Welcome to the University of Glasgow’s Annual Review, which highlights our successes between August 2013 and July 2014.

This has undoubtedly been one of our most impressive years, during which we have:

• held an exhibition highlighting our vision for an ambitious 15-acre campus development, which will involve a major investment in buildings, facilities, staff and scholarships over the next 15 years
• received £10m from the UK/HEFCE UK Research Partnership Investment Fund to invest in stratified medicine and imaging equipment
• increased the number of staff holding research grants by 5%
• received major grants totalling more than £5m from the European Research Council for three separate projects in cardiovascular & medical sciences, engineering, and physics & astronomy
• led a consortium of Scottish universities for a new Doctoral Training Partnership supported by £14m of funding from the Arts & Humanities Research Council
• maintained our high student satisfaction levels in the National Student Survey
• achieved the highest outcome possible in the Enhancement-led Institutional Review for the quality of our learning and teaching activities.

These achievements and the many others highlighted in this review further enhance our global reputation as an iconic place of learning and research – a legacy we intend to pass from generation to generation in the years to come.

Professor Anton Muscatelli
Principal and Vice-Chancellor
Ecosystem innovators win royal seal of approval

The University’s Boyd Orr Centre for Population & Ecosystem Health won a prestigious Queen’s Anniversary Prize for Higher & Further Education in 2013. The award highlights the scientific excellence and global importance of the centre’s research, which tackles some of the world’s most serious infectious diseases in innovative ways.

The centre addresses the links between human activity, ecological changes and the overall health of ecosystems. Recent research has looked at four major diseases affecting animals and humans in both developed and less developed countries – rabies, foot-and-mouth disease, bovine tuberculosis and malaria.

The centre is named after Glasgow alumnus and Nobel Peace Prize winner John Boyd Orr in recognition of his achievements, his focus on impact and his distinctive blend of scientific integrity, ambition and pragmatism. The nutritionist and physiologist was a visionary researcher and a devoted supporter of the University.

Pictured: The Principal receiving the prize from Her Majesty the Queen at Buckingham Palace.

A Glasgow graduation – Singapore style

For the first time since its inception in 1451 the University held a graduation ceremony outside Scotland – in Singapore. The ceremony was for the first cohort of 80 students who had completed Honours programmes run by the University in collaboration with the Singapore Institute of Technology (SIT).

The students, who upgraded their polytechnic diploma qualifications with a further two years of university study in Singapore, graduated with BEng (Hons) in either Mechatronics or Mechanical Design Engineering in October 2013. They studied a similar curriculum to students on campus in Glasgow in the final two years of their BEng degree. In the vacation between the two years of the programme, the students visited Glasgow for four weeks, during which they undertook a design project and were introduced to Scottish culture.

We achieved our highest world ranking of 51st position

QS World University Rankings 2013
A century of isotopes

The 100th anniversary of the discovery of isotopes by Frederick Soddy at the University was celebrated in 2013.

Soddy, who lectured in physical chemistry and radioactivity for ten years at Glasgow, introduced the idea of isotopes in the journal Nature in December 1913 after he realised that a single chemical element could occur as atoms with different atomic weights, with different nuclear properties – such as radioactive half-life. He was awarded the Nobel Prize in Chemistry in 1921 for his significant work.

The milestone was marked with a range of talks, public activities and the exhibition Born in Glasgow: 100 Years of Isotope Science. This celebrated the crucial role the University has played in the field, which has transformed all areas of science, medicine and engineering – even the term ‘isotope’ was born in Glasgow when it was suggested to Soddy during a dinner at 11 University Gardens.

Building up our big data

The University was the lead partner in securing £14m of funding from the Economic & Social Research Council for the establishment of a major new research centre designed to investigate vast amounts of data.

With 90% of the data in the world created in the two years to 2013, the concept of big data is increasingly gaining interest in the worlds of research, government and business, and the Urban Big Data Research Centre aims to tackle problems of dynamic resource management, social justice, lifelong learning and urban engagement. The city of Glasgow will be used as an exemplar in analysing data from such sectors as transport, employment, migration and business.

Centre director Dr Piyushmita Thakuriah said: ‘This is a fantastic opportunity for researchers to analyse and mine data that has been created from a host of different public and private organisations. Complex issues like housing, transport, social exclusion and environment need to be looked at in a broader context to come up with robust planning and policy solutions and business innovations.’

Click and learn

In May 2014, the University launched its first Massive Open Online Course – known as a MOOC – Cancer in the 21st Century: the Genomic Revolution, in which over 2,700 people took part. MOOCs have emerged in recent years as a hugely popular method of learning, allowing anyone, anywhere, with an internet connection to participate in free university-led courses as a way of boosting knowledge, fulfilling an interest or taking steps towards university study. They are delivered through video lectures and other online tools, and provide interactive user forums to enable collaboration and support between users.

In July, as part of World War One centenary commemorations, Glasgow joined forces with three other universities in announcing the provision of four special MOOCs, each exploring an aspect of the war, in partnership with the BBC. Our course, World War One: Paris 1919 – A New World Order? focused on diplomacy and treaties, using material from the BBC’s rich historical archive.
TEDx connects

The University hosted its first TEDx University of Glasgow conference in March. At the event, speakers from the University and further afield shared ideas and experiences around the theme of connectivity, broken down into technology, multiculturalism and inter-subjectivity.

Better end-of-life care around the globe

Professor David Clark, Director of the School of Interdisciplinary Studies at the University’s Dumfries Campus, played a major role in January in a significant study of the comparative development of palliative care around the world, The Atlas of Palliative Care at the End of Life.

The atlas, which estimates that more than 20 million patients each year require palliative care at the end of life, has been used by the World Health Organization to shape international strategy on palliative care development. This is something that, while increasingly recognized as a crucial part of all healthcare systems worldwide, is acknowledged as lacking in the vast majority of countries. With a global ageing population, universal access to hospice and palliative care for chronic and terminal diseases will be required more and more in the coming decades.

Glasgow’s got talent

In February, the University announced that an additional £100,000 in Talent Scholarships would be made available, funded by philanthropic donations and available to students based on their academic excellence. The scholarships, which were established in 2007, provide assistance to committed and ambitious students with strong academic records whose financial circumstances may prevent them from taking up a university place.

By alleviating some of the financial pressures of attending university, the Talent Scholarships help to ensure that students from all backgrounds have access to a world-class higher education,” said Professor Frank Coton, Vice-Principal for Learning & Teaching.

Over 300 undergraduate students have benefited from the scholarships so far, and they have now been extended to a number of postgraduate students in recognition of their academic potential. Each postgraduate scholarship is worth £2,000.

Rising to the top

Regius Professor of Chemistry Lee Cronin was celebrated as one of the ten most inspirational scientists in the UK. The RISE award (Recognising Inspirational Scientists & Engineers) acknowledges outstanding academics whose contribution to science covers a wide range of disciplines, and is granted each year by the Engineering & Physical Sciences Research Council.

The University’s 50-strong group of researchers led by Professor Cronin focuses on understanding and controlling self-assembly and self-organisation in chemistry, and is investigating the revolutionary potential of complex chemical systems derived from non-biological building blocks.

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Pictured: Talent Scholarship recipient Zafirah Tariq Choudhry.

Pictured: Talent Scholarship recipient Zafirah Tariq Choudhry.
PhD student clocks up communicator award

Chemistry PhD student Jamie Gallagher became the winner of the first Universitas 21 Three Minute Thesis (3MT) Competition in October.

Welcoming entries from 17 universities in 9 countries, 3MT challenges doctoral students to explain to a wide audience in simple terms the content and aims of their research in under three minutes.

Jamie, whose presentation entitled Hot and Powerful highlighted the processes involved in converting waste heat into electricity, was awarded a $2,500 bursary to visit a Universitas 21 university in order to benefit his research or ongoing career development.

Jamie was also named as one of the Royal Society of Chemistry’s ‘175 Faces of Chemistry’, chosen for his science communications work. The project showcases some of the most important past, present and future contributors to the field.

He said: ‘At Glasgow we are encouraged to take our research out of the lab and classroom to share and learn from as many people as possible.’

Lift-off for space research

Scottish space research was given a major boost with the announcement of nearly £4m in support for projects on solar flares and the exploration of Mars. The University’s Space Glasgow group is spearheading two of twelve new UK-led projects that have received funding from the European Commission.

Dr Patrick Harkness and Professor Margaret Lucas from the School of Engineering will build a new type of drill tool to extract and contain samples from the surface of Mars. It is expected to be built by summer 2016 and will be tested on uninhabited Devon Island in Canada – one of the most Mars-like places on Earth.

Dr Lyndsay Fletcher and Dr Nicholas Labrosse from the School of Physics & Astronomy will investigate the physics of solar flares: energetic outbursts of solar radiation. Mid-sized flares can release energy equivalent to a hundred million megatons of TNT in just a few minutes.

Dr Fletcher said: ‘This project will allow us to combine ultra-high detail observation of solar flare events with advanced theoretical and computational modelling to shed light on the way a flare’s energy is stored, released, and converted into other forms. We’ll be probing a solar system event that has a direct impact on our planet’s environment.’

A strong bond with India

Our international connections were further enhanced when the Universities of Glasgow and Delhi signed a Memorandum of Understanding linking the two institutions.

Both universities are members of Universitas 21, the leading global network of world-class research-intensive universities.

Our Principal, Professor Anton Muscatelli, and Professor Dinesh Singh, Vice-Chancellor of the University of Delhi, formally cemented our links at a student summit hosted at the University.

Collaborations followed shortly afterwards, with English literature lectures being broadcast from Glasgow to students in Delhi, reciprocated when Glasgow students received lectures in postcolonial literature by video link from India.

Staff exchanges are also planned, to build alliances and expertise between Glasgow and Delhi.

Information architecture

In spring 2014 researchers at Glasgow launched a website cataloguing the largest study of Charles Rennie Mackintosh’s architectural works.

Led by Professor of Mackintosh Studies Pamela Robertson (pictured), the four-year project Mackintosh Architecture: Context, Making and Meaning has made use of the University’s unrivalled Mackintosh archive. The website includes more than 350 projects and 1,250 drawings, as well as essays, client biographies and data from the record books of the architectural practice.
Our inspiring people

Mandy MacLean
Professor of Pulmonary Pharmacology
Awarded the AstraZeneca Prize for Women in Pharmacology

James Murdock
Professor of Public Law
Presented with a Universities 21 Award for Internationalisation

Lauren Gray
English Literature graduate
Bronze medallist in curling at the 2014 Winter Olympic Games in Sochi

James Murdoch
Professor of Public Law
Presented with a Universitas 21 Award for Internationalisation

Sarah Cleaveland
Professor of Comparative Epidemiology
Appointed OBE for services to veterinary epidemiology in the Queen’s Birthday Honours

Denis Fischbacher-Smith
Research Professor in Risk & Resilience
Awarded a Principal Fellowship of the Higher Education Academy

Karina Atkinson
Genetics graduate
Named Young Alumnus of the Year 2013 for her conservation work in Paraguay

Pictured: The prestigious oak-panelled and painting-adorned Randolph Hall lies within the University’s historic main building.
Our changing campus

The University is on the threshold of an exciting new era of development and growth, embarking on a journey to reshape the campus.

Investing

At the bottom of University Avenue a multi-million pound development got underway in 2013 to build a sizeable extension to our sports building as well as new social facilities for one of our halls. The five-storey building will provide a four-court activity hall and an increase of studio space, as well as a café, bars and a new nightclub.

Innovating

Early in 2014 we completed our acquisition of the Western Infirmary site, paving the way for an ambitious 15-year plan to redevelop the University. The regeneration of this 15-acre site will provide us with an upgraded campus for the 21st century and enhance our position as an internationally outstanding research institution.

Improving

Our library was boosted by £12m of investment, allowing new digital resources to be made available, along with a new café and structural improvements. Further redevelopment will see the creation of a new exhibition space to present exciting research and showcase our treasures and assets.

Impacting

A £4.5m Heritage Lottery grant will help create a new collections study centre in the city’s iconic Kelvin Hall by 2016. More than two million museum and gallery objects in the University’s Hunterian Museum that are currently hidden away in storage will be available to students and researchers by 2016.
Getting the medicine just right

A multi-million pound innovation centre that is set to revolutionise healthcare opened in Glasgow in 2014.

The new Stratified Medicine Scotland Innovation Centre will enable scientists to examine the genetic makeup of patients and their differing responses to drugs designed to treat specific diseases, with the aim of creating more precise and effective forms of treatment for groups of patients most likely to benefit. Current methods of managing illness, with standardised, one-size-fits-all trial-and-error medications, are not always fit for purpose.

The new centre has state-of-the-art DNA- and RNA-sequencing capabilities, and will allow drug companies to conduct clinical trials using specific ‘stratified’ groups of patients where there is a high probability of a new drug working. This will improve the number of new drugs reaching the market in Scotland and beyond, meaning that in future doctors will be able to prescribe the best possible medicines for individual patients, rather than standard drugs which may not benefit the patient or may cause unwanted side-effects.

The venture is a public-private partnership bringing together two core industry partners (Thermo Fisher and Aridhia), four Scottish universities with medical schools (Glasgow, Edinburgh, Dundee and Aberdeen) and their corresponding four academic NHS health boards. The Scottish Funding Council is the initiator and major funder of the centre, for which the University acts as an administrative hub.

The centre, which will ultimately relocate to the new South Glasgow University Hospital, will focus on developing new forms of treatment for chronic diseases, including cancer, stroke, diabetes, rheumatoid arthritis, multiple sclerosis, and other respiratory and cardiovascular diseases.

www.glasgow.ac.uk/stratifiedmedicine
In 2013 we celebrated 50 years of student television, where many writers, producers and presenters gained skills and experience for a career in television.

As the oldest continually operating student-run TV station in the world, Glasgow University Student Television (GUST) began in 1964 as a small society dedicated to the appreciation of a relatively new phenomenon. Since then, GUST has been crowned Best Broadcaster by the National Student Television Association more than any other student TV station in the UK, and at its peak, took this title ten years in a row.

GUST programming has always been a mixture of the serious and the lighthearted. The archives include pre-fame footage of celebrities like Jude Law and Sean Pertwee, the production by GUST of Glasgow graduate Emeli Sandé’s first music video and the filming of the Edinburgh riots that kicked off during the G8 summit in 2005.

Icing the cake of the golden anniversary year, GUST’s 2013 Freshers’ Week programming was selected as the best in the UK by the careers resource Go Think Big. ‘We produced five programmes every single day,’ says 2013/14 controller Alicja Tokarska, whose personal highlight was interviewing The Maccabees, who DJed at the Queen Margaret Union.

There is a great success rate among ‘GUSTies’ in securing employment in television journalism or production and going on to huge achievements. Television writer and producer Steven Moffat, of Doctor Who and Sherlock fame, believes GUST certainly influenced his and others’ career direction. ‘It’s the people that you meet and the things that you do at university that can really help you,’ he says. ‘Being involved with GUST was one of them, and from my generation a load of GUST members got on television and became big names.’

These include stalwarts of broadcasting such as the CEO of ITN, John Harding; Hamish Barbour, head of IWC Media; and renowned producer-director Julia Knowles. Some people are in GUST to be creative or just for the fun of it. But if you are on a bit of a mission to get somewhere, it is very good at helping you to make those industry connections. No matter how successful you get or where you go in television, you know that it all began in a little office at the top of the John McIntyre Building.

Former controller and honorary GUST member Bobby Rae (pictured above).

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Programmed for success

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Former controller and honorary GUST member Bobby Rae (pictured above).
Champions of the Earth’s ecosystems

In 2013 the University’s Boyd Orr Centre for Population & Ecosystem Health was awarded the Queen’s Anniversary Prize for Higher and Further Education — the highest form of national recognition open to a UK academic or vocational institution.

The centre’s research addresses the links between human activity, ecological changes and the overall health of ecosystems that include humans, domestic animals and wildlife.

Much of the centre’s work has been carried out in Tanzania, where one particular project has been the strategic control of endemic foot-and-mouth disease. The project operates across livestock farms, working with communities including the Masai tribes, where an outbreak of foot-and-mouth disease can have a devastating effect on a herd’s viability and economic return.

The centre is supporting Tanzanian government officials to design systems that will allow them to control the disease more efficiently. Future plans include setting up vaccination trials, and the Glasgow group has also been training field teams to carry out sampling and field diagnostics.

Many of the centre’s scientists spend much of their time literally out in the field. However, mathematician Dr Louise Matthews works in the cleaner environment of the lab. Her expertise lies in the creation of simulation models of disease outbreaks. She is currently involved in a project to tackle E. coli 0157. Other members of her team – at the dirty end – take samples of cow-pats to see how many E. coli bacteria are being shed by the cattle. While most of the time cattle shed only low levels of bacteria, there is occasional super-shedding, thought to be the major risk for transmission to humans.

The team hopes to find an effective vaccine to reduce E. coli in the cattle population and consequently in humans too. One recent study has indicated that vaccines producing a 50% reduction in shedding frequency in cattle could reduce human cases of E. coli by nearly 85%.

Without doubt, the work of the award-winning centre is hugely relevant to many of the major human and animal health challenges facing the world today.

www.glasgow.ac.uk/boydorr
Tackling men’s health with a football focus

A £5 million project to improve the health of male football fans across Europe kicked off in 2013. It aims to engage supporters in health-promoting lifestyle changes through their loyalty and attachment to their clubs.

The EU-funded health project – EuroFIT – will encourage men through their connection with their clubs to make sustainable improvements in their diet, activity, and physical fitness.

Led by Glasgow, the project is working with top football clubs including Arsenal, Benfica and FC Porto, to encourage groups of fans to take part in a tailored fitness and lifestyle programme.

EuroFIT is building on the successful Football Fans in Training programme pioneered by Glasgow Professors Sally Wyke and Kate Hunt, which has run in Scotland since 2011. “We know that men, particularly, are much less likely than women to use existing opportunities for lifestyle change. Football is a real draw for many men, and increasingly also for female supporters. The commitment many feel to their clubs and the opportunity to train with other fans to be healthier is a real bonus for them.”

Football fans will take part in an interactive programme led by coaches in the participating football clubs, and held in club grounds. Technological developments will be used to provide continuous feedback for monitoring progress which will help keep men motivated and active.

www.glasgow.ac.uk/eurofit
Facts and figures

Our income
The University enjoyed an impressive year financially in 2013–14. Our income was £511m, an increase of £43m over 2012–13. We had a healthy net funds balance, and an operating surplus for the ninth consecutive year, which increased by 89% over 2012–13.

- Funding body grants: £161m
- Tuition fees and education contracts: £132m
- Research grants and contracts: £134m
- Other income: £73m
- Endowment and investment income: £11m

£511m income

Our students
Our student numbers increased in 2013–14 to almost 25,000 students from over 120 countries.

- Undergraduates: 17,341
- Postgraduates: 6,833
- Total: 24,174

% of student numbers

- 72% Undergraduates
- 28% Postgraduates

% of students by college

- 35% Arts
- 24% Science & Engineering
- 18% Medical, Veterinary & Life Sciences
- 14% Social Sciences
- 9% Other

% of home residence of full-time students

- 31.5% Scotland
- 25.8% Rest of the UK
- 26.2% EU
- 14.3% International, non-EU

We increased our research & teaching staff by more than 200

Our staff

- Research & teaching staff: 2,942
- Administration, professional & administrative staff: 2,126
- Operational staff: 988
- Technical & related staff: 566
- Clinical staff: 293
- Total staff: 6,945

A Register of Interests of Members of the University Court and Senior Management is maintained by the University. Application for copies may be made in writing to the Secretary of Court or the Register may be inspected on personal application to the Court Office.
Honorary degrees

Doctor of Laws (LLD)
Dr Silvia Casale
Past President of the CPT (European Committee for the Prevention of Torture)
The Rt Hon Sir Geoffrey Palmer
New Zealand lawyer

Doctor of Science (DSc)
Professor Simon Peyton Jones
Principal Researcher, Microsoft Research Ltd
Professor Michael Boit
Professor of Sport Science, Kenyatta University
Professor Robert Boyd
Department of Physics, University of Ottawa
Dr Derek Doyle
Modern Palliative Medicine
Professor Anne Glover
Chief Scientific Adviser to EU President
Professor Giuseppe Mancos
Head of the Department of Medicine, University of Milan
Professor Iain Stewart
Professor of Geosciences Communication, University of Plymouth

Doctor of Letters (DLitt)
Mr Colin Blane
BBC News Correspondent
Professor Janice Knipatic
Founder of Graven Images, Glasgow
Mr Gerald Hughes
First deaf sailor in Scotland since 1880 and first deaf person to sail single-handedly around the globe via the five southern peaks

Doctor of the University (DUniv)
HRH Prince Tunku Imran
President, Commonwealth Games Federation
Dr Bridget McConnell
Chief Executive, Glasgow Life
His Excellency Kamalesh Sharma
Secretary-General, Commonwealth of Nations
Mrs C Rosemary Chrimes
Discus gold medalist, Edinburgh 1970
Mr Alexander Leckie
Fencing gold medalist, Edinburgh 1970
Mr Joseph Laughlin Stewart
10,000m gold medalist, Edinburgh 1970
Mrs Rosemary Olivia Stirling
800m gold medalist, Edinburgh 1970
Mr George Adrain
Lawn bowls pairs gold medalist, Edinburgh 1986
Mr William Allan Gilliland
Badminton doubles gold medalist, Edinburgh 1986
Mr Grant Knox
Lawn bowls pairs gold medalist, Edinburgh 1986
Mr Daniel Travers
Badminton doubles gold medalist, Edinburgh 1986
Mr Andy Bow
Senior partner, Foster and Partners
Professor Sir Richard Trainor
Principal, King’s College, London

Doctor of Engineering (DEng)
Captain David Mackay
Test Pilot for Virgin Galactic

Captain David Mackay