



# ANNUAL REVIEW

2010 - 2011



## ANNUAL REVIEW OF THE YEAR

by Professor Dame Nancy Rothwell, President and Vice-Chancellor

This Annual Review covers the first full year of my tenure as President and Vice-Chancellor. It has been an eventful year in which the University has celebrated many achievements and made good progress on many fronts, despite the very fast-changing and uncertain external environment.

It is a real tribute to my colleagues from across the campus that, despite the obvious external pressures, the University ends this turbulent year with a continuing focus on our strategic priorities and in such a healthy financial state.

The core driver for all of our activities during 2010-11 was our "2015 Agenda" and, as you will see below, we continue to make good progress against many of the key performance measures outlined in that document.

During the past year, we have also begun to identify our future priorities for the next decade. We conducted a major University-wide consultation on our ambitions for the future and the final *Manchester 2020* strategic vision document was enthusiastically endorsed by the Board of Governors at their meeting in November 2011. Work is now underway to prepare the enabling strategies, performance measures and operational plans to ensure that this vision becomes a reality.

The University continues to perform well in the "Academic Ranking of World Universities" carried out annually by the Institute of Higher Education in China's Shanghai Jiao Tong University, which we regard as the primary

indicator of our international standing and competitiveness. In the 2011 Rankings, we rose six places on the year to 38th position – a rise of some 40 places since the merger in 2004 when the Victoria University of Manchester was ranked in 78th position.

The highlight of the University's achievements in 2010-11 was undoubtedly the award of the Nobel Prize for Physics to Professor Andre Geim and Professor Konstantin Novoselov for their pioneering work on graphene, which was discovered at this University in 2004. Andre and Kostya have barely been out of the media and public spotlight since their award was announced in October 2010 and this high profile has presented them and the University with many exciting opportunities for investment and collaboration.

The University itself won the Queen's Award for Enterprise, the most prestigious corporate award for British business. It won the award in the "international trade" category for its outstanding achievement in more than doubling annual overseas income over the last six years. The award demonstrates that the University's reputation truly spans the globe and that thousands of international students recognise the quality of education, the value of a Manchester degree and the support and guidance that we are able to offer.

In November 2011, we also heard that the University had won a Queen's Anniversary Prize for Higher and Further Education in the Queen's Diamond Jubilee Round for our: "World-leading

applied research and skills training for the varied needs of the nuclear industry", but that is strictly outside of the scope of this review – so more of that in the next Annual Review.

On the broader research front, our Research Grant and Contract (RGC) income rose very slightly compared with recent years. In part, this is a reflection of the fact that RGC funding is coming under increasing pressure from public funding austerity, but we also acknowledge that we are not performing quite as well as our competitors in this crucial area and must do better. It also illustrates the urgent requirement for the University to diversify its research funding streams, especially from non-government sources.

Within the University, we have been using the intelligence gained from our internal Research Profiling Exercise to assess the quality of our research and to begin to prepare for the national Research Excellence Framework, which will require submissions by November 2013, and to develop a comprehensive research strategy that begins to address the issue of how we can significantly increase the proportion of our research that is world-class and world-leading.

The newly established Manchester Doctoral College (MDC), which was formally launched on 1 August 2011, aims to optimise the research experience for postgraduate research students and supports the University's research strategy by helping to develop and nurture the careers of excellent researchers and to increase the number of quality research outputs.



We continue to work hard to improve the student experience for all of our students. It is a major concern, however, that the investment of time, energy and resource in improving the student experience is not yet being reflected in the results of the National Student Survey (NSS), which is conducted amongst final-year students across the UK. The NSS results for this University in 2011 were, once again, disappointing with the overall result for student satisfaction at 79%, which is below our benchmark figure (84%) and very much lower than most of our comparable institutions.

NSS performance across the University is very variable. The detailed results show some encouraging signs of improvement in specific areas of teaching and learning, such as transparency of assessment, quality of feedback, academic support and staff contact and some of our courses have performed exceptionally well, with many subjects demonstrating more than 90% student satisfaction. But our overall performance remains unacceptable.

We are addressing the quality of our student experience as a matter of urgency. We have appointed two new Associate Vice-Presidents to work in this area and established a new Directorate of Student Experience to bring together all the administrative, professional and support services for students. We are radically redesigning the way in which some courses are delivered and appointing new staff in some schools to increase the numbers available to teach on some courses. We are also directing significant further investment to student

support activities, new lecture theatres, laboratories and student study facilities. Construction is well underway on the "Learning Commons", a new student learning facility at the heart of the campus, which will be named in honour of Alan Gilbert.

We have begun to invest real substance in our proposal to establish a University College, which aims to improve the educational experience of our students by encouraging their development both as mature adult learners and as contributors to society in general. The Academic Director has now been appointed and the first courses will be made available to students in September 2012.

2010-11 was also another good year for home and international student recruitment. The University remains an enormously popular destination for undergraduate and postgraduate study, a reputation that is bolstered by surveys from employers commenting on the attractiveness and employability of our graduates. There has undoubtedly been "knock-on" impact on applications of the heated political debates around student funding and immigration rules for international students, but this does not appear to have affected applications to this University too severely.

As a University, we are now beginning to invest some real substance in our Goal Three activities and the "social responsibility" agenda. I have been personally leading on this issue and we have made good progress by building on our recent successes in public engagement and

widening participation. We have opened a stunning new Discovery Centre at Jodrell Bank and we have launched an innovative package of scholarships and widening access activities that have been welcomed by the Office for Fair Access. We have appointed a new Associate Vice-President and a new Director of Social Responsibility to take this agenda forward and we have identified six "Flagship Projects" that will showcase the University's distinctive work in this important field.

I am pleased that in the face of significant uncertainties – not least the global financial climate and the impact next September of the £9,000 home undergraduate fee – the main focus of this University's attention during the academic year 2010-11 was on delivering world-leading research and first-class learning experience for our students.

We have also spent some time during the last year discussing and determining our ambitions and plans for the next decade and there can be no clearer signal to our colleagues and the wider world that we intend to continue being an ambitious University and that will invest in its future success.

**Professor Dame Nancy Rothwell**  
President and Vice-Chancellor



## MANCHESTER: THE GLOBAL HUB OF GRAPHENE

The world's eyes are on Manchester to see what's next for super-material graphene, following the award of the Nobel Prize for Physics to the two men who discovered the material last year – Professor Andre Geim and Professor Konstantin (Kostya) Novoselov.

The interest and excitement generated by the award was substantial, attracting attention from the scientific community and media from across the globe, as the two physicists from the School of Physics and Astronomy received the award from King Carl XVI Gustaf of Sweden at a formal ceremony held in Stockholm.

In October 2011, Chancellor of the Exchequer George Osborne visited the University and announced a £50 million investment to create a new Graphene Global Research and Technology Hub, which should place Manchester at the heart of the drive to commercialise graphene.

Professor Dame Nancy Rothwell, President and Vice-Chancellor of the University, said: "The announcement is fantastic news for the University and fantastic news for the City of Manchester. It is also timely, because it is almost exactly a year since the Nobel Prize was announced. Over this time, the pace and scale of graphene research in Manchester has escalated dramatically, and its commercial potential is growing by the day."

Graphene is the world's thinnest, strongest material, which is one atom thick. Among other traits, it can be made magnetic and conduct electricity. One of the world's most versatile materials, its potential applications include touchscreen and roll-up mobile phones, paper-thin bendy TV screens, super-fast internet connections and the next generation of transistors.

The material has been studied on a theoretical level for 60 years, but the two University scientists



were the first to exploit its remarkable qualities in 2004.

A full business case for the new Hub is being developed by the Engineering and Physical Sciences Research Council (EPSRC), in partnership with the Technology Strategy Board (TSB). Work leading to the award of the Nobel Prize was funded by EPSRC long before the applications were realised.

Professor Geim said: "Technology is the engine of the economy, and science is the petrol to keep this engine running. The state of the global economy is in such a mess that its engine requires urgent repairs. Unfortunately, we not only run out of the petrol, by practically exhausting the previous scientific knowledge, but we also run out of money to buy new petrol.

"It is important that this Government realises the fundamental importance of science and, even in this economic climate, finds the extra money to get the economy a mile closer to the next petrol station.

"The University of Manchester has been at the forefront of graphene research since 2004, and we plan to be there for a long time to come."



## JODRELL BANK OFFERS NEW WORLDS OF DISCOVERY

It's been an eventful year for Jodrell Bank Observatory, with new developments unveiled; new recognition for both its heritage and its contemporary scientific impact; and new fans, from watchers of prime-time television, to royalty.

Starting the year off with a (big) bang was Stargazing Live, a unique show broadcast live for BBC2 at the start of January 2011 from Jodrell Bank Observatory.

Professor Brian Cox from the School of Physics and Astronomy presented the show, alongside popular comedian and physicist Dara O'Brain.

Pulling in 10 million viewers over three nights, the show featured the observatory's key areas of work and expertise, including the study of the remnants of exploded stars using an array of radio telescopes to understand the birth of planets, stars and galaxies.

Hot on the heels of the programme's success came the announcement that Jodrell Bank has been chosen as the prestigious base for the project office of the world's largest and most sensitive radio telescope – the Square Kilometre Array.

This innovative, multinational science project aims to answer some of the most fundamental questions about the universe, helping us to understand dark matter, general relativity in extreme conditions, and how the universe came to look the way it does.

There was good news for the general public, too, with the opening of a brand new visitor attraction in April: the Science Discovery Centre.

This £3 million attraction includes the Planet Pavilion, an entrance building hosting an



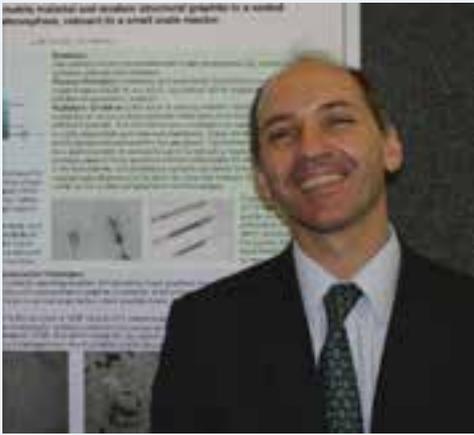
embossed map of the universe created by radio astronomers, as well as a five-metre working model of our solar system; and the Space Pavilion, where visitors can find out – live – what the world-famous Lovell Telescope is looking at, and gain answers to some of the most popular astronomy questions.

A year-round education programme at the Centre offers taught sessions with hands-on activities, planetarium shows and outdoor trails across the grounds and gardens. And there's a new glass-walled café, offering spectacular views of the Lovell Telescope.

Small wonder that Jodrell Bank Observatory was shortlisted this year as a UNESCO World Heritage Site – and received the royal seal of approval from Prince Andrew, Duke of York, who praised the achievements of Jodrell Bank astronomers and scientists on a visit to the Observatory in the autumn.

Dr Teresa Anderson, Director of the new Discovery Centre, said: "We're keen, above all, to inspire the scientists of the future, and think that the new facilities, alongside the Lovell Telescope, will spark off huge enthusiasm in all our visitors."





## NEW INDUSTRY HUB FOR NUCLEAR ENERGY TECHNOLOGY

The University stepped up to the forefront of nuclear industrial development this year with the opening of the Centre of Nuclear Energy Technology. C-NET officially launched at the University in January 2011, to an audience of industry professionals and nuclear academics.

Established to place the region at the cutting edge of reactor fuels and nuclear fuels technology, C-NET is the result of collaboration between the University and the former North West Development Agency.

Showcasing C-NET's capabilities in research, testing, simulation and skills development, key speakers on the day included Director of C-NET Professor Tim Abram and nuclear fuels expert Dame Sue Ion.

Speaking at the launch, Professor Abram said: "The purpose of C-NET is to address the needs of industry; it's not an academically driven centre. The idea is to produce great science and academically excellent engineering, but also to address the needs of industry.

"It's important that we are engaged strongly with industry and use our expertise to drive value for industry and bring them to the North West. Manchester is home to the UK's largest community of nuclear researchers, so it's appropriate that C-NET, focusing on fuels and reactors, should be based here."

## NEW COLLABORATIVE CENTRE FOR INFLAMMATION RESEARCH

The University of Manchester, GlaxoSmithKline (GSK) and AstraZeneca announced the creation of the Manchester Collaborative Centre for Inflammation Research (MCCIR) in May this year; a unique venture to establish a world-leading translational centre for inflammatory diseases.

The collaboration between two UK-based pharmaceutical companies, GSK and AstraZeneca, and the University brings together scientists from both the pharmaceutical industry and academia to work together on inflammation research and translational medicine. The project started out with an initial investment of £5 million from each partner over a three-year period.

MCCIR will aim to translate its findings into new and improved treatments; advances

that could potentially benefit the millions of people worldwide affected by diseases associated with chronic inflammation, including asthma, chronic obstructive pulmonary disease, rheumatoid arthritis and inflammatory bowel disease.

Professor Ian Jacobs, University Vice-President and Dean of the Faculty of Medical and Human Sciences, commented: "This collaboration builds on the mutual understanding developed between the University and both GSK and AstraZeneca over recent years, and will bring together expertise in biomedical research from the University with the resources and drug discovery expertise from GSK and AstraZeneca to create true partnership and synergy.

"It firmly establishes the UK and The University of Manchester at the forefront of innovative and enterprising research into inflammatory disease."

## UNIVERSITY CLIMBS FURTHER IN GLOBAL RANKING

The University's aim to become one of the world's top 25 universities came another step closer this year with a jump of six places in the Shanghai Jiao Tong rankings.

The 2011 Academic Ranking of World Universities (ARWU) placed The University of Manchester 38th in the world and sixth in Europe – up from 44th and ninth respectively in 2010.

The University is one of only five UK institutions in the top 50.

Since 2004, continued improvement in the Shanghai Jiao Tong Academic Ranking of World Universities has been one of the

University's main benchmarks for success, central to the pursuit of the Manchester 2015 Agenda. The University has made steady progress in the rankings, from 78th in 2004 (for the Victoria University of Manchester) to this latest high of 38th.

President and Vice-Chancellor, Professor Dame Nancy Rothwell, said: "Manchester is now tantalisingly close to realising the vision mapped out by my predecessor, Professor Alan Gilbert.

"Although we are already planning well beyond 2015, this is an important milestone in our continuing journey towards becoming one of the top 25 universities in the world, and it is a tribute to the outstanding staff here at Manchester."





## MANCHESTER TO HOST NEW £5 MILLION ARTHRITIS RESEARCH UNIT

Patients across the North West and beyond are set to benefit from a new national research unit that will investigate the treatment of arthritis and other diseases affecting the joints and muscles.

The Manchester NIHR Biomedical Research Unit (BRU) will be run in partnership by The University of Manchester and Central Manchester University Hospitals NHS Foundation Trust. The partners already have a highly regarded Musculoskeletal (MSK) Research Group, and have successfully applied to the National Institute for Health Research (NIHR) for almost £5 million to set up a nationally recognised BRU to extend the group's work.

Led by Professor Deborah Symmons (pictured above), the team of researchers and clinicians will pioneer new methods of assessing early response to treatment in adults and children with MSK disease, new ways of preventing rheumatoid arthritis and its complications, new therapies for arthritis and new resources for patients to help them achieve the best response to treatment.

"This is a hugely exciting development for Manchester," said Professor Symmons.

"The potential benefits for patients are significant: fewer cases of rheumatoid arthritis and its complications, and effective treatments given earlier in the course of disease with fewer side effects, leading to better disease outcomes for the most common forms of arthritis."

## NEW FUND CELEBRATES LIFE OF ALAN GILBERT

The Alan Gilbert Memorial Fund launched this year to celebrate the life and achievements of the University's inaugural President and Vice-Chancellor, Professor Alan Gilbert, who died in 2010 shortly after his retirement.

The Fund will support the Equity and Merit Scholarship Programme, which was inspired by Professor Gilbert and which enables outstanding students from developing countries such as Uganda, Rwanda and Bangladesh to study postgraduate courses at Manchester.

The Fund will create a permanent endowment to provide an annual 'Alan Gilbert Memorial Scholarship' for the most outstanding applicant from Africa.

Since 2007, 28 students have successfully completed courses in Manchester, one of whom is Ethel Nakakawa (pictured).

Ethel graduated from the University in 2009 with an MSc in Medical and Diagnostic Virology. Since then, she has been using her skills to save the lives of her fellow Ugandans. Ethel embodies Professor Gilbert's belief that with education comes responsibility, and she is determined to make the most of the opportunity she has been given.

She says: "There are a limited number of virologists in Uganda and an outbreak of viral diseases requires importing expertise – I can help reduce this as I will be able to train people as a teaching assistant in Uganda. I am truly grateful for the opportunity to study in Manchester."

Donations to the Alan Gilbert Memorial Fund will help support students like Ethel to study at Manchester and make a difference in their communities. University staff, students, alumni and friends are invited to make a donation towards a target of £500,000. For details, or to donate online, visit: [www.manchester.ac.uk/alangilbertmemorial](http://www.manchester.ac.uk/alangilbertmemorial)



## GRADUATE INTERNSHIP PROGRAMME BOOSTS LOCAL JOB OPPORTUNITIES

An increasing number of University graduates are securing local employment despite the recession, thanks to the Manchester Graduate Internship Programme (MGIP).

Run by the University's Careers and Employability Division, MGIP helps both graduates wishing to stay in Manchester and local businesses with skills shortages who want to help retain university talent in the city-region.

Since its launch in 2008, the programme has successfully placed more than 250 graduates in paid internships in and around Greater Manchester. Around 70% of the recruitment opportunities come from small to medium enterprises. The scheme is also open to large businesses and not-for-profit organisations, as well as the University itself.

MGIP helps Manchester graduates gain valuable work experience in an industry they're interested in, plus a wage reflecting average graduate intern salaries – currently around £14-15,000 pa – and perhaps the chance to secure a permanent contract once the internship ends.

Recruiters benefit from a quick, effective recruitment service provided by MGIP staff, including free support with creating a job description, advertising, shortlisting and interviewing for the right candidate.

Andrew Cochrane, a Modern Languages and Business Management graduate, secured an

internship in 2010 as a European sales administrator with Powerplay Textiles in Royton, Lancashire. His success quickly led to a permanent position.

Andrew said of his internship: "The role is varied, allows me to use my French language skills and also to work on strong consumer



brands. I regularly have the opportunity to travel to Europe on business.

"I would have no hesitation in recommending that final-year students and new graduates look at MGIP as an option to kick-start their career."

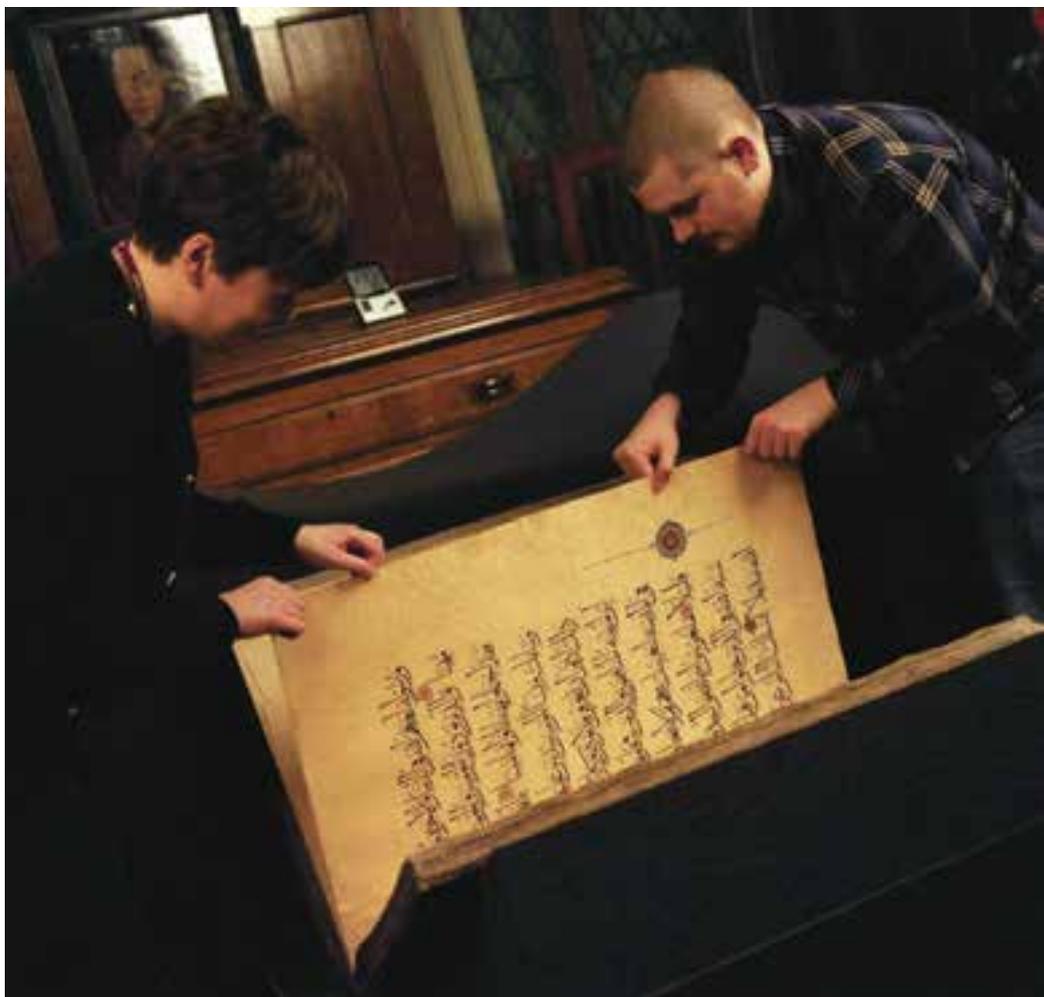
## 500-YEAR-OLD KORAN DIGITISED

A rarely-seen manuscript of one of the world's most important and largest Korans is being published online.

Experts at the John Rylands Library are using digital technology and the internet to reunite the 470-page Rylands Koran of Kansuh al-Ghuri with two missing leaves, discovered in the 1970s at the Chester Beatty Library in Dublin.

This Koran was written by several scribes, although historians disagree on the date it was written, with estimates ranging from the second half of the 14th century to 1500.

The project is funded by the Islamic Manuscript Association.





## NEW MANCHESTER DOCTORAL COLLEGE LAUNCHES

An overarching Manchester Doctoral College (MDC) launched in August 2011, as part of the University's support network for postgraduate research students. Working together with Faculty postgraduate research (PGR) teams, the MDC provides a joined-up and multidisciplinary focus on the University's research students, providing them with the opportunities and environment to excel, and also to prepare them for the next crucial steps in their careers.

The new MDC brings together the Graduate Education Group and the former management committee for the doctoral training centres. It oversees all graduate education activity and researcher development within the University, working closely with Associate Deans for Graduate Education within each Faculty to develop and deliver the strategic priorities for doctoral research and education.

The College opened a new MDC and Researcher Development teaching suite in the Roscoe Building this year: a dedicated space for taught doctoral units, including meetings rooms and a small office for mentoring, as well as dedicated teaching rooms.

Professor Matt Lamborn Ralph, Associate-Vice President for Research (pictured), is Director of the MDC, with overall responsibility for the graduate research and education portfolio at the University.

He said: "Graduate research and education represent a core part of the University's Strategic Vision 2020 and our Research Strategy. The Manchester Doctoral College provides leadership and oversight for the University's ambitious plans for postgraduate research students.

"Our principal aims are to improve the quality and quantity of postgraduate research students; to work in collaboration with PGR students to generate internationally-leading research, as well as a significant impact of our research for the UK and beyond; and to guide PGR students towards a successful future career, whether inside or outside of academia."

## NEW DIRECTORATE FOCUSES ON STUDENTS

The University underpinned its commitment to enhancing the student experience this year with the formation of a new Directorate for the Student Experience.

The Directorate brought together the MLP Careers and Employability Division, Teaching and Learning Support Office, Residential Services, SPORT, Student Recruitment and International Development, and Student Support and Services, in a major internal restructuring exercise.

By uniting these areas, the University aims to ensure a seamless process and experience for students, championing their needs and acting as a single point of responsibility – from initial enquiry to graduation – within the Professional Support Services.

Leading the new Directorate is Dr Tim Westlake, working closely with the two recently appointed Associate Vice-Presidents: Professor Clive Agnew, for Teaching, Learning, and Professor

Luke Georghiou, for Research and Innovation.

Immediate improvements identified by the Directorate included launching a one-stop intranet for students and more visible and proactive Welcome Week activities, which were enthusiastically supported by staff across the institution and met with very positive feedback.

Work is now underway to put in place a long-term organisational structure for the Directorate and develop an overarching Teaching, Learning and Student Experience Strategy, working in partnership with Schools, Faculties and the Students' Union.

Areas of particular focus include communication with students, provision of advice and guidance, a student charter, improving employability, and the development of a student wellbeing strategy.

## MANCHESTER WINS QUEEN'S AWARD FOR ENTERPRISE

In April 2011, the University won the Queen's Award for Enterprise, the most prestigious corporate award for British business.

The Award in the International Trade category was secured for the University's outstanding achievement in more than doubling annual overseas income between 2004 and 2010 to £93 million.

President and Vice-Chancellor, Professor Dame Nancy Rothwell said: "We are delighted to have won this highly prestigious honour, which recognises the fact that Manchester has a truly global reputation and that international students recognise the quality of education, the value of a Manchester degree and the support and guidance that we are able to offer.

"We are proud that Manchester is such a multicultural university, home to almost 11,000 non-British students from more than 160 countries."

The University has developed a new coherent strategy to support international student recruitment, backed up by effective marketing and strong liaison with overseas governments and academic institutions.

We have also put increasing emphasis on broadening our international research funding.

Her Majesty The Queen makes the awards on the advice of the Prime Minister, who is assisted by an advisory committee that includes representatives of government, industry and commerce, and the trade unions. The awards are conferred by the Queen on her birthday, April 21.

As well as receiving the Award, which lasts for a five-year period, representatives of the University were invited to attend Her Majesty's Reception at Buckingham Palace in July.



## IMPLANT JAB COULD SOLVE THE MISERY OF BACK PAIN

University scientists have developed a biomaterial implant that could finally bring treatment, in the form of an injection, for chronic back pain.

Chronic lower back pain is a major problem for society – behind only headaches as the most common neurological ailment. It is estimated that back pain affects 80% of people at some point in their lives.

Researchers have worked for many years to find a way of repairing the wear and tear on the lower back. Now they have discovered how to

permanently replace the workings of the intervertebral disc.

A cross-faculty team has been working with microgel particles for a number of years. Previously, they have demonstrated that an injectable fluid of these particles could transform into a gel that restored the mechanical properties of damaged model intervertebral discs.

Lead researcher Dr Brian Saunders, of the School of Materials, and his team have now succeeded in linking the microgel particles

together to form injectable durable, elastic gels capable of sustaining large permanent changes in shape without breaking. These improved gels should now display the necessary long-term durability required for an implanted device.

Dr Saunders said: “Our team has made a breakthrough through innovative materials design that brings the prospect of an injectable gel for treating degeneration of the intervertebral disc a step closer.”



*Dr Lynne and Ian Hampson*

## HIV DRUG COULD PREVENT CERVICAL CANCER

A widely used HIV drug could be used to prevent cervical cancer caused by infection with the human papilloma virus (HPV). University researchers, working with colleagues in Canada, have discovered how the antiviral drug lopinavir attacks HPV by switching on a natural viral defence system in infected cells.

The study by a team from the School of Cancer and Enabling Sciences led by Drs Lynne and Ian Hampson builds on the previous work in 2006 that first identified lopinavir as a potential therapeutic for HPV-related cervical cancer following laboratory tests on cell cultures.

“Since publishing our earlier work, we have now found that lopinavir selectively kills HPV-infected, non-cancerous cells, while leaving healthy cells relatively unaffected,” said Dr Ian Hampson.

“This is a very significant finding, as these cells are not cancer cells, but are the closest thing to being like the cells found in a pre-cancerous HPV infection of the cervix. In addition, we were able to show that lopinavir kills these HPV-infected cells by re-activating a well-known antiviral system that is suppressed by HPV.”

HPV-related cervical cancer accounts for approximately 290,000 deaths per year

worldwide. The same virus also causes a significant proportion of cancers of the mouth and throat in both men and women.

Current vaccination programmes against HPV are not effective in women already infected with HPV; furthermore, they do not protect against all types of HPV. They are also expensive, which limits their use in countries with limited resources.

A cheap, preferably self-administered treatment that could eliminate early-stage HPV infections before these have developed into cancers would therefore have distinct health advantages.

## RESEARCHERS VISUALISE HERPES VIRUS'S TACTICAL MANOEUVRE

Manchester researchers have, for the first time, developed a 3D picture of a herpes virus protein interacting with a key part of the human cellular machinery, enhancing our understanding of how it hijacks human cells to spread infection.

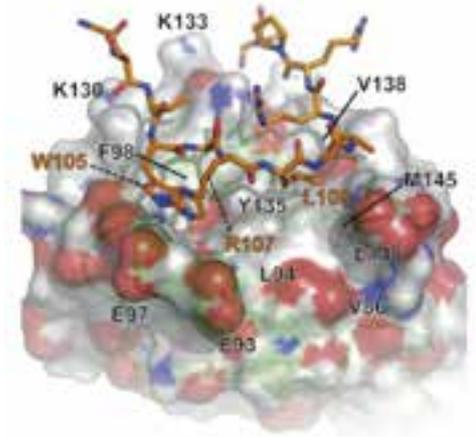
This discovery uncovers one of the many tactical manoeuvres employed by the virus and opens up new possibilities for stepping in to prevent or treat infection.

The University of Manchester team, funded by the Biotechnology and Biological Sciences Research Council (BBSRC), used NMR – a technique related to the one used in MRI body scanners and capable of visualising molecules at the smallest scales – to produce images of a herpes virus protein interacting with a cellular

protein. These images were then used to develop a 3D model of this herpes virus protein interacting with human protein.

The 3D model shows how the viral protein piggybacks on to the molecular machinery components inside human cells, promoting virus replication and spread of infection through the body.

Lead researcher Dr Alexander Golovanov, from the Manchester Interdisciplinary Biocentre and Faculty of Life Sciences, said: "To prevent or treat diseases caused by viruses, we need to know as much as possible about how they do this so that we can spot weak points or take out key tactical manoeuvres."



## ARCHAEOLOGISTS UNCOVER BRITAIN'S EARLIEST HOUSE

Archaeologists discovered Britain's earliest surviving house while working on Stone Age remains at a North Yorkshire site last August.

A team from the Universities of Manchester and York revealed that the home dates to at least 8,500 BC – when Britain was part of continental Europe.

The house predates what was previously Britain's oldest known dwelling at Howick, Northumberland, by at least 500 years. Its discovery has impacted on established views of this Mesolithic period.

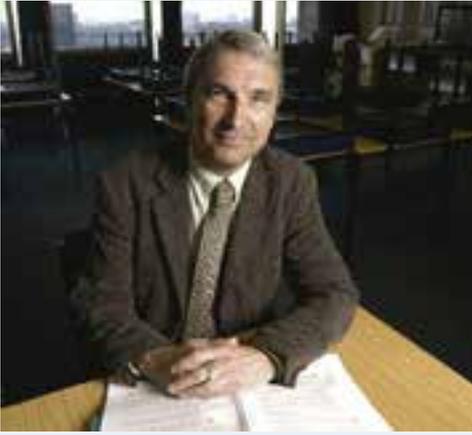
Dr Chantal Conneller, part of the research team, said: "This changes our ideas of the lives of the first settlers to move back into Britain after the end of the last Ice Age.

"We used to think they moved around a lot and left little evidence. Now we know they built large structures and were very attached to particular places in the landscape."

The research team unearthed the 3.5-metre circular structure next to an ancient lake at Star Carr, near Scarborough – a site comparable in archaeological importance to Stonehenge. They

were excavating a large wooden platform next to the lake, made of up timbers which have been split and hewn; the earliest evidence of carpentry in Europe.

The site was inhabited by hunter-gatherers from just after the last ice age, for a period of between 200 and 500 years. According to the team, they migrated from an area now under the North Sea.



## UNIVERSITY RESEARCH SUCCESSFULLY REVAMPS LOCAL EDUCATION SYSTEM

A radical reorganisation of Greater Manchester's education system has resulted in unprecedented improvements in test and exam results, especially among children and young people previously regarded as unreachable.

The scheme brought together schools and colleges, local authorities, community organisations, business and national government within a new approach to educational improvement.

It has given the opportunity for the scheme's Director, Professor Mel Ainscow from the School of Education, to put into practice the findings of ten years of his research into the improvement of urban schools.

The scheme brings together schools and colleges, local authorities, community organisations, businesses and national government within a new approach to educational improvement.

In the latest GCSE results, the Greater Manchester average score saw a 6% improvement on 2009, and a huge 11% since 2007, far exceeding the national picture. In addition, the number of schools securing results above 70% in Key Stage 4 – the official benchmark for 'outstanding' – more than doubled.

Professor Ainscow said: "Children in our poorest neighbourhoods have been failed for decades by successive policies – now we see a way of turning things around."



## A GREAT NEW SPACE FOR YOUNGSTERS TO ENJOY

Spine-tingling stories and bringing mysterious mythical beasts to life – just two of the surprises on offer to young people visiting a new learning space at the John Rylands Library.

One of the galleries at the Library has undergone a complete overhaul and is now a study space that can be used by schools and colleges. An education programme has also been developed, with a variety of workshops on offer.

The main aim is to introduce young people to the Library and help them feel comfortable there, with the ultimate hope that they will return again and again to take advantage of the facilities and special events on offer.

Groups will also have the opportunity to keep alive some of the original crafts linked to the Library, like printing and bookmaking.

Over 1,000 youngsters have used the new facilities so far, with bookings being taken all the time. All of the workshops and tours are free, making the experience available to all.

## WHITWORTH LOTTERY GRANT PROMISES TRANSFORMATION

An £8 million award by the Heritage Lottery Fund (HLF) will help fund a long-awaited extension at the Whitworth Art Gallery.

This development will transform the gallery, creating a new experience for visitors and opening up the Gallery to the neighbouring Whitworth Park.

The £12 million development will open up a substantial 396 square metres of new gallery space, doubling the artwork on display and creating an inspiring environment where visitors can enjoy the beautiful collections on display.

Gallery Director Maria Balshaw said: "We are delighted to have this investment, which will enable us to make our vision for the Whitworth a reality.

"We've been developing our plans for over three years and can't wait to start on the real thing. The project will create a gallery that's truly fit for the 21st century, and which we know our visitors are going to love."

The extension has been designed by leading architects MUMA.



## 'THE WORKS' OPENS DOORS FOR LOCAL JOB SEEKERS

A new University-led initiative aimed at helping local unemployed people gain new skills and find work launched in Moss Side this year.

Based on Alexandra Road, 'The Works' offers support, guidance and training to people living in Hulme and Moss Side, areas with some of the highest number of people of working age claiming out of work benefit in Manchester.

The Works is a partnership of several organisations, including City South Housing, Manchester Metropolitan University and Manchester Solutions. The Cooperative, the Central Manchester Foundation NHS Trust and businesses such as Royal Mail, the Post Office and ASDA are actively supporting the initiative.

The University's Staff Training and Development Unit offers training sessions in key skills development, such as preparing CVs, communication and interview skills. Specialist advisers from Next Step, Connexions and other partner organisations provide one-to-one support and there's an IT suite for job search and online applications.

Instantly popular, The Works welcomed 300 people in the first weeks of opening, with posts and training on offer in clerical, secretarial, estate maintenance, postal work, retail and catering.

Steve Grant, Assistant Director of Human Resources at the University, said: "The Works is offering a new way for local people to access employment opportunities and, equally importantly, the means to acquire the skills required to enable them to apply for jobs.

"It's already a very busy, vibrant centre and we have had to increase the resource available to cope with demand. This is the only employer-led facility of its kind in the North West and one of only a few across the country."



## NURSING GRADUATE WINS NATIONAL UNION OF STUDENTS HONOUR

Manchester student Tayaba Nicholson won the 2011 NUS Student of the Year award for her University campaign to raise awareness about mental health issues.

A final-year nursing student specialising in mental health, Tayaba received the prestigious prize after being nominated by the University of Manchester Students' Union (UMSU), which worked closely with her to set up the 'Mental Wealth Matters' society.

"It is a real honour and so exciting to have won this award," said Tayaba, who graduated this summer.

"Mental health – and the stigma that surrounds it – is something I feel incredibly passionate about, so this award is fantastic recognition for the Mental Wealth Matters campaign."

Working closely with UMSU's Welfare Officer, Hannah Patterson, Tayaba organised student workshops in mindfulness, massage, hula-hooping and laughter, as well as film and discussion nights to promote positive messages about wellbeing and the importance of good mental health.

She also arranged anti-stigma campaigns at UMSU's annual Pangaea festivals and collaborated with the national suicide prevention charity, Papyrus, all while completing her final degree year.

She added: "Mental health can affect the student population in many ways, ranging from stress to severe and enduring mental health problems. This award is really for the one in four people who have been affected by mental health issues in some way.

"I have thoroughly enjoyed this past year and I would like to say a huge thank you to everyone who has supported and helped the Mental Wealth Matters society, in particular, Hannah, without whose support, encouragement and dedication to this campaign, none of this would have been possible."

NUS National President, Liam Burns, said: "Tayaba is a true example of an outstanding student. Her contribution has touched the lives of so many students in Manchester this year and her legacy will continue for years to come. Mental health is a topic that affects the lives of many students and her tireless work has raised awareness and changed the lives of many students."

It is the second year running that a University of Manchester student has received this award. Last year, Joseph Akinragbe secured it for his outstanding work supporting fellow students, UMSU and a range of community and business projects.



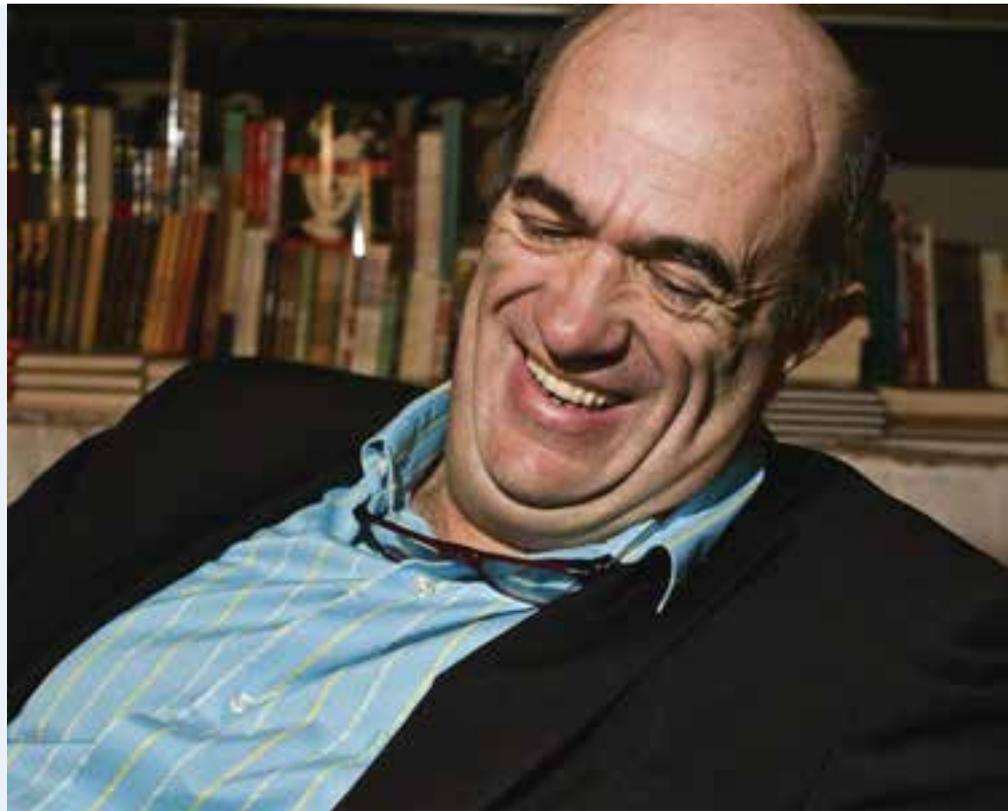
## UNIVERSITY WELCOMES COLM TOIBIN

World-renowned author Colm Toibin has been appointed as Professor of Creative Writing at the University. He takes over from Martin Amis, who finished his tenure in July.

Professor Toibin, who moved to Manchester from Princeton University, is continuing where Amis left off, hosting fiction workshops for masters students and a new course called Arts for Writers, where he brings composers, artists and other arts practitioners into the seminar room to explore how music, art and theatre influences writing.

The prolific writer from Enniscorthy, Ireland, is an internationally respected novelist, short story writer, playwright, editor and journalist.

Commenting on his appointment, Colm said: "I visited the Centre for New Writing for a reading two years ago, and I liked how the students combined writing new work with reading and talking about literature in seminars and workshops. I also like the public events, which bring the work out of the University and into contact with the wider world."



## INVOLVEMENT WITH LOCAL PROJECTS BOOSTS COMMUNITY PROSPECTS

The University's work with Corridor Manchester is resulting in real progress for the initiative's aim to ensure that the growth of organisations along Oxford Road benefits the local area.

One example this year involves University staff taking part in a mentoring scheme with schoolchildren at the Manchester Academy in Moss Side.

Some pupils at the Manchester Academy come from complicated or troubled backgrounds. A large number of refugees and asylum seekers are on the roll, some of whom have been deeply traumatised by the war-torn homelands they have left behind.

Nine staff members from the Human Resources Directorate worked with a group of Year 10 pupils to help them develop useful skills for the transition from school to work, or further education.

Mentor and Equality and Diversity Advisor Paul Marks-Jones said: "Many of the students taking part haven't had the opportunity to do anything like this before. At each session we help them to develop new skills, like CV writing and interview techniques, to help them when they come to find a job."

Another example is the University's link with Business Action on Homelessness, which encourages local businesses and organisations to take homeless people on placements and gain the skills and experience they need to get back into work.

It was through this scheme that Hamed Khamis (pictured below) was hired as a University building attendant last year – and this year he was invited to meet Prince Charles at a conference hosted by The Prince's Trust at



Clarence House. Hamed spoke at the event about his life experiences and how he came to work at the University.

Born in Somalia, Hamed's father was killed in the civil war. After living in Zanzibar, he came to the UK and ended up in Manchester, unemployed and living in a hostel. There, he found out about Business Action on Homelessness, and the rest is history.

Hamed, who has taught himself English, said: "I love this job; I like working here because it is a great place of learning.

"I would be financially better off not working and being on benefits, but I need to wake up in the morning and go to work. It is in my nature to work hard. The job is wonderful, the students and staff are very friendly."





## MANCHESTER RULES SCIENCE TOP TEN

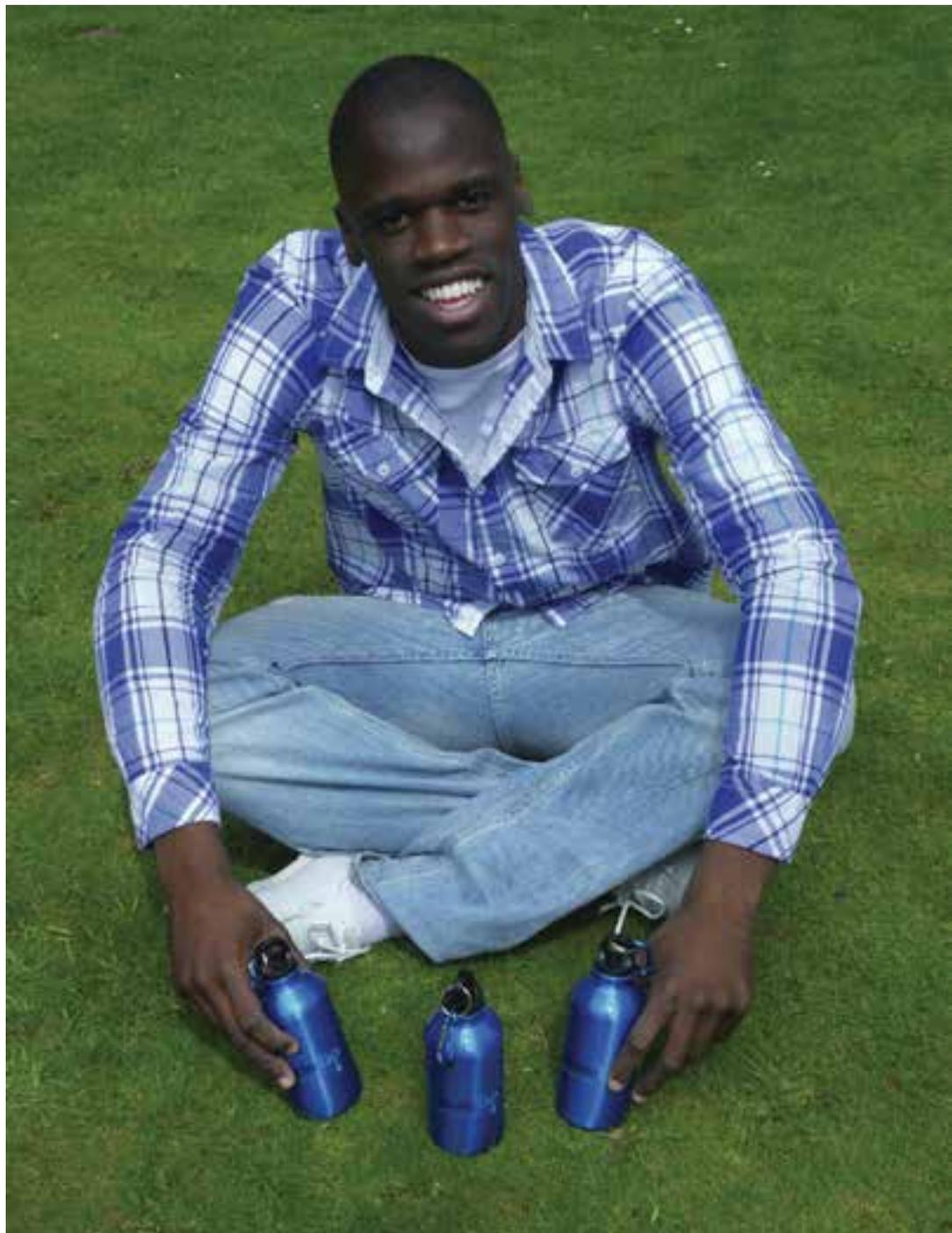
The University of Manchester dominates a new guide to the 100 most important people in British science, with three academics listed in the top ten.

Eureka, The Times' monthly science magazine, celebrated its first anniversary in 2010 with the inaugural Eureka 100 - a list of the most important contemporary figures in British science.

Professor Sir John Sulston, Nobel Laureate and architect of the Human Genome Project, was at number six; Professor Andre Geim, who won the Nobel Prize for physics in October, was at number nine and neuroscientist Professor Dame Nancy Rothwell, President and Vice-Chancellor of The University of Manchester, completed the top ten.

The University is also represented elsewhere in the list by Professor Brian Cox, particle physicist and broadcaster, who is listed at number 22.

The Top 100 was headed by Paul Nurse, President of the Royal Society.



## BRITAIN'S TOP BLACK GRADUATE

A University of Manchester PhD student and budding entrepreneur was named the most outstanding black student in Britain in 2010.

Edwin Broni-Mensah, a 25-year old who created his first computer game at the age of seven and now runs his own company, was selected from a shortlist of 200 people to top the list by Future Leaders magazine.

The shortlist featured graduates who have all balanced good academic grades with impressive achievements outside of their studies.

Edwin is a shining example: possessing a first class degree in Mathematics and Computer Science, he is now studying for an Applied Maths PhD, as well as running his innovative company GiveMeTap.

His company encourages local businesses to offer free refills of water to anyone carrying a

distinctive refillable GiveMeTap water bottle. The firm sends 70% of its profits to help support water projects in African regions where it's needed most.

Edwin has built up a network of more than 40 restaurants and eateries as outlets in Manchester and Salford. He plans to recruit more outlets in his home town of London, and hopes to offer GiveMeTap's services at the 2012 Olympics.

Edwin said: "I was overjoyed at being named number one on such a prestigious list; and my parents were excited too.

"What gives me the most pleasure is being in a position where I can meet and inspire young people to pursue their dreams, as literally anything is possible."

## AWARDS RECOGNISE OUTSTANDING VOLUNTEERS

A Nursing student responsible for giving a new home to Tanzanian children orphaned by HIV/AIDS won the University's Student Community Service and Volunteer of the Year Award for 2011.

Carly Townsend (pictured below), studying for a BNurs Nursing degree at the University, is the founder/coordinator of a project to build a self-sustainable home in a Tanzanian village for the young orphans. She helped with drawing up the plans for the building, fundraising and overseeing student volunteers' visits to the site. She also regularly visits the children in Tanzania.

The project aims to have the children in education within a couple of years, as well as ensuring the home can support itself with its own water well and by growing its own crops.

Other students recognised in the Awards included Raymond Ratti Beato (MA International Development), who founded an organisation

that takes student volunteers to developing countries, and Gillian Mawson (MPhil History), who organised events for Guernsey evacuees in their 80s and 90s who came to England during World War II, to tackle their social isolation.

The Awards also include categories for staff and alumni. Xue Theresa Teng, who works in the ICT Office, Faculty of Humanities' ICT Office, won the staff category for her work as Head of the Huaxia Chinese School, which teaches Chinese language and culture to 300 children and adults from Greater Manchester.

Professor Alex Molassiotis (School of Nursing, Midwifery and Social Work) was also recognised as the founder/ trustee of the Peer Education Programme for HIV/AIDS in Zambia, as was Senathirajah Ariyaratnam (School of Dentistry) for leading a Continuing Professional Development programme for dentists in an area of Sri Lanka isolated by civil war.

In the alumni category, Ann Johnson (BA Nursing graduate) secured top prize for her work as a patient educator improving understanding of how to best support sufferers of Alzheimer's, and aiming to influence Government policy. Ann was herself diagnosed with Alzheimer's in 2006.

Other alumni recognised were Amy Lythgoe (BArch Architecture graduate), who founded a charity that provides grants to bring to the UK the dependants of refugees who have been granted permanent residence; and Keith Mills (MEd Special Education graduate), founder/ president of a charity working with disadvantaged children in Uganda.

The Community Service and Volunteer of the Year Awards are organised each year by the University's Manchester Leadership Programme.

Winners receive a medal and donations to support the organisations where they volunteer.





## STUDENTS

We have the largest student community in the UK. Of the 39,732 students registered at the University, 28,514 are undergraduates and 11,218 are postgraduates.

	HOME/EU	OVERSEAS	BOTH
Undergraduate	24,504	4,010	28,514
Postgraduate taught	4,475	3,202	7,677
Postgraduate research	2,409	1,132	3,541
<b>TOTAL</b>	<b>31,388</b>	<b>8,344</b>	<b>39,732</b>

## STAFF

The University is one of the largest employers in Greater Manchester, with more than 5,500 academic and research staff.

BREAKDOWN OF STAFF	
Academic	3,714
Research	1,799
Administrative/management	1,155
Clerical/secretarial	1,516
Academic support	1,537
Manual/craft	991
<b>TOTAL</b>	<b>10,712</b>



## INCOME

The University has an annual income of £809 million.

INCOME	
Funding council grants	£203m
Tuition fees and educational contracts	£247m
Research grants and contracts	£196m
Other operating income	£147m
Endowments and investments	£15m
<b>TOTAL</b>	<b>£809m</b>
2010/11 figures rounded to the nearest £1 million	

## THE UNIVERSITY AT A GLANCE

### MISSION AND VISION

"To make The University of Manchester, already an internationally distinguished centre of research, innovation, learning and scholarly enquiry, one of the leading universities in the world by 2015."

### SENIOR OFFICERS

Chancellor	Mr Tom Bloxham
Pro-Chancellor and Chairman of the Board of Governors	Mr Anil Ruia
Pro-Chancellor	Admiral Sir John Kerr
President and Vice-Chancellor	Professor Dame Nancy Rothwell
Deputy President and Deputy Vice-Chancellor	Professor Rod Coombs

### ESTATE

347 buildings	711 acres
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### UNDERGRADUATE APPLICATIONS PER ANNUM

More than 58,000

### ALUMNI

240,000 in 200 countries

Information correct at time of print.

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