



# 2013 Annual Review

# Contents

Foreword from the Vice-Chancellor	3
Snapshots from 2013	4-7
<b>Research</b>	
Poor dental health linked to Alzheimer's	10
Drones for good	12
Investigating the cost of a cure	14
Brain tumour breakthrough	16
Tackling the tragedy of child poverty	18
<b>Innovating the student experience</b>	
Sowing the seeds of educational discovery	22
Changing the learning landscape	24
Evolving course portfolio sees launch of prestigious medical degree	26
<b>Employment focus</b>	
Creating a new generation of graduate leaders	30
Resourceful graduate film-maker makes Oscars debut	32
Representing the under-represented	33
<b>Working with business</b>	
Putting a (mattress) spring in your step	36
Free enterprise	38
<b>Shaping global citizens</b>	
New international strategic partnership leads the way forward	42
In search of the Aurora Borealis	44
Honorary Awards 2013	46-49
Statistics, facts and figures	50-53
Harris Flights: where art meets architecture	54

# Foreword

I am delighted to introduce the UCLan Annual Review for 2013, which highlights a range of outstanding achievements delivered by both our students and staff from across the University.



As many of you will know, I was appointed as UCLan's new Vice-Chancellor in the summer of 2013 and I made it a priority to meet as many staff and students from across the University as possible.

I am pleased to say that UCLan has already exceeded the high expectations I had before arriving. The UCLan approach of building an excellent academic University with an open and inclusive outlook has been very successful and despite the continuing funding volatility within the UK Higher Education sector, we will continue to drive this strategy in the years ahead.

Through initiatives such as our Future Leaders Programme, featured in this year's Review, we will continue to encourage our students to make the most of the educational opportunities now available across the world. These initiatives will help to ensure UCLan graduates are valued for their abilities to challenge accepted practice, as well as their capability not just to cope with change, but to lead it.

2013 saw our international standing enhanced when the Quacquarelli Symonds World University Rankings awarded us the full five stars for our approach to 'Internationalisation', highlighting a proven track record for specialising in all aspects of international educational provision. A contributing factor to this outstanding result was our pioneering Student Travel Bursary Scheme in which over £1 million of University funding has enabled more than 1,000 UCLan students to undertake a work placement or study period overseas during the last few years.

These successes fill me with great confidence that our distinctive mission is the correct approach for the future development of both our students and the University.

Focusing on the needs of individual students and supporting them through their journey with us is very much part of our ethos and one which permeates all areas of UCLan. Our encouraging results in the 2013 National Student Survey highlighted our progress in this area. At 84 percent, overall satisfaction was at its highest level ever, while a total of 18 subject areas from across our academic subject spectrum were ranked in the top 20 nationally. Teaching, academic support and learning resources were areas highlighted as showing encouraging improvements

on the previous year and were ranked well above sector benchmarks.

These results haven't happened by accident. In the past five years UCLan has invested nearly £100 million on facilities to enhance teaching, learning and leisure activities and we will continue to invest in our academic future. For example, our Engineering Innovation Centre will provide outstanding facilities along with support for staff and students in core engineering disciplines whilst working with nationally and internationally important industries such as energy and aerospace. Our prestigious new medical degree, which will be launched in the summer of 2015, is another example of investment in our future that will be transformational for our academic capacity and strength.

Devising and delivering programmes which meet local, national and international skills needs will continue to be a top priority. Employability skills are embedded into all of our degree programmes and it is encouraging to learn that last year 90.3 percent of UCLan graduates entered employment or further study six months after graduation.

We continue to play a major role as a wealth creator for the region, with more than 1,000 UCLan students or graduates starting a business or becoming self-employed in the last five years. Last year the University supported the launch of nearly 200 of these start-up ventures, now the highest in the UK, while our latest statistics show that 77 percent of these businesses are still trading two years after their formation.

In addition to our great work with students, 2013 was also a year of tremendous success for our academic research. An increased focus on impact has drawn attention to some of UCLan's real strengths; the desire to create new knowledge and apply it for practical benefit in the interests of people and society. This ethos was highlighted towards the end of 2013 when, along with all universities, UCLan made its submission to the Research Excellence Framework (REF), the outcomes of which we will receive in December 2014.

The results of the REF will determine the core research income the University receives for at least the next five years. Although research at UCLan doesn't just depend on this income, it is an

important contribution in our ability to sustain and grow this vital activity. The academic health of the University, a vital contributor to its reputation and attractiveness to new students and staff, depends on the University sustaining a vibrant, healthy and sustainable research base.

Since the last exercise of this nature we have increased the numbers of staff submitted by nearly 10 percent (despite the need to increase the threshold for submission), doubled research income, increased research degrees awarded by 35 percent and trebled the number of PhD students. This is an outstanding performance of which UCLan should be very proud.

So I'm pleased to report the University is in good shape. There is an infectious energy and enthusiasm about UCLan but it is also warm and friendly too. I thought these characteristics were encapsulated perfectly at our 'Best of UCLan' event, held in December 2013. It was a wonderful occasion and gave a real flavour of the research, teaching and knowledge transfer activity taking place right across the University. From carrying out world-leading research to embedding true innovation within its teaching curriculum, UCLan is a thriving centre of learning.

This is a University which is open to the outside world, one which is working with diverse communities to generate real social and economic benefits. Above all, this is a University which is focused on delivering a superb educational experience that enables students to reach their potential and fulfil their career aspirations. I am extremely proud to have been given the opportunity to build on this ethos and to help steer the University into the next chapter of its development and continuing success.

I hope you enjoy reading about our latest achievements and I look forward to updating you again in the near future.



**Vice-Chancellor  
Professor Gerry Kelleher**

# Snapshots from 2013



## January

### Prime Minister meets UCLan's young entrepreneurs

The University welcomes Prime Minister David Cameron as he announces a £30 million boost to the Government's Start-Up Loans scheme which will increase the total pot to £110 million over the next three years, potentially helping to start tens of thousands of new businesses. UCLan is chosen as the host venue because of its top three national ranking for the number of graduate start-ups with around 77 percent still trading successfully after two years.<sup>1</sup>

### Chinese New Year celebrated

As more than 1.3 billion people celebrate Chinese New Year around the world, Preston welcomes some of China's most respected entertainers. Organised by UCLan's Confucius Institute, the packed audience at Preston's Guild Hall Charter Theatre is treated to a unique night of song, dance and acrobatics including a performance by the Chengdu Nationalities Troupe, whose rendition of 'Many Blessings Fill Your World' featured in the Beijing Olympic and Paralympic Games.<sup>2</sup>

### Cyprus Campus wins Europe's top audio visual innovation award

UCLan's Cyprus Campus wins the sought-after title of 'Most InAVative Education Facility' at the prestigious Europe, Middle East and Africa (EMEA) InAVation Awards. The University triumphs over 30 competition entrants as well as shortlisted projects from four other university finalists based in England, the Republic of Ireland and Russia. According to the judging criteria, the award is given to the university whose entry shows most evidence of a well-developed audio visual system design which brings together technologies that are innovative, functional and usable.<sup>3</sup>

## February

### Expert plays key role in pioneering new pain resource

Professor Bernie Carter is among a small group of leading academics to oversee the development of a new resource for parents who want to know how to help manage their child's pain after surgery. 'My Child is in Pain' is an interactive website which incorporates videos, text and illustrations on how to provide practical advice on some of the simple but effective things parents can do to provide effective relief and manage their child's discomfort.<sup>4</sup>

### Cycling chief proves popular

Students and staff are treated to a special evening with Brian Cookson, President of British Cycling, who took over the organisation when it was at its lowest ebb and transformed it into the most revered national governing body for sport in the UK. The UCLan Honorary Fellow enthralled the audience with tales of how he became president of British Cycling and the achievements of the team at the Athens, Beijing and London Olympic Games.<sup>5</sup>

### Graduate animators win Royal Television Society Award

Two animation graduates are crowned winners at the Royal Television Society (RTS) Student Television North West Awards. Robert Beard and Matthew French are awarded the regional RTS prize for animation for their short film 'Mime Square', which the duo produced during their final year at UCLan.<sup>6</sup>

## March

### Lancashire youth voices heard in high places

Students assist Lancashire County Council (LCC) to discover the burning issues affecting the region's youngsters and which impact on community cohesion. The 11 students, studying on the Foundation Degree in Community Leadership and the BA (Hons) Community Leadership, interview a cross section of young people in Lancashire. Their views are recorded in a report for LCC entitled 'Lancashire Youth Voices' and expressed through three animated films unveiled at an LCC strategic consultation event attended by over 100 delegates.<sup>7</sup>

### Local choirs join together for charity

Over 400 music fans enjoy a charity concert with the award-winning UCLan Chamber Choir. The Choir, which has also appeared on BBC1's Songs of Praise, performs with special guests from Harris Primary School, Fulwood Academy and Runshaw College. The money raised contributes to the University's Harris Bursary Fund which helps disadvantaged students.<sup>8</sup>

### Many dirty hands make light work

Children from local primary schools join UCLan community leadership students to rejuvenate neglected wasteland and make a difference to a local community by the Leeds and Liverpool Canal in Burnley. The students work with the children to plant herbs, bulbs, seeds and flowers before watering the flora with a fire engine hose.<sup>9</sup>



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## April

### New international partnership builds on PhD student success

UCLan signs a landmark agreement with Shah Abdul Latif University (SALU) in Pakistan. The Memorandum of Understanding builds on existing educational links which currently involve 10 SALU PhD students completing their research degrees within Lancashire Business School and the Virtual Institute of Nanotechnology and Bioengineering within the School of Computing, Engineering and Physical Sciences.<sup>10</sup>

### Local schools celebrate UN Chinese Language Day

UCLan's Confucius Institute welcomes children based at secondary schools from across the region as they celebrate UN Chinese Language Day. In a day which highlights Chinese culture and language, the local youngsters sample Kung Fu training, Mandarin lessons, paper cutting and Chinese calligraphy.<sup>11</sup>

### Journalism celebrates landmark event

Famous names from the world of news and the creative industries head back to Preston to toast 50 years of journalism teaching at the city centre campus. The distinguished alumni join current undergraduate and postgraduate students, as well as academics, at a special careers development event.<sup>12</sup>

## May

### Lord Adonis meets University entrepreneurs

Labour Peer Lord Andrew Adonis addresses the region's business leaders and speaks to young entrepreneurs from UCLan during his one-day visit to the North West. He describes the region as 'a great powerhouse' of the UK economy which needs to be part of high-speed rail if it is to progress.<sup>13</sup>

### Fables brought to life in new exhibition

Students unleash their creative skills to share legends and fables through textile designs at a free exhibition. The second year BA (Hons) Textiles students create eight mountains, complete with rain cloud, and use an array of materials to fashion their mythical dream world alongside an Alice in Wonderland-inspired display.<sup>14</sup>

### Famous face buckles up for a fuel efficient drive

Motorsports engineering students provide fuel saving tips to former England rugby union international Matt Dawson. The students join Matt on campus at the beginning of the Shell FuelSave Driving Challenge which saw the sportsman drive 280 miles from Preston to London on a single tank of Shell FuelSave.<sup>15</sup>

### UCLan cyclists break Chris Hoy record

UCLan student cyclists smash a track record which was set by Olympian Sir Chris Hoy 16 years ago. The four-man UCLan team set a new record and win the gold medal in the men's team pursuit at the British Universities and Colleges Sport Track Cycling Championships in Glasgow. The UCLan team's time of 4:37:04 breaks the 4:38.375 record set by Heriot-Watt University in 1997 when the six-time Olympian was a student at the university.<sup>16</sup>

## June

### UCLan celebrates 'first' degree for environmental and ethical performance

UCLan is once again confirmed as one of the top universities in the country for environmental and ethical performance according to The Guardian newspaper. UCLan is placed joint ninth out of 143 institutions in the People and Planet Green League, confirming a top 10 place for the sixth year in a row. As part of the league, universities are also awarded degree-style classifications with UCLan's total score of 54 out of a possible 70 helping it to achieve a 'first'.<sup>17</sup>

### New product is first for confectionery industry

Former Royal Engineer turned product design student Kenny Scott uses his skills to revolutionise the humble candyfloss maker by creating a machine to produce floss in the flavours of traditional boiled sweets such as pear drops, cola cubes and rhubarb and custard. The idea behind the final year mature student's Cloud Candy machine came from his time working in Germany repairing candyfloss machines after leaving the army.<sup>18</sup>

### Prestigious national appointment for paramedic lecturer

School of Health Lecturer Lizi Hickson is appointed Assistant Director of Professional Standards for the College of Paramedics. The new position will see her play a leading role in shaping the future training of the UK's paramedics and is embedded alongside her current post where she is the course leader for UCLan's DipHE Pre-Hospital Care (education for paramedics).<sup>19</sup>



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## July

### Nobel Prize winner launches new research institute

On the day he is made an Honorary Fellow of the University, Nobel Prize winner Professor Sir Harry Kroto launches UCLan's new Institute of Nanotechnology and Bioengineering. Following the conclusion of his well-attended public lecture, Sir Harry unveils an official plaque to mark the occasion. The Institute is conducting research into areas at the leading edge of biological, chemical and physical sciences, exploiting the unique advantages of nanoscale structures and materials.<sup>20</sup>

### NASA calls for PhD graduate

PhD graduate Dr Caroline Alexander lands her dream job at NASA. The UCLan scholar will work at NASA's Marshall Space Flight Centre in Alabama in a prestigious post-doctoral position. Dr Alexander's research analyses ultra-high resolution data of the Sun's outer atmosphere to determine the physical processes taking place.<sup>21</sup>

### Junior University taster gives teenagers appetite for education

More than 125 Burnley teenagers celebrate their graduation from UCLan's six month pioneering Junior University programme. The Year 10 pupils don their caps and gowns in front of their proud families and friends after completing a host of hands-on workshops in various subjects including forensic anthropology, games design, physics, robotics and nursing.<sup>22</sup>

## August

### £9 million for health inequalities study

Academics from the Schools of Health; and Pharmacy and Biomedical Sciences announce they are part of a North West research group which is to receive £9 million to help tackle some of the nation's most pressing health problems.

The University's researchers, who are collaborating with fellow scientists from across the region, will investigate and address issues of health inequalities through improvements in public health and chronic disease interventions. The funding is part of a national programme supported by the National Institute for Health Research.<sup>23</sup>

### Teenage abuse on Ask.fm widespread

Research undertaken by Amy Binns, from UCLan's School of Journalism and Media, reveals 38 percent of young girls using Ask.fm have been sent frightening, upsetting or embarrassing messages anonymously.

In a peer-reviewed report, published in the Media Education Research Journal, the senior journalism lecturer details the experiences of more than 300 girls using Facebook, Twitter, Ask.fm and its predecessor Formspring.<sup>24</sup>

### UCLan announces MoU with Virtek Vision

UCLan's international links continue to grow as it signs a Memorandum of Understanding with Virtek Vision International Inc. of Canada, a leading supplier of laser-based manufacturing technology. The agreement paves the way for the two organisations to collaborate on projects related to the development of skills, methods and technologies used in real-world manufacturing applications. Distinguished guests from industries as diverse as aerospace, shipbuilding, heavy engineering and construction witness the signing.<sup>25</sup>

## September

### Modern housing issues addressed through global research

UCLan joins an international venture to research modern housing issues across Europe. The Grenfell-Baines School of Architecture, Construction and Environment is one of 34 organisations from 29 countries taking part in OIKONet, a three-year project studying contemporary housing from a multidisciplinary and global perspective. As part of a £1 million Euro-funded project, UCLan is leading on research to identify critical issues related to contemporary housing studies such as sustainable design and house preservation.<sup>26</sup>

### Schools mark European Day of Languages at UCLan

Pupils from across the North West visit UCLan to celebrate cultures from around the globe as part of the European Day of Languages. Attendees mark the annual event by trying new foreign languages and sampling dishes cooked by UCLan's international students from China, France, Germany, Japan and the USA.<sup>27</sup>

### UCLan partners with Samsung

The world's largest technology manufacturer Samsung partners with UCLan to help equip product design students with key employability skills. The exclusive agreement enables final year students to work on highly confidential live briefs with the company's London-based European Product Innovation Team.<sup>28</sup>



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## October

### Leading UCLan figure receives honour

Malcolm McVicar, UCLan's Group Chief Executive, collects the Magnolia Award from the Shanghai Municipal Government of the People's Republic of China. The prestigious award was established by the Shanghai municipality in 1989 to recognise the contribution made by outstanding international individuals to Shanghai's exchanges with foreign countries and to the city's development.<sup>29</sup>

### UCLan give credit for MOOCs

In what is thought to be a UK first at a British university, UCLan acknowledges the educational value of MOOCs – Massive Open Online Courses. Students who complete a MOOC will now see their efforts count towards a UCLan qualification. The new initiative aims to meet the needs of employees and their employers by recognising professional practice in the workplace.<sup>30</sup>

### Celebrating 20 years of British Sign Language and Deaf Studies education

UCLan's British Sign Language and Deaf Studies programme marks its 20th anniversary by hosting some of its most successful alumni at a one-day celebratory event. Included among the distinguished guests is Asif Iqbal MBE, the public appointments ambassador for the Cabinet Office and Government Equalities Office. It is estimated that more than 60 percent of British Sign Language/English interpreters working in the UK have been taught on courses delivered at UCLan.<sup>31</sup>

## November

### Sharing the science facts behind comic book fiction

UCLan scientists team up with writers of Marvel and DC Comics to inspire primary school children and help debunk stereotypes about engineering. The Hero Lab project sees comic book writers Andy Lanning and Anthony Williams give UCLan a Gotham City-style makeover and turn engineering lecturer Matt Dickinson into a superhero character.

The initiative is funded by the Royal Academy of Engineering as a follow-up to the successful Science of Superheroes show run by Matt where the lecturer shares the science fact behind the science fiction of many well-known characters such as Spiderman, Wolverine and Iron Man.<sup>32</sup>

### Red carpet style

Talented textiles student Olivia Haile transforms theory into practice as she wins a competition set by Gainsborough Flooring to design a dress made out of a red carpet. The dress, made from a heavy domestic wool twist, is showcased at the company's party to celebrate the shop's relocation.<sup>33</sup>

### World-class sporting facilities attract international recognition

As they prepare for the Rugby League World Cup tournament, UCLan's Sports Arena becomes the official training venue for the teams from Fiji and Ireland. The players also take advantage of the University's new Physiotherapy Clinic where they receive massage treatments from UCLan's second and third year sports therapy students.<sup>34</sup>

## December

### Commitment to researcher development recognised

UCLan celebrates after retaining a prestigious award acknowledging its commitment to researcher development. Following a two-year review it is confirmed that UCLan has retained the European Commission's HR Excellence in Research Award. The award demonstrates the University's obligation to improving the working conditions and career development for research staff.<sup>35</sup>

### Local librarian on track to write rail safety film

A local librarian with a passion for scriptwriting will see her work screened across the region after her talent is recognised by Northern Rail. Mother-of-two Sue Moffat wins an annual competition to devise a 50 second film script promoting rail safety and appropriate behaviour whilst travelling on trains.<sup>36</sup>

### UCLan announces new Professor of Korean Studies

Hazel Smith is appointed Professor and Director of Korean Studies at UCLan. In her new role Professor Smith will provide academic and research leadership within UCLan's new International Institute of Korean Studies. The new Institute is the only academic centre of its kind in the UK, and one of the few in the world, to offer a master's course in North Korean studies.<sup>37</sup>



Research is not only crucial to the economic and social development of society; it is also critical to the development of UCLan. So whether it's devising a blood test to detect brain tumours, uncovering a potential cause of Alzheimer's or helping the world's poor to gain access to vital medicines, UCLan's research is changing lives.





UCLan's Dr Sim Singrao, Senior Research Fellow.

# Poor dental health linked to Alzheimer's

People with poor oral hygiene or gum disease may be at a greater risk of developing Alzheimer's disease, a new study led by UCLan's School of Medicine and Dentistry suggests.

The research, published in the *Journal of Alzheimer's Disease* during 2013, was led by UCLan's Professor StJohn Crean and Dr Sim Singhrao who analysed 10 brain samples donated by patients who suffered from dementia during life. They were compared with the same number of brain samples from non-dementia sufferers.

The research uncovered the presence of *Porphyromonas gingivalis* in brains from patients suffering from dementia. This bacterium is commonly associated with chronic periodontal (gum) disease and enters the bloodstream, often through invasive dental treatment, but also through daily activities such as eating, chewing and the brushing of teeth. From there it can potentially enter the brain.

The researchers proposed that every time the bacterium reaches the brain it will trigger the brain's own immune system responses by primed glial cells (cells which provide support and protection for neurons in the brain), causing them to release more chemicals aimed at killing the bacteria. However, these bacteria can avoid being killed and instead the chemicals end up affecting and even killing functional neurons instead. This could be one mechanism that can lead to changes in the brain, typical of Alzheimer's disease, and could be responsible for causing symptoms such as confusion and deteriorating memory.

It is the first time that documented research has found *Porphyromonas gingivalis* in the brains of dementia sufferers and adds to a growing body of evidence that suggests a possible association between gum disease and individuals who may be susceptible to developing Alzheimer's disease, if exposed to the appropriate trigger.

Research currently underway at UCLan is playing an active role in exploring this link, but it remains to be established whether poor dental hygiene can lead to dementia in healthy people, which could have significant implications for the population as a whole.

Dr Sim Singhrao, Senior Research Fellow at UCLan, said: "We have been working on the theory that when the brain is repeatedly exposed to bacteria and/or debris from our gums, subsequent immune responses may lead to nerve cell death and possibly memory loss. Therefore, continued visits to dental hygiene professionals throughout one's life may be more important than we originally thought."

The research findings from human brain specimens have indeed been supported by recent research carried out in collaboration with the University of Florida. This work confirmed *Porphyromonas gingivalis* in the mouths of animals does find its way to the brain once gum disease has become established. The UCLan research team's hypothesis is strengthened by recent results demonstrating the chemicals released by the brain's immune system in response to *Porphyromonas gingivalis* reaching the brain, do 'inadvertently' damage functional neurons in the area of the brain related to memory.

The human brain research benefited from donated brain samples, provided by Brains for Dementia Research, a donation scheme supported by Alzheimer's Research UK and the Alzheimer's Society.

Dr Singhrao added: "Our current research has paved the way for asking more pertinent questions relating to gum disease and the development of Alzheimer's disease. We are currently communicating with the Brains for Dementia Research tissue bank for more brain tissues from people with both intact and compromised memory who have relevant medical and dental records. Our research is aimed at discovering if all those who suffer from Alzheimer's disease also suffer from chronic periodontal disease during life. If so, do the bacteria responsible for causing gum disease contribute to deterioration in memory upon entry to the brain? It's a question we hope to answer in the not too distant future."

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**"Continued visits to dental hygiene professionals throughout one's life may be more important than we originally thought."**

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A pioneering research trial which united drone technology with the power of social media has the potential to save lives.

# Drones for good



Unmanned Aerial Vehicles (UAVs) or 'drones' receive a lot of bad press as they're usually associated with civilian casualties in military theatres. However, a collaborative research project between UCLan's Schools of Journalism and Media and Computing, Engineering and Physical Sciences, together with commercial partner eMigs, has proved that drones can be a force for good.

Every year Patterdale Mountain Rescue assists hundreds of injured and missing persons from around the Ullswater area of the Lake District. The average search takes several hours and can require a large team of volunteers to set out in often poor weather conditions.

In a world first, the UCLan team wanted to see how the use of UAV (or drone) technology, together with crowd-sourced help via the internet, could reduce the time taken to locate and rescue a person in distress.

The trial, known as *aeroSee* was organised in collaboration with the Patterdale Mountain Rescue Team. The rescue scenario saw the UAV scanning 10 square kilometres of mountain wilderness in search of a single hiker and a group of walkers with a dog.

A pilot on the ground commanded the tiny drone as it flew over the terrain with television and infrared heat sensors. The UAV flashed back 100 images per minute, too many for a single human to review.

On the day of the trial over 350 people from 25 countries including the USA, Africa and Europe, acted as virtual mountain rescue search assistants as they joined the live search and rescue trial operation from their desktop computers, tablet devices and mobiles. In all, 3500 images were tagged within the first hour of the experiment.

The remote volunteers correctly identified the 'missing hiker' within just five minutes of the operation going live. Alerted by this information the UAV pilot flew the drone lower for a closer look before calling in mountaineers from the Patterdale search team.

Paul Egglestone, Director of UCLan's Media Innovation Studio, said: "We received a great response from the general public with online search volunteers taking part from countries all over the world. The research has clearly demonstrated how powerful this technology can be when people are persuaded to engage with it."

Dr Darren Ansell, UCLan's Space and Engineering Lead, added: "The *aeroSee* system has the potential to support a lot of civic duties in the future, such as supporting more search and rescue teams, assisting the fire services and helping with wildlife conservation."

Tom Abbey is a Mountain Leader with the Patterdale team. He explained that UAVs could have a real part to play in future rescue operations: "We know that drones could be really useful in



some scenarios and the idea of getting people to help with the rescue operation wherever they are in the world is a really interesting idea that taps into all the ways people are using social media technology today. And doing it like this ensures it is done safely and sensibly."

The *aeroSee* project was recently named by the Design Museum as one of the top designs of 2013. Over the course of the next two years the research team, working with key partners across a number of international sites, will continue to examine the opportunities for UAV technology to provide a useful, relevant and possibly life-saving public service.

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**"The research has clearly demonstrated how powerful this technology can be when people are persuaded to engage with it."**

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# Investigating the cost of a cure

New research being undertaken by UCLan's Centre for Professional Ethics could offer hope to the millions across the globe currently being denied access to life-saving medicines.

Picture the scenario: a disease is destroying your vital organs and there's a chance you will die. There's a cure but you can't have it because it's too expensive. This cure could be made available cheaply, but high prices, partly generated by the intellectual property rights (IPR) system, prevent this from happening. There are tens of millions more people like you. Hundreds of thousands of them die unnecessarily every year.

Poverty is the single biggest barrier to improving healthcare in the developing world. With the technological divide between rich and poor wider today than ever before, almost one third of the world's population is excluded from the benefits of science, including access to life-saving healthcare.

Research activity within UCLan's Centre for Professional Ethics within the School of Health analyses the institutional frameworks that contribute to this divide, with findings and results feeding directly into policy making and planning.

In 2013, the Centre was awarded a prestigious €2 million European Research Council (ERC) grant to investigate how access to medicines can be improved across the globe.

At the crux of the Centre's work will be an examination of how the IPR system could be supplemented with performance-based rewards for pharmaceutical innovation that do not rely on the patent system. The ERC-funded group will undertake multi-disciplinary research to



ascertain how research into important medicines could be rewarded according to measurable global health impact rather than through patent-protected mark-ups that deprive many patients of access to medicines.

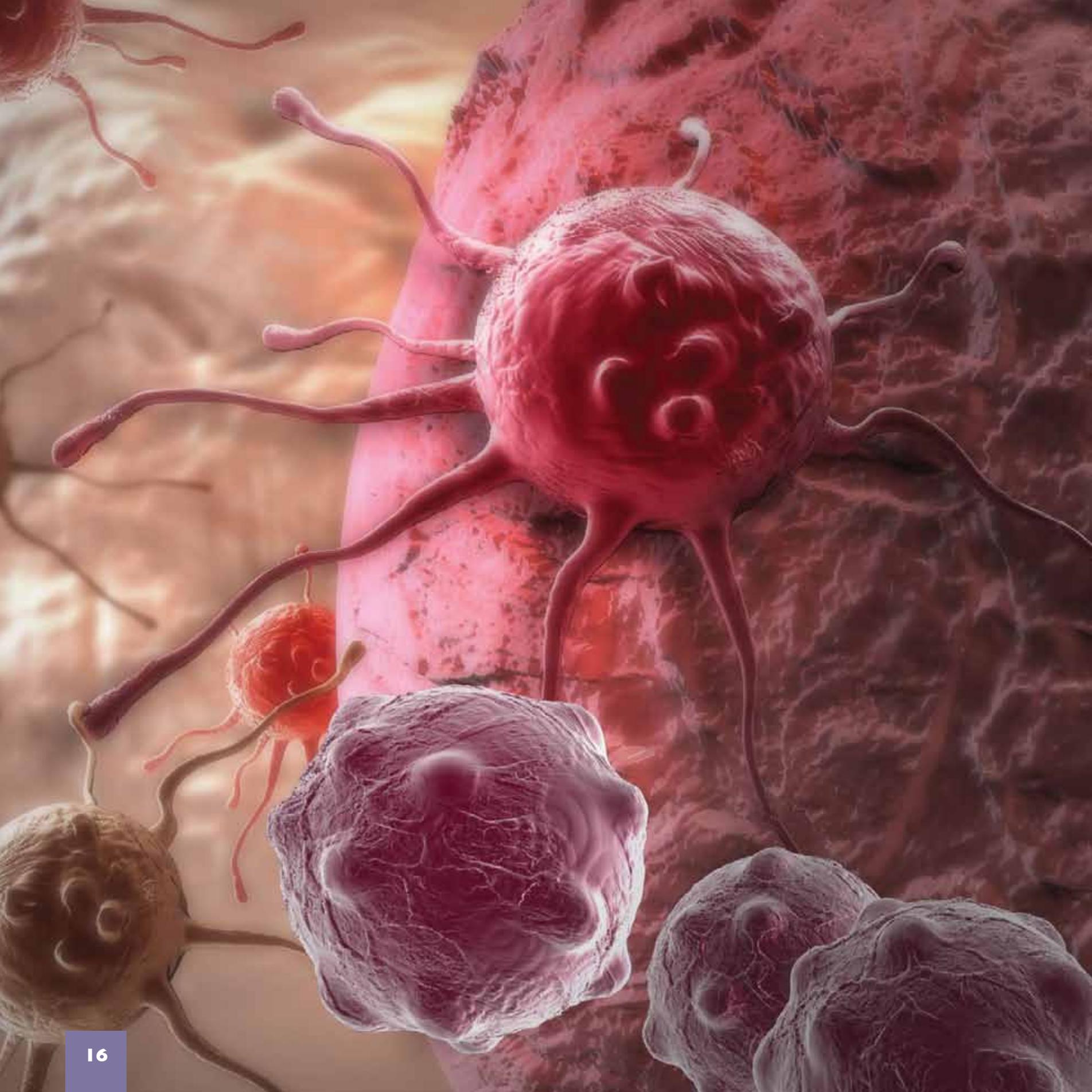
High drug prices harm patients not only in the developing world. Sorafenib, marketed as Nexavar, is a cancer drug not normally available through the National Health Service (NHS) because its price is so high that it falls outside the established cost-effectiveness standard. To make this product accessible to its people, the Indian government imposed a compulsory licence that permits an Indian generic manufacturer to produce and sell the drug at a much lower price. Through performance-based rewards, innovators could earn large payments for their products without charging exorbitant prices that might then provoke a compulsory licence, thereby resolving two problems of the current patent system, one for the patients and one for the pharmaceutical industry.

The research project entitled 'Performance-based Innovation Rewards' is being led by UCLan's Professor Thomas Pogge. He explained the ethos behind the research programme:

"There are no easy solutions to mitigate the disadvantages of the international IPR system. However, the ERC funding gives our team the opportunity to make a sustained effort for five years to resolve one of the most intractable problems of the 20th and 21st centuries."

Professor Doris Schroeder, the Director of the Centre, added: "I am very proud and hopeful that Thomas' team will provide a key breakthrough to this longstanding issue. The ERC funding is also recognition of Professor Pogge's global standing given that the ERC only funds exceptional research leaders and pioneering work. For our Centre it is also a means to an end and something which we have been working towards for the last 10 years, namely, a significant improvement in the lives of poor and disadvantaged communities across the globe."

Almost one third of the world's population is excluded from the benefits of science, including access to life-saving healthcare.



# Brain tumour breakthrough

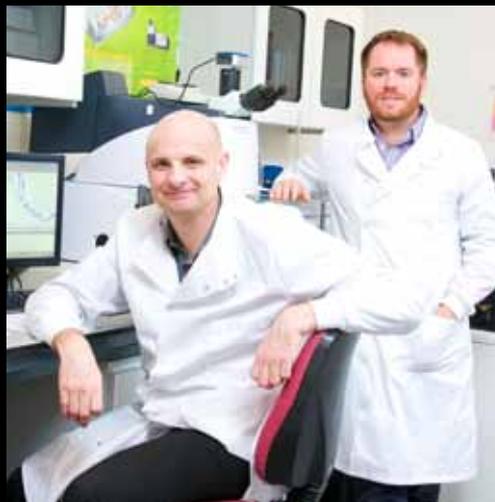
Pioneering research at UCLan promises to cut brain cancer diagnosis times from two or three days to just 30 minutes.

The research, developed by Dr Matthew Baker and Mr Peter Abel, is based on using a non-invasive technique to diagnose brain cancer by analysing patients' blood samples using a combination of infrared lighting and protein biomarkers.

Published during 2013 in the leading journal *Analytical and Bioanalytical Chemistry*, the revolutionary technique is currently undergoing a patent application. Currently patients undergo invasive and uncomfortable tests in hospital over several days before receiving their results. Once perfected, the new process will transform the diagnosis of patients with brain tumours.

Each year more than 16,000 people globally are diagnosed with a brain tumour. In the UK more children and adults under 40 die of a brain tumour than from any other cancer – but despite this, brain tumours receive less than one percent of the national spend on cancer research.

The new research breakthrough, the result of collaboration between UCLan's Schools of Forensic and Investigative Sciences and Pharmacy and Biomedical Sciences, is based on an initial analysis of blood samples donated by 49 cancer patients and 25 non-cancer patients. The study demonstrated the ability of specific biochemical markers and infrared spectroscopy to diagnose gliomas – a particular kind of primary brain tumour.



L-R: Pictured in their research lab, Peter Abel and Dr Matthew Baker.

Dr Baker found molecular differences when infrared light was transmitted directly at the glioma. The light detected molecular vibration from the serum, which identified different disease states, ie cancerous or non-cancerous. The new test can achieve a diagnosis within 30 minutes.

Mr Peter Abel took the testing one step further and observed Cytokine Angiogenesis-associated protein levels, which discriminated between glioma and non-cancer blood sera, through various data combinations, achieving results in less than five hours. Both research strategies have now been combined to read the molecular language of brain tumours in blood, but in different ways. The research team benefited from blood samples

supplied by Walton Research Tissue Bank and Brain Tumour North West.

Commenting on the research breakthrough Dr Matthew Baker explained: "At the heart of our work is a commitment to provide reliable diagnostic tests that enable earlier detection of cancer. This type of research provides a non-invasive solution to detecting the early stages of brain cancer whilst supporting medical decision-making and helping healthcare professionals to improve patient outcomes.

"Our results represent a real advance and have the ability to revolutionise the clinical environment by providing objective measures for diagnoses, enabling increased efficiency and a positive economic impact on health services. We hope this will also help to relieve some of the emotional stress patients experience while waiting for test results."

Research colleague Mr Peter Abel added: "The current diagnostic process relies on time-consuming testing which requires hospitalisation for two to three days. Separately, brain tumour research is woefully under-funded and treatments lag seriously behind other cancers. This new test could expand cancer diagnostics globally, allowing for the possibility of screening for brain cancer as well as detecting for recurrent tumours at a much earlier stage. We believe that in time, this technique could be carried out by a doctor as part of a regular health screening check, helping to increase survival rates whilst alleviating the pressure on healthcare resources."

New research in West Cumbria  
to inform national policy blueprint

# Tackling the tragedy of child poverty



The figures are staggering and appalling in the same measure: the proportion of Britain's children living in poverty grew from one in ten in 1979 to one in three in 1998. Today 30 percent, or nearly four million children, are living in poverty.

These widely publicised figures by campaign group End Child Poverty reveal the disturbing breadth and depth of the situation, and the gross levels of inequality that children face in West Cumbria and many areas in the UK.

What's more, recent research and discussion papers highlight that some interventions may be without firm evidence bases and show little improvement for children and families living in poverty.

Now a collaborative research project involving UCLan and the Whitehaven-based Howgill Family Centre aims to inform Government policy development around the issue by working alongside challenged urban and rural communities in West Cumbria.

Targeted at those who work with children and families, or are involved in community development and interested in the welfare of the region's children, the research outputs aim to improve the quality of life and enhanced social mobility among at-risk individuals, resulting in wider community benefit and sustainable change.

Dr Rick Wylie, Academic Director of UCLan's Westlakes Campus and Executive Director of the UCLan Applied Policy Science Unit (APSU), explained: "Poverty is a tragic and enduring reality confronting many children, families, neighbourhoods and communities in our society. By working in partnership with the Howgill Family Centre we hope to address a number of key issues and develop solutions for the challenged urban and rural communities of West Cumbria."

In addition to encouraging and empowering professionals to support children and their families proactively, the research will also form part of a wider APSU project focusing on the emerging policy agenda of 'predistribution'.

Dr Wylie added: "Put simply, predistribution means focusing more on decent living wages and relying less on tax credits to reduce inequality. The spread of low pay has capped opportunities, boosted in-work poverty, weakened the incentive to work and increased the cost of income support. This of course has had a massive knock-on effect for the lives of children both in West Cumbria and the UK. We are very confident our research will be a step in the right direction, acting as a catalyst for change to inform the Government and empowering communities to a better future."





Delivering an academic challenge to stretch our students remains a key priority. In 2013 we became the first in the UK to extend our undergraduate research internship scheme to talented pupils at local schools and colleges.

We also became a national award-winner for the creative adoption of new technology which is augmenting the teaching process and enhancing the educational experience for our own students.



# Sowing the seeds of educational discovery

UCLan students continue to flourish on the University's pioneering undergraduate research internship programme which in 2013 was extended to talented sixth-form pupils at local schools and colleges.

Established in 2008, the initiative is one of the UK's largest undergraduate research internship schemes, enabling UCLan to play its part in laying the foundations for continuous innovation, equipping the workforce with higher skills and contributing substantially to economic growth.

In 2013 these foundations were extended through the launch of UCLan's Young Researchers Scheme, a national first, aimed at attracting high-achieving sixth-formers to actively participate in some of the University's leading research projects, all of which have real-world applications.

The pilot saw 17 outstanding students, from schools and colleges located across the North West, gain a research experience for the duration of between one and two weeks. They joined UCLan's own undergraduate research interns, working on projects which ranged from the building of an innovative electronically controlled turbocharger, an analysis of UK attitudes to buying beef following the horsemeat scandal to a study of internet addiction in China.

At an academic poster presentation later in the year, Kirsty Brocklehurst, from Lancaster Girls' Grammar School, was named the winner of the Young Researchers Scheme when she presented her research alongside UCLan students. Kirsty worked with UCLan astrophysicists to produce interactive promotional materials showcasing the University's collaborative project with NASA to capture high-resolution images of the Sun.

The 18-year-old said: "The project has given me a feel for university life and stretched me academically as in only a week I learned the essentials of computer coding."

Fourth year archaeology student Karl Povey has seen his research, which focuses on a Roman settlement in Ribchester, catapulted on to the national and international stage. The student spent eight weeks digging in Ribchester to unearth parts of a Roman settlement, helping to inform the creation of maps which detail what the site might have looked like at the time.

Karl's research was showcased in Westminster at the annual UCLan-sponsored Posters in Parliament exhibition which enabled students from 23 universities to highlight their work to Members of Parliament. Karl has also been accepted to present a paper on Roman forts at the National Conference of Undergraduate Research in Kentucky, USA. In addition, he will share his findings at the next British Conference of Undergraduate Research in Nottingham.

The talented UCLan student, who has ambitions to study for a PhD in Roman archaeology, commented: "From the very start of my degree the UCLan scheme has enabled me to work on high-quality research alongside archaeology experts who are leaders in their field. I have been given privileged access to unpublished materials and the success of this research has led to national and international recognition.

"I'm really looking forward to presenting my work publicly and feel honoured to share my knowledge with so many people."

Professor Stuart Hampton-Reeves, Chair of the British Conference for Undergraduate Research (BCUR) and Professor of Research-informed Teaching at UCLan, said huge advances had been made in regard to the importance placed on undergraduate research. "Undergraduate research improves the student experience, provides our workforce with higher skills, benefits employers, helps to stimulate UK-led innovation and contributes to economic growth," he explained. "There is more that can be done to ensure that research-informed teaching becomes commonplace in UK universities but the work of BCUR and our Posters in Parliament event goes a long way to showcasing the tremendous progress that is being made at UCLan and across the UK with regards to embedding undergraduate research in the curriculum."

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"From the very start of my degree the UCLan scheme has enabled me to work on high-quality research alongside archaeology experts who are leaders in their field."

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Fourth year archaeology student Karl Povey at the Roman settlement in Ribchester.

# Changing the learning landscape

How the innovative use of technology is helping to boost student engagement and learning.

In today's world of higher education, the classroom is no longer bound by four walls. The lecturer, of course, is still the critical figure in a student's journey through university but exploring the full potential of digital technology to enhance the teaching and learning process is a hallmark of UCLan's educational ethos.

The University has been a champion of combining virtual learning environments with pedagogic innovation for many years. For instance, since 1996, the University has offered the only astronomy degree designed specifically for distance learning students. In 2013 the University's commitment to transforming its online learning provision was recognised at the Times Higher Education Awards.

UCLan won the 'Outstanding ICT Initiative of the Year' award for implementing its Digital Shift initiative aimed at incorporating digital technology into many aspects of its teaching and learning strategy.

Within the School of Social Work a member of the staff team has turned to Twitter to help amplify innovative learning techniques in the form of a virtual book club group. The initiative has attracted support from other universities from around the country for its inventive teaching approach.

The UCLan online Social Work Book Group Club was initiated by social work lecturer Amanda Taylor with a handful of enthusiastic UCLan students. It has since developed into a national and international learning community, attracted funding from the

Higher Education Academy and includes seven universities participating in monthly discussions on topical social work issues prompted by social science books such as novels and autobiographies.

Students from UCLan, Lancaster University, Glasgow Caledonian University, Cardiff University, the University of Northampton, Queen's University Belfast and the University of Bradford are able to debate with practitioners and academics on Twitter via the hashtag #swbk to create a dynamic and interactive learning environment.

It is a strategy designed to support traditional teaching methods and further consolidate knowledge, learning and development within social work education programmes. The group has a visiting professor whose role is to provide students with an opportunity to engage proactively with research and as a result enables them to apply this learning to the fictional characters and circumstances being explored.

"When I made the transition from social work practice into social work education I learned very early on that reflection was not a thing of my practitioner past but was equally key to my academic work," explained Amanda. "I reflected on social work education and how I might not only teach knowledge, values and skills but also how I could demonstrate them through innovative and creative approaches. I came up with the idea of a book group as one way of achieving my aim.

"I wanted to provide other ways of adding to social work students' learning. So encouraging them to theoretically discuss novels and fiction that dealt

with some of the issues faced by social workers seemed a natural thing to do."

At one of the book group sessions, invited author Deborah Morgan joined the UCLan social work students to discuss themes from her debut novel 'Disappearing Home'. The book tells the story of the tough childhood of Robyn, a 10-year-old girl, growing up in a Liverpool tenement block in the 1970s in a family where domestic violence was a significant issue.

Deborah said: "I was able to share how I planned the book, created the characters, the research I did and the themes that run through it which the students can relate to their social work studies. It has a much wider reach than a classroom event and attracts a diverse audience from first year students through to highly experienced practitioners and academics."

UCLan social work student Becky Evans added: "Simply connecting to Deborah on Twitter added another dimension to our learning experience and the ability to network and share with others online made the whole experience really powerful. The book club helps us to relate theory and practice in a fun and stimulating way and speaking to Deborah about her book raised an interesting and topical discussion."

Amanda concluded: "We circulate details of the events on Twitter and hold coincided discussion, which is live streamed by UCLan's digital team, so that as many people can get involved as possible. The potential for fiction to be employed alongside academic texts and discussing it using online forums such as Twitter, offers real potential for the future and delivers a learning experience which is not easily replicated within the lecture theatre."



"I wanted to provide other ways of adding to social work students' learning. So encouraging them to theoretically discuss novels and fiction that dealt with some of the issues faced by social workers seemed a natural thing to do."

UCLan's Amanda Taylor, Senior Lecturer, School of Social Work.



# Evolving course portfolio sees launch of prestigious medical degree

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“The University has a long-held ambition to develop an undergraduate medical programme which builds on the phenomenal success and great reputation of its undergraduate and postgraduate dental and allied health programmes.” Professor StJohn Crean.

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For many years UCLan has been at the forefront of developing educational programmes with a global appeal. From journalism, forensics and sports science to more recent additions such as architecture, pharmacy and dentistry, the University continues to focus its energies on developing programmes which not only fulfil skills needs but which are also industry accredited.

In 2013 the University announced the launch of a self-funded undergraduate medical degree programme, available within the School of Medicine and Dentistry.

Commencing in September 2015, spaces on the five-year Bachelor of Medicine and Bachelor of Surgery (MB BS) programme are limited to 35 international, self-funded students.

During their degree, the would-be clinicians will study medical sciences along with clinical and communication skills at the Preston and Burnley Campuses. Right from the start of the course students will have the opportunity to have direct contact with patients.

The small cohort means that students will also be assured of significant amounts of contact time with their tutors as well as easy access to all the necessary support services.

UCLan will work in partnership with East Lancashire Hospitals NHS Trust (ELHT) which will provide the majority of clinical placements, with Lancashire Care Foundation NHS Trust, Lancashire Teaching Hospitals Foundation NHS Trust, and Bridgewater Community Healthcare NHS Trust providing the remainder. Primary care placements will be provided in local general medical practices and community settings servicing the significant health needs across East Lancashire.

UCLan has wanted to introduce an undergraduate medical programme for many years, to sit alongside and complement its successful courses for future health professionals in the University, including nursing, dentistry and physiotherapy. Now with the launch of this new degree, the University offers a complete range of courses, from undergraduate through to postgraduate, promoting a holistic, multi-disciplinary, inter-professional approach to teaching and learning in the healthcare sector.

Professor StJohn Crean, a clinician with specialisms in oral and maxillofacial surgery, joined the University in 2009 and was appointed to the role of Dean of the newly-formed School of Medicine and Dentistry in July 2013. Since then, launching the new course has been one of his key priorities: “The University has a long-held ambition to develop an undergraduate medical programme which builds on the phenomenal success and great reputation of our undergraduate and postgraduate dental and allied health programmes,” he explained.

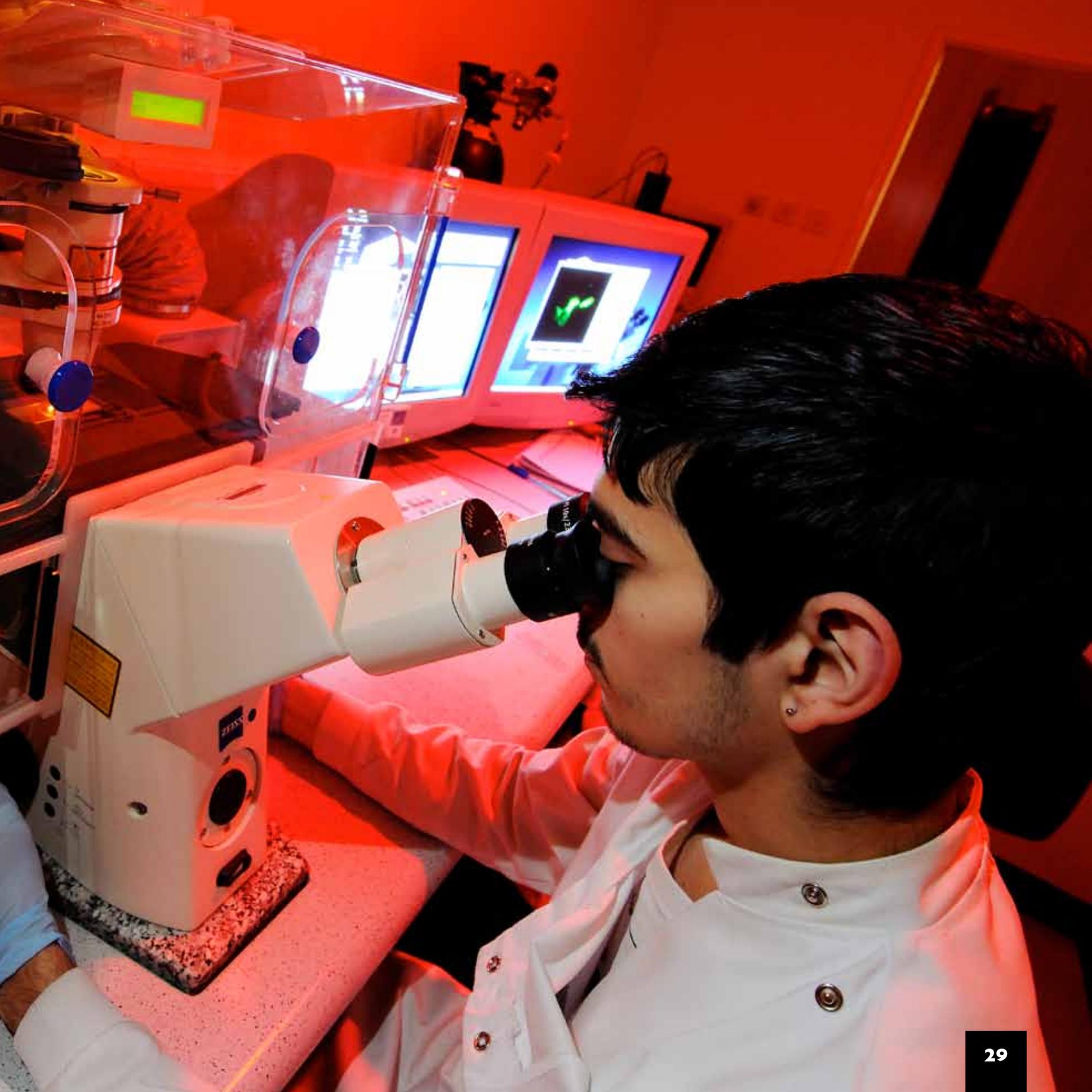
UCLan has a strong track record in the development and delivery of innovative courses such as the undergraduate dental programme which started in 2007 and which has now produced almost 100 new General Dental Council (GDC) registered dentists. That programme was developed in line with GDC requirements and, likewise, the MB BS programme has been developed in line with the General Medical Council quality assurance process.

Professor Crean added: “The students will receive top quality teaching in state-of-the-art buildings and their clinical placements will be based in the very heart of an area with a diverse population and which has significant health inequalities. It will extend the reach of medical education and research throughout the county.”

Dr Damien Lynch, Director of Undergraduate Education at ELHT, said: “East Lancashire Hospitals has a longstanding tradition of providing high quality medical student training. We are really excited about ELHT becoming a University Teaching Hospital associated with UCLan and see this development as vitally important for the health economy. It will raise the profile of East Lancashire in many ways and is an excellent opportunity for recruitment across all disciplines and specialties.”



A focus on employability has always been at the heart of UCLan's culture. Our ability to maximise potential to create the self-motivated, self-confident and self-managed leaders of tomorrow is enabling our graduates to excel in their chosen professions. Over 90 percent are in employment or further study six months after graduation, helping to make a real difference to economies and people's lives across the world.





# Creating a new generation of graduate leaders

No graduate needs reminding that today's global employment market is as competitive as ever with employers looking beyond academic achievement when considering applicants for a job or an internship opportunity.

Graduates, particularly those with aspirations to lead organisations, increasingly recognise that effective leadership requires them to develop an understanding of international issues and global insight.

In rolling out its graduate leadership development strategy, 2013 saw UCLan unveil two distinct, but interconnected, programmes. The first of these, the UCLan Graduate Development Programme, has been designed to provide an introduction to leadership and assumes no prior experience or knowledge of the subject. It is open to all students irrespective of their academic course or level of study and combines leadership with global study through delivery at UCLan Cyprus. Groups of up to 30 students travel to Cyprus each week and between October 2013 and June 2014 nearly 600 undertook the three-day programme.

The initiative is delivered through an experiential learning approach and is designed to engage students in a critical, self-reflective process exploring leadership, leaders and their own leadership potential within the context of life-long career and personal development.

UCLan staff, both from Cyprus and the UK, work as a team to deliver the course, facilitate the students' learning and provide supportive individual feedback.

Dr Lorraine Dacre Pool, Senior Lecturer in Employability, played a leading role in devising the programme. She said the benefits of the course were wide ranging: "In addition to the learning that takes place in the classroom and through individual reflection, the programme is designed to support and help students develop self-confidence, team working and leadership skills outside of the classroom.

"Being overseas means students are confronted with a huge range of additional challenges such as living in communal accommodation, preparing communal meals, arranging leisure activities and organising their lives in an unfamiliar setting."

And there are benefits for UCLan lecturing staff as well. Angela Kilpatrick, Lecturer from the School of Language, Literature and International Studies, said the Cyprus visit was one of her most rewarding and enjoyable experiences at UCLan. "As a lecturer it has helped me to get to know my students better and build more of a rapport with them. This has helped increase student engagement and enjoyment in the classroom.

"Each student has clearly come away with something from the trip which will enhance their employability, whether that's a greater insight into their strengths and weaknesses, improved confidence or better social and interpersonal skills."

Single mum, and mature student, Jo Davies, 37, was among a group of 18 students from the School of Health who recently undertook the programme. It was the first time she had left her six-year-old daughter, but the transition was made easier by the superb surroundings the NHS worker



of 19 years found when she arrived in Cyprus. She said: "I am an assistant theatre support worker, still working part-time as well as studying adult nursing full-time.

"When the opportunity arose to go to Cyprus on this programme I was unsure because of my childcare commitments. I toyed with the idea but I'm glad I decided to go. I think it's a great idea to take people out of their usual surroundings and comfort zone." It is intended that students undertaking the introductory programme will be encouraged to apply for the UCLan Future Leaders Programme.

Designed for and targeting high performing second year students, the programme aims to achieve accreditation from the Institute of Leadership and Management. Participants are given the opportunity to explore the social, political, economic and personal dimensions of leadership through theoretical, experiential and applied learning opportunities. As an integral part of the University's graduate employability offer it aims to stretch and challenge students.

"The ethos of the Future Leaders Programme is to hone students' leadership potential," said Janet Bird, Principal Lecturer and Programme Leader.

Of 120 applicants, 100 were taken to an army training camp to assess their leadership potential. Of these, 60 were interviewed with 40 being recruited on to the 14-month programme which started in October 2013. Students study every other week for about five hours over a 14 month period. Activities include talks from high profile leaders including Ann Jordan, the High Sheriff of Lancashire, and Gary Doherty, the CEO of Blackpool Teaching Hospitals. As an added bonus the students are given the opportunity to work shadow these leaders.

Additional sessions included in the intensive programme relate to personal development, employability, enterprise, emotional intelligence and careers guidance.

Janet added: "During the summer the students will take part in a week-long taught residential where they will work on some strategic University issues and feed back to an invited audience when they return. They really are an amazing group of dynamic, highly motivated and inspirational students from across the University."

Jake Donnelly, a student from the School of Art, Design and Performance, said: "The course has been great with every lecture being useful and fun, especially the activities. As I'm a naturally quiet person the programme is challenging me to voice my opinions more often. The whole experience has been really useful."

Early indications suggest that the inclusion of both leadership programmes have made a real impact among students from across the University's diverse student base. Following a full evaluation the University is likely to increase the numbers of students undertaking these programmes in 2014/15.

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**"Each student has clearly come away with something from the trip which will enhance their employability, whether that's a greater insight into their strengths and weaknesses, improved confidence or better social and interpersonal skills."**

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# Resourceful graduate film-maker makes Oscars debut

Across the globe talented UCLan alumni continue to make their mark. In 2013 a high profile example came in the form of an up-and-coming film-maker who rubbed shoulders with Hollywood's finest at the Oscars.

Mark Gill, who graduated in 2004, celebrated after his debut film was nominated for 'Best Short' at the movie industry's most glamorous night.

With a little help from Kevin Spacey, the resourceful UCLan alumnus secured Tom Hollander and Sherlock star Martin Freeman as the leads for his film, *The Voorman Problem*.

The 12-minute production follows a psychiatrist (Freeman) who is sent to a prison to examine an inmate (Hollander) with a peculiar affliction – he believes he's a god.

Reflecting on his time at UCLan Mark commented: "Looking back, the UCLan course gave me a solid foundation in the film industry; it's where it all started for me. I've had some great support at UCLan from tutors who championed me from the very beginning and showed me how and why we make films."

And although on this occasion the UCLan alumnus was unable to emulate the achievement of fellow Brit Steve McQueen, Mark is no stranger to success as the film also won a BAFTA nomination and was screened among the official selections at more than 40 film festivals. During his studies in Preston Mark also won a Royal Television Society award for Best Student Documentary.

He continued: "My advice to anyone starting out in the industry is to get as much work experience as possible and have a drive and enthusiasm to succeed. You will be told 'no' 99 percent of the time but eventually you will find one person who will say 'yes'; it's a passion for what you do that will keep you going."

Mark Gill pictured on a recent visit to UCLan.

# Representing the under-represented

UCLan has built a fine reputation for helping people from all walks of life achieve their career dreams and in 2013 a student was selected for a prestigious law scholarship which aims to address the under-representation of black males from low-income households in large commercial law firms.

Kofi Madden from Wythenshawe in Manchester was one of only six students in the country to be chosen for the inaugural year of the Freshfields Stephen Lawrence Scholarship programme.

Set up in memory of Stephen Lawrence by international law firm Freshfields Bruckhaus Deringer, the programme aims to provide an unprecedented opportunity for the selected candidates to receive practical support and guidance from Freshfields, helping to secure a high-achieving career in law.

Kofi, a second year law student, expressed his pride at being selected for the scheme: "Being the first member of my family to attend university was a big step, but when I found out I'd been selected for the Freshfields Stephen Lawrence Scholarship I was in disbelief.

"The fact the scholarship is in honour of Stephen Lawrence makes it even more appropriate because

I can really relate to his story. Since starting on the scholarship the goal of becoming a solicitor has never been closer."

Kofi arrived at UCLan as a foundation year student before embarking on the three-year degree programme. He juggles his University and scholarship studies with working part-time at a Manchester hotel helping with conferences and events.

"It's a big commitment but I know it's worth it," he added. "I've had some great feedback from my mentors at Freshfields and can see I've improved over the last few months. Prior to the scholarship I'd never set foot in London; now there is a real chance I'll be working there for an international law firm in only a few years' time.

"I've always been inspired by my mum who has always pushed me to achieve my dreams and supported the choices I've made."

All scholars receive a tailored personal and professional development programme focusing on written, presentation and numeracy skills and commercial awareness; interview coaching and career guidance; one-to-one mentoring; commercial familiarisation during university holidays; an alternative route to interview for

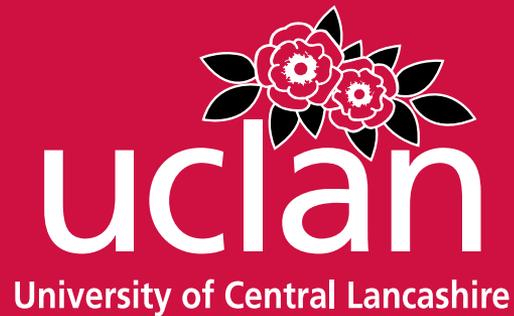
a training contract at the firm and a £3,500 contribution towards course and associated study-related costs. Freshfields is also collaborating with clients and partners, including Goldman Sachs, to deliver aspects of the programme.

Baroness Doreen Lawrence of Clarendon OBE said: "I am thrilled to be working with Freshfields to offer these six gifted candidates such a transformative opportunity at the beginning of their legal careers.

"My personal ambition is to help provide opportunities for people to become the best that they can be. I have met the scholars and am sure that the Freshfields Stephen Lawrence Scholarship will enable them to build successful careers."

Freshfields' Senior Partner Will Lawes said: "We are proud to welcome such talented and driven individuals to our scheme. Our scholarship's aim is to genuinely open doors to the legal profession and at the same time ensure that we have a rich talent pool of candidates who will achieve top positions in the long-term.

"We are looking forward to working with each of our scholars as they embark on building a successful career in law."



At UCLan, we believe in establishing collaborative partnerships with our business customers. What sets us apart is our strong reputation for marrying academic excellence with applied business research, entrepreneurship and innovation.





Melissa Sutcliffe, Head of Research at Harrison Spinks, pictured with UCLan's Professor Jim Richards.

# Putting a (mattress) spring in your step

## UCLan researchers help perfect revolutionary running shoe

Helping businesses to improve their competitiveness, make strategic change or develop new technologies and products is a core aspect of UCLan's mission.

The University works hard to build links with local, regional, national and international businesses, sharing and exchanging expertise and research to help provide a competitive edge.

In 2013 researchers within UCLan's Allied Health Professions Research Unit teamed up with Leeds-based bed manufacturer Harrison Spinks to help perfect the design of a new running shoe which, for the first time, incorporates springs into the shoe's sole.

"Over a given year, injury affects over two thirds of recreational runners," explained Professor Jim Richards, Research Lead within UCLan's Allied Health Research Unit, part of the School of Sport, Tourism and the Outdoors. "This is still a huge problem; even with all the latest advances in running shoes, we are still seeing a high injury rate. What we wanted to do was to put things in place to reduce the chance of injury."

Since the 1980s, running shoes have featured cushioning which acts as a damper to help prevent injury caused by the impact of the foot striking the ground. It is the intensity of the shock loads generated at this point of contact that are linked to the development of running-related injuries such as knee pain, shin splints and stress fractures.

Professor Richards added: "These shock loads can exceed a rate of over 70 times your bodyweight

per second. When your foot strikes the ground this force travels through your ankle and into your knee joint and these shock loads have been linked with impact related injuries."

The new shoes incorporate revolutionary technology in the form of e-springs, developed by Harrison Spinks. They consist of 34 coiled micro springs which are distributed under the heel and toes within the shoe's sole. To prove the effectiveness of this technology, the team from UCLan ran extensive tests.

"If you had a car suspension with just a damper and no spring in it then you'd have a very bumpy ride," continued Professor Richards. "Therefore having a shoe that incorporates both provides a much improved shock-absorbing system compared with existing technology. Our research shows that the new shoe reduces these shock loads to values which are lower than those previously linked with impact related injuries."

Harrison Spinks Managing Director Simon Spinks, whose company picked up two Queen's Awards for Enterprise, said the link-up with UCLan had given the company a fresh direction and has helped

embed a research ethos into all areas of Harrison Spinks business. This has led to the development of a new R&D laboratory.

Simon explained: "The Harrison Spinks strategy has always been to be different and better, reinventing the mattress by improving all of its product components. Our relationship with UCLan was instrumental in developing and improving this product. The expertise and support UCLan was able to provide has played a major role in the launch of our new technology into the footwear market.

"This is exactly what universities like UCLan should be doing, there is no substitute for testing technology like this than in the marketplace. The benefits of the project are two-way; it is a transfer of knowledge which benefits both the University and the manufacturer."

Melissa Sutcliffe, a biomechanics graduate, was employed via a Government-funded Knowledge Transfer Partnership to coordinate the project and act as the crucial link between Harrison Spinks and the University. She has since been employed as Head of Research at Harrison Spinks with a remit which includes footwear development as well as other areas of the company's product portfolio such as mattresses, car seats and furniture for both the office and home. "Being given the opportunity to work on such an innovative project has been a fantastic experience," she said. "The trainer is now in its final prototype stage and via our commercial partners Intersport, we hope to roll out the shoes to stores across Europe by the autumn of 2014."





Crucial to the sustainability of the business incubation process is the free advice provided by local solicitors, accountants and business specialists

# Free enterprise

When something is free there's usually a catch. Try telling that to some of the Lancashire businesses who have benefited from the specialist advice clinics run by UCLan's Northern Lights business support programme.

The figures are quite staggering; the North West's digital and creative sector is the second largest in Europe consisting of 31,000 businesses, employing around 321,000 people and estimated to be worth £16 billion to the UK economy.

In the UK as a whole the creative industries account for just over eight percent of the UK's workforce with UCLan nurturing a pool of sought-after graduate talent in this area. In recent years many of these students and graduates have formed their own successful businesses under the guidance of UCLan's Northern Lights business support programme.

The initiative, acclaimed by none other than Prime Minister David Cameron when he visited UCLan in 2013, provides clients with a clear understanding of business regulations, finance and the plans required to begin trading legally, safely and profitably.

Crucial to the sustainability of the business incubation process is the free advice provided by local solicitors, accountants and business specialists who regularly provide one-to-one advice via Northern Lights' special advice clinics.

It's a recipe which has helped UCLan achieve some remarkable results. Over 1,000 students or graduates started a business or became self-employed in the last five years and an impressive 77 percent are still trading after two years.

Julia Stickley, Northern Lights Business Support Co-ordinator, has the task of looking after the Northern Lights business clients on a day-to-day basis. "Many of our fledgling businesses come from the creative

sector," she explained. "They are passionate about the work they do but it's crucial they receive the right level of support and guidance to turn their creativity into a viable and sustainable business.

"Making verbal contracts can be fatal. Without the proper guidance, fledgling businesses can leave themselves wide open which is why we are so grateful for the special advice provided by professionals from Napthens Solicitors, Moore & Smalley Chartered Accountants, Forbes Solicitors and intellectual property specialists Appleyard Lees .

"At Northern Lights we pride ourselves in the way we nurture enterprising people to create sustainable business ventures. The first 12-18 months is a critical period for any new business. By making sure our clients receive the best advice and support possible, to cover all the basics when setting up their businesses, we ensure they avoid most of the pitfalls that so many new businesses experience. Recounting a few horror stories within our workshops and special advice clinics certainly helps to get the point across!"

During the summer of 2013, UCLan graduate Neil Allen registered on the Northern Lights programme in order to develop an enterprise concept linked to the accrediting, mentoring and coaching of more marginalised and disenfranchised members of local communities. His ideas were aligned to his degree studies at UCLan in community leadership and his extensive experience of working within the public services.

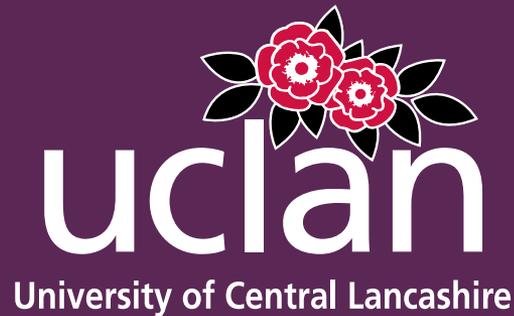
"The Northern Lights team supported me with great enthusiasm and knowledge," explained Neil. "I attended the core workshops programme

and engaged with other aspects of the Northern Lights services such as networking meetings, social enterprise and action learning events. I found the services of the specialist advice clinics to be very useful, which in my case quickly provided reassurance regarding a particular query connected to a potential taxation issue."

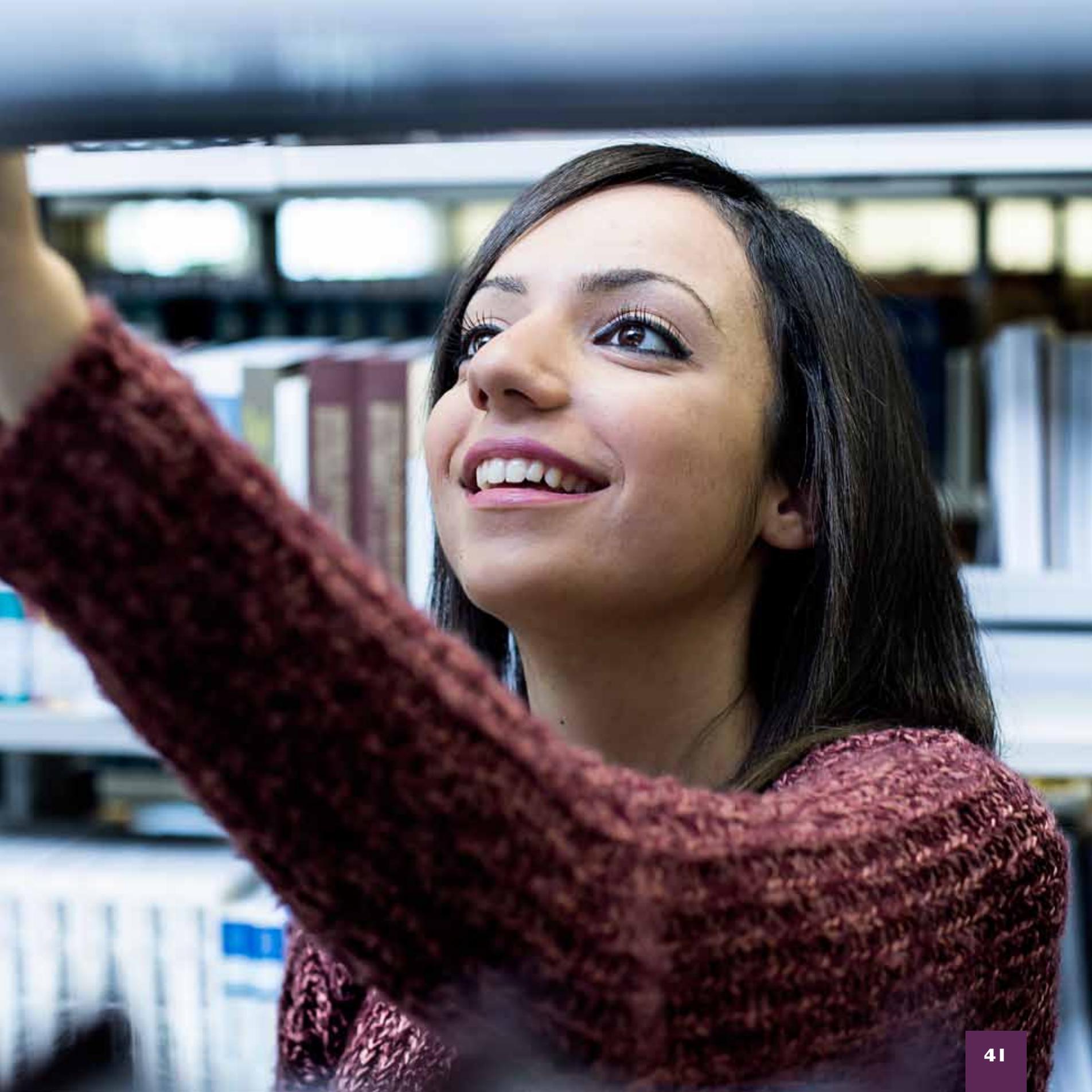
Benjamin Dredge, Associate Solicitor in Corporate and Intellectual Property at Napthens, is also a graduate of UCLan and said it was fantastic to see the University taking advantage of the support offered by the company. "Northern Lights together with the University are key employers and contributors to the local business economy," Benjamin said. "So it's of value to Napthens, as Lancashire's leading commercial law firm, to work with them, assisting and advising new projects and businesses at the early stages of their development.

"It also enables me to assist current and former students of the University where I studied which gives an additional sense of achievement for me personally."

Julia added: "In terms of business start-up we place a strong emphasis on 'post' start. Metaphorically we hold our clients' hands but we're not intrusive. All our clients talk to each other, many face the same issues and are happy to share advice. If a client needs professional guidance then our specialist advisors give it free of charge, quickly and effectively. The fact Northern Lights operate under the University umbrella has enabled us to develop an extremely productive, professional and open culture and this really is the secret of our success."



UCLan is an international University with global reach and ambition. We enrol students from over 100 countries and have partnerships with 125 international institutions located across the world. In Lancashire the result of our strategy has been the growth of an exhilarating cultural melting pot which breeds open minds and internationally aware global citizens.





# New international strategic partnership leads the way forward

The Government is forecasting that numbers of international students entering UK higher education will grow by 15-20 percent over the next five years. UCLan is no stranger to the internationalisation agenda and is well positioned to take advantage of the future opportunities presented, following its international work over many years.

A growing aspect of the University's new international strategy is to utilise its experience in the delivery of transnational education by establishing a small number of 'super franchise' collaborative partnerships specialising in particular areas within the course portfolio.

These arrangements involve an initial partnership with an international higher education provider which if successful could then lead to badged UCLan teaching buildings or even a small branch campus.

It's UCLan's commitment to China which is perhaps best known and it is within that country that following receipt of Chinese Ministry of Education approval, together with its partner Hebei University (HBU), the University has created the 'Hebei/UCLan School of Media, Communication and Creative Industries'.

HBU is located in Baoding, 36 minutes by the new fast train from Beijing. The city is becoming a commuter base for Beijing and is in a province with a total population of over 77 million people. HBU is the top institution of over 100 in the province.



Initially the joint School will have non-independent status, meaning that although it will be a separate entity from HBU it will be wholly owned by it. The School will have 800 students, recruiting 200 per year for the four-year duration of the programmes. The intention is to grow to 1,600 students and then to focus on a broader range of subjects, targeting science in the second wave. When successfully operating at the expanded level, the School will apply for independent campus status.

Commenting on the partnership, Deputy Vice-Chancellor Dr Graham Baldwin said: "This is the most significant development for UCLan in China within the last 10-15 years. It's taken less than 24 months from our first visit to HBU to gaining official approval for the HBU/UCLan School, an astonishing achievement based largely on the concerted efforts of both institutions' staff to build this relationship.

"UCLan is one of the first UK Universities to gain approval for a project of this nature under China's new Ministry of Education policies and the only one in Hebei province. When at full capacity, UCLan will be one of the largest providers of British Higher Education in China."

Vice President Wang Fengming from Hebei University added: "The founding of the HBU-UCLan School of Media, Communication and Creative Industries is a significant milestone in the internationalisation of Hebei University. It will significantly enhance our comprehensive strength and promote the future development of our institution. The establishment of this school received great support from the Chinese Ministry of Education and the provincial government and sets a good example for the educational reform of not only Hebei but also the whole of China."

The courses offered will initially be from UCLan's School of Art, Design and Performance and the School of Journalism and Media. Students enrolled will have the option to complete their whole degree in China although it is anticipated that a significant majority will travel to UCLan UK for some or part of their studies. The School will recruit tier one and tier two students from Hebei province, the highest achieving students in the Gao Cao entrance examination.

Programmes will commence in September 2014 in a building specifically allocated for the new School on HBU's new campus. As part of UCLan's contribution to the partnership, the University will help to develop dedicated facilities such as student learning zones and associated computer and library facilities, equivalent to the specification of the central UCLan campus in Preston.

# In search of the Aurora Borealis



# Students recount amazing journey of educational discovery for new book.

UCLan's sector-leading International Travel Bursary has enabled thousands of students to add a global experience to their UCLan education, travelling to remote locations well off the radar for even the most seasoned of explorers.

In 2013 eight students and one lecturer journeyed to Bjorkliden, a snowy haven 150 miles north of the Arctic Circle and one of the last true wildernesses in the world, to view the Northern Lights and gather breathtaking material for a UCLan Publishing project.

The group, who were studying photography, creative writing, publishing, film production and astrophysics at the Preston Campus, spent a week taking photographs, shooting footage and writing stories for a documentary film and book concerning the facts and fiction behind the Northern Lights.

Debbie Williams, Head of UCLan Publishing, said: "I've never been involved in such a memorable project. The students worked so hard to capture the aurora in all its glory, often existing off a few hours' sleep so they could shoot the best footage and images. For all of us it really was a once-in-a-lifetime trip."

The project took over a year to plan and before flying out the team had to learn how to survive in harsh minus 38 degree Celsius conditions. With assistance from a specialist adventure travel company, the group acclimatised to working in six layers of thermal clothing. And arriving at their final destination wasn't easy either. It took them three flights, a bus and a dog sled to reach their Arctic Circle location.

The students worked alongside a variety of experts including the Sami People, the only indigenous population in Europe to study the Northern Lights. And if experiencing the aurora wasn't enough the students also learnt to harness husky dogs and drive a sled, braved an hour's jaw-dropping ski lift

ride to reach the aurora sky station and, when time allowed, slept in traditional Sami mountain huts.

Debbie added: "To be able to offer this international trip to students was fantastic. It's not every day you witness a breathtaking lightshow, travel at 40mph on a dog sled, cross a 70 mile frozen lake or visit an ice hotel."

Two students made it even closer to the spectacular light display as they were invited to fly over the aurora.

Assistant Project Leader Lorna Hargreaves, who was one of the lucky students, said: "I couldn't believe it when they offered us a chance to actually fly to see the aurora. It was an amazing experience which I will never forget.

"Trekking through the snow and sheltering in a Sami hut helped me to understand the conditions in which the Sami people lived in their Nordic past. It was a brilliant opportunity to experience a lifestyle far removed from my own and it gave me the opportunity to fulfil an ambition to see the Northern Lights in all their glory."

Adam Shoker, film-maker and photographer for the project, said: "It was such a huge personal triumph to have been part the team. Ten of my photos appeared in the book and my documentary is now online so it's a great highlight for my CV. UCLan's International Travel Bursary is a great scheme and one which provides real benefits to students."

'Life beneath the Northern Lights' was edited by student Lizzy Pattison. She added: "Observing the Northern Lights is a bucket list favourite with lots of people so I felt privileged to study them every night of the trip. They are indescribable; beautiful and ethereal. As student experiences go it was the best by far and without coming to UCLan I wouldn't have had this amazing opportunity. It has been life changing; I am now much more confident and happy to try new things. It's something I will never forget."

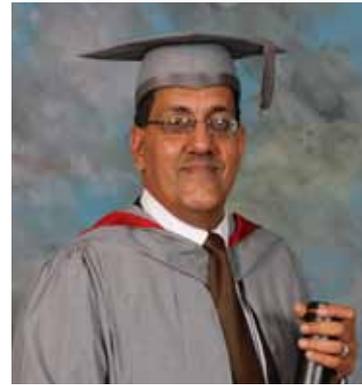


L-R: John Trower, Coach Mentor for PGDip Elite Coaching Practice Level 4, graduates Richard Agar and Denis Betts alongside Bryan Jones from UCLan's School of Sport, Tourism and The Outdoors.

# Honorary Awards 2013

The University's Degree and Award Ceremonies at Preston Guild Hall represent the climax to every academic year. Over the course of a year, nearly 5,500 graduates receive deserved recognition for all their hard work from the University, family and friends.

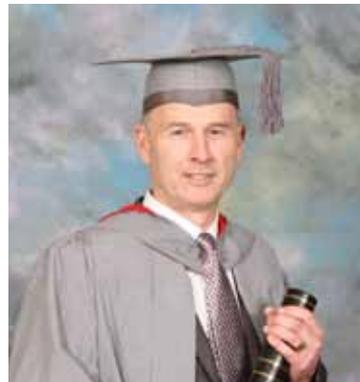
During each ceremony the University confers Honorary Fellowships on distinguished citizens who have made significant contributions to their field or who have strong links with the region. In 2013 Honorary awards were conferred to the following individuals:



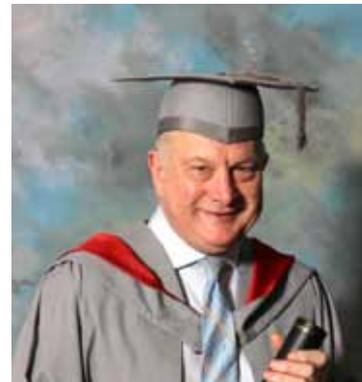
**Nazir Afzal OBE** was recognised for his role in raising public awareness of domestic violence, forced marriage and 'honour' based crimes. As the Chief Crown Prosecutor for the North West he leads approximately 700 lawyers, paralegal staff and administrators. During a 22 year career Nazir has prosecuted some of the most high profile cases in the country and advised on many others.



**Helen Clitheroe** was honoured in recognition of her contribution to British middle and long-distance running. The UCLan alumna joined Preston Harriers Running Club after discovering a love of running as a child. The proud Prestonian turned professional in 2000 and is the current European Indoor Champion for the 3000m. The British Athletics captain is also the British record holder of the 3000m steeplechase; she won the 1500m bronze medal in the 2002 Commonwealth Games and has competed in two Olympic Games for Team GB.



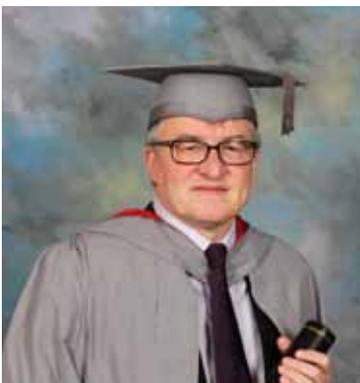
**Adrian Conboy** was acknowledged for his significant contribution to paramedic practice. The proud Lancastrian's career has spanned 39 years in the healthcare industry with 34 of those spent in the NHS Ambulance Service. The pioneering paramedic was hugely instrumental in the creation of the service and the training of its people. He worked with UCLan in 2004 to develop the first ever science-based paramedic degree programme and later became an associate paramedic lecturer.



**Ivan Day** was honoured for his ability to bring history alive using modern technology. The food historian has an international reputation for his research into British and European culinary history. As well as being a scholar, broadcaster and writer, he is also a gifted professional cook and confectioner. He is noted particularly for his recreation of meals and table settings and his work has been exhibited in museums across the globe.



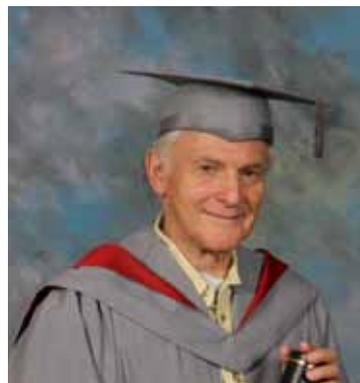
**Stella Hall** was honoured in recognition of her key role as festival director of the highly successful Preston Guild 2012. Over the past 25 years she has contributed enormously to the cultural life of the UK as a director of major festivals in London, Manchester, Belfast, Newcastle and Coventry. Through the Guild Festival Stella put Preston on the map as a place of international culture and diversity, becoming heavily involved with the University during the process.



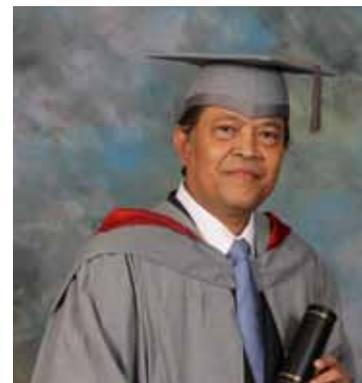
**Stephen Hodder MBE** was recognised for his major contributions to the field of architecture. After graduating from university he joined the Preston-based firm Building Design Partnership. In 1992 he formed his own practice, the award-winning Hodder Associates and went on to become the Royal Institute of British Architects (RIBA) North West Region Chairman. Stephen, who was awarded an MBE in 1998, is currently the President of the RIBA.



**Professor Mary Kellett** was honoured in acknowledgment of her significant contribution as a pioneer of children's active participation in social research. The Lancastrian worked as a social worker and a primary school teacher before embarking on her career in children's research. She established the Open University's internationally renowned Children's Research Centre and has been a huge contributor to UCLan's Centre for Children and Young People's Participation in Research.



**Professor Sir Harry Kroto** was acknowledged for his contribution to the development and history of nanotechnology. The eminent professor has been heavily involved in academia and research throughout his long career. He has worked at universities in the UK and America and was knighted for his contribution to chemistry in 1996. Later that year he was one of three recipients of the Nobel Prize for Chemistry for discovering the existence of C60 Buckminsterfullerene, the third well characterised form of carbon.



**Worawi Makudi** was recognised for his contribution to developing sporting, educational and cultural links between Thailand and the UK. For more than 40 years Worawi has been involved in Thailand's football community and in 2007 he was named the President of the Thai Football Association. During his career he has played a major role in introducing education through sport and has devoted his time and effort to build lasting links with the UK.

And they're off: Honorary Fellow Helen Clitheroe and UCLan's Dr Adrian Ibbetson put local youngsters through their paces prior to the graduation ceremony.

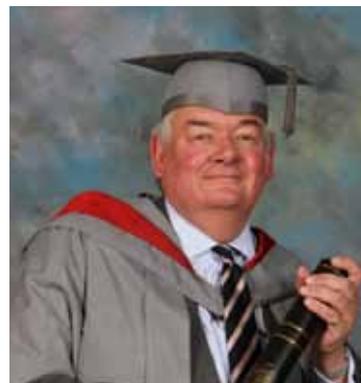




**Trevor Mather** received his award in recognition of the strong partnership he has sustained between the University and the global software company ThoughtWorks, which provides many opportunities for UCLan students both in the UK and overseas. The Leyland-born businessman has spent more than 20 years working in executive positions for internationally renowned companies. He has developed close links to LaunchPad, UCLan's pioneering business leadership programme, and has delivered a host of keynote lectures.



**John Mellor-Clark** was honoured for his substantial contribution to the development of practice-based evidence for counselling and psychotherapy in the UK. The UCLan alumnus has dedicated 25 years to evaluating the quality of psychological therapies and has been central to the development and implementation of CORE; the first standardised quality evaluation system for psychological therapies. Noted as a global keynote speaker, he has established his own specialist software business.



**His Honour Judge Anthony Russell QC** was recognised for his endeavours to widen access to the judiciary and the legal profession. With 40 years' experience of working in the legal profession he is now the senior judge in Preston. He has presided over a number of high profile Crown Court murder trials and he is influential in setting and implementing sentencing guidelines and protocols.



**Ranvir Singh** was acknowledged for her contribution to broadcasting. The Prestonian studied on UCLan's postgraduate broadcast journalism course before landing a position in local radio. She soon became a drivetime presenter before moving into local television news. In 2007 she was appointed co-presenter of North West Tonight and combined this with regular shows on BBC Radio Five Live. Last year the mother-of-one made her debut on ITV's Daybreak and she is a regular contributor to ITV's This Morning.



Graduation Day at Preston Guild Hall.

# UCLan facts and figures

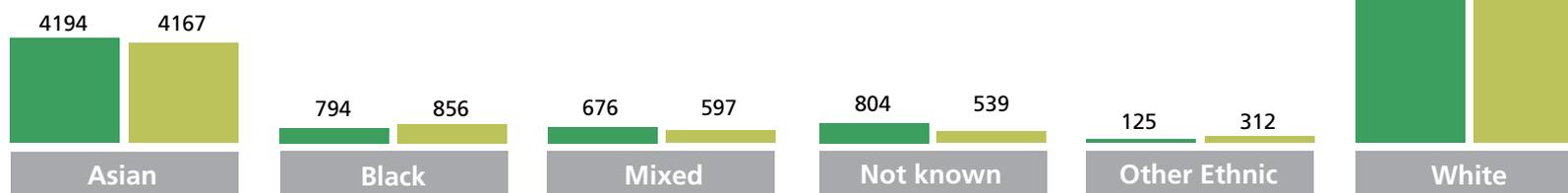
## Level of Study



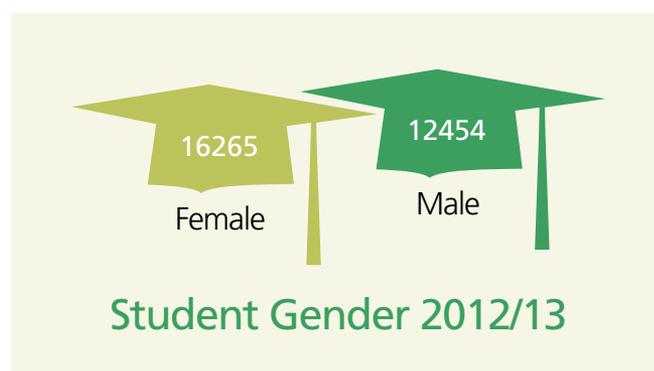
## Student Age

Student Age at 1st Sept	2011/12	2012/13
Under 18	41	13
18 to 20	11806	10396
21 to 24	7775	7376
25 to 29	3534	3364
30+	8470	7570
Unknown	1	-

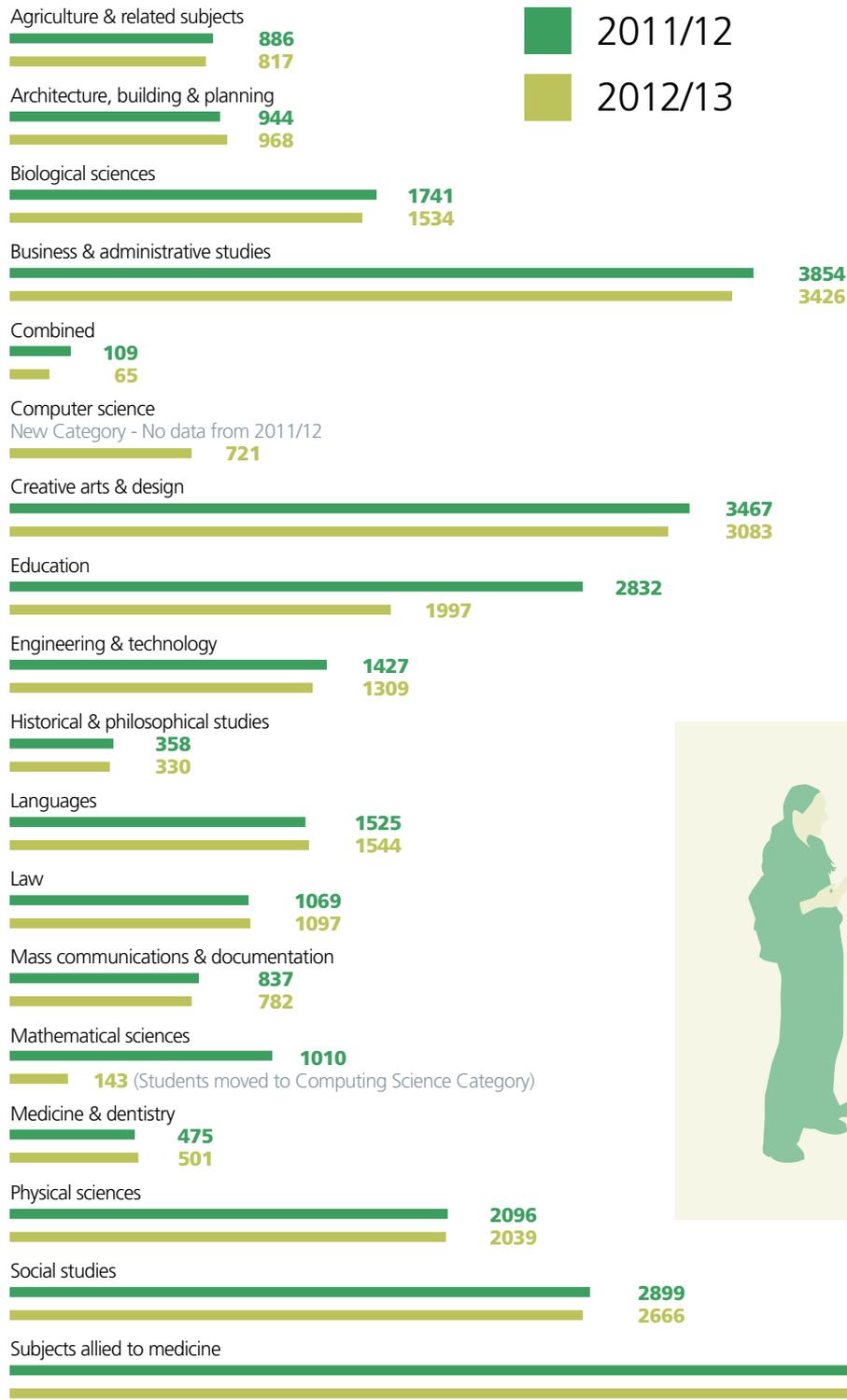
## Ethnic Group



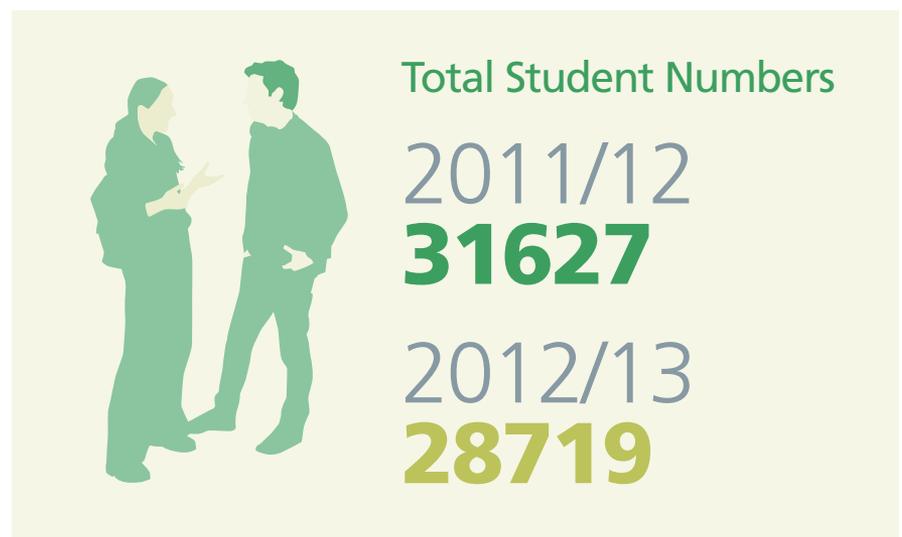
Source: HESA Student Record



## Subject of Study Grouped by principal study groups



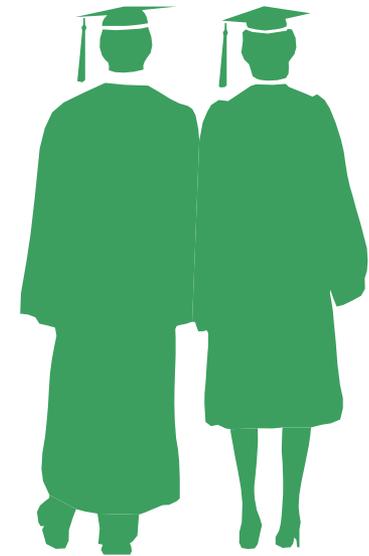
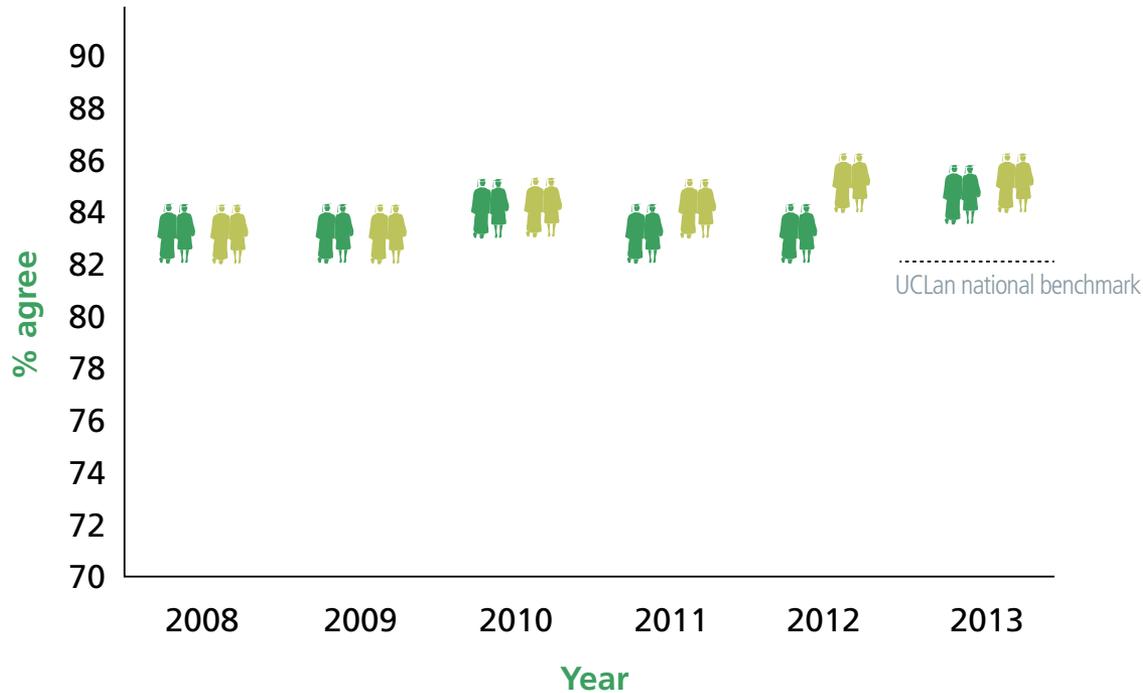
## Mode of Attendance



## National Student Survey

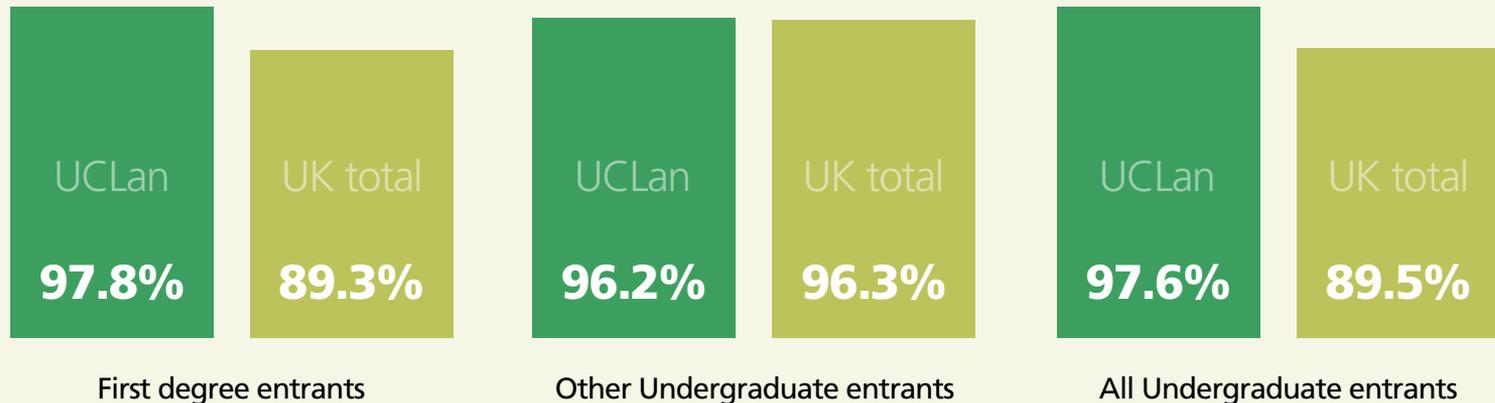
Question 22: 'Overall, I am satisfied with the quality of the course'  
 UCLan and Sector Comparison - 2008-2013

 UCLan  
 Sector



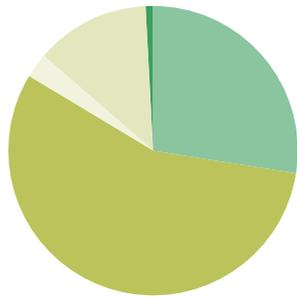
## Participation of under-represented groups in higher education

Percent of young full-time students from state schools or colleges - 2012/13



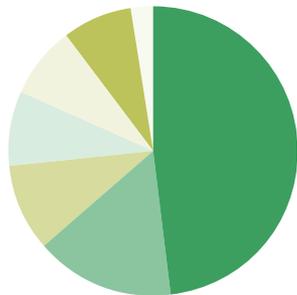
## UCLan income

Tuition fees and education contracts	<b>108,311</b>
Funding council grants	<b>53,751</b>
Other income	<b>24,804</b>
Research grants and contracts	<b>5,661</b>
Investment income	<b>1,246</b>
<b>Total income 2012/13</b>	<b>193,773</b>
Total income 2011/12	198,700



## UCLan expenditure

Academic Schools, including Research	<b>89,331</b>
Academic Support, including Bursaries & SU Grant	<b>28,606</b>
Running the Estate	<b>17,946</b>
Library & IT	<b>15,335</b>
Residences & Trading areas	<b>14,885</b>
Corporate Services	<b>14,542</b>
Other costs	<b>4,352</b>
<b>Total expenditure 2012/13</b>	<b>184,997</b>
Total expenditure 2011/12	184,102



£000

## Staff

Data based on 1 August 2013 and includes hourly paid lecturers and casuals

Academic



Management



Interns



Support



FEMALE TOTAL = 1526

MALE TOTAL = 1140

OVERALL TOTAL = 2666

£000

## Graduate and Student Start-up Businesses created at UCLan

Source: Higher Education Business and Community Interaction Survey.

2007-2008  
**126**

2008-2009  
**131**

2009-2010  
**162**

2010-2011  
**158**

2011-2012  
**192**

2012-2013  
**226**

# Harris Flights: where art meets architecture

One year on from the Preston Guild the city saw the opening of the Harris Flights, a dramatic temporary art installation, creating a staircase rising from the Flag Market to the first floor balcony of the iconic Grade I Listed Harris Museum & Art Gallery.

The stunning architectural intervention was the brainchild of UCLan's Professor Charles Quick, co-curator of 'In Certain Places' which has been transforming city spaces through a series of temporary public artworks and events since 2006.

As well as being a place to socialise for four weeks during August and September of 2013, the Harris Flights brought the city together as it became a focal point for live performances, contemporary art installations, workshops, demonstrations and talks.

Explaining the thought process behind his idea Professor Quick said: "The unique architecture of the museum, with a balcony and side entrances to the building instead of a front entrance, creates the perception of a barrier, making visitors seem detached from the interior of the building when standing in the Flag Market.

"The Harris Flights lifted that perceived barrier and also enabled the local community to have access to the podium, sharing the opportunity to see Preston from the viewpoint of the privileged few."

Harris Flights was commissioned by In Certain Places working in partnership with Research Design. It was supported by Arts Council England and by the partnership of the Harris Museum and Art Gallery, Preston City Council and UCLan.

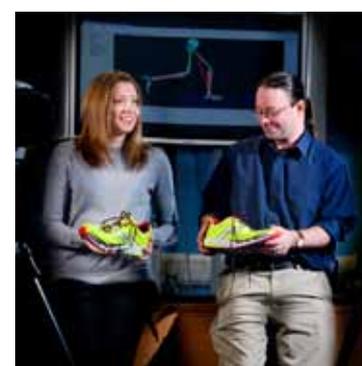




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*Designed and produced by UCLan Marketing:  
Editor - Chris Theobald, PR & Events  
Design - Gareth Fishwick, Marketing Communications  
Key photography - Karl Hopkinson*



Produced using elemental chlorine-free paper manufactured from sustainable forests