[www.dundee.ac.uk/externalrelations/  
events/sels/2009/sels2009.html](http://www.dundee.ac.uk/externalrelations/events/sels/2009/sels2009.html)



#### Carols by Candlelight

The University's annual Carols by  
Candlelight service will be held on  
Sunday 14 December at 5pm in St Paul's  
Cathedral in Dundee's High Street.

Members of the University, their families  
and friends are invited to attend the service  
which takes the form of the traditional nine  
Lessons and Carols. Singing will be led by  
the University Choirs.

For more information contact: The  
University Chaplaincy Centre on 01382  
384157 or at chaplaincy@dundee.ac.uk

# sense of freedom?

Challenge 2: the crags of Craig Rennet  
above Corrie Fee, Glen Doll, Angus

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