









Annual Review 2012



Preface from the Vice-Chancellor

Looking forward instead of back is not traditionally the remit of an Annual Review, but having taken up my post as Vice-Chancellor in the summer of 2012 – half way through the year in question - I feel it will be helpful whilst reflecting on achievements also to break with convention and outline plans for the University in the years ahead.

I feel very privileged to lead Cardiff
University and build on the outstanding
success of my predecessor, Dr David Grant,
and all his colleagues. The University's
achievements during his tenure have put
the foundations in place to ensure that
Cardiff remains a top research-intensive
University.

Since joining Cardiff, my ambition has been clear: for this University consistently to rank among the top 100 in the world and the top 20 in Britain. To help us achieve this aim, I am focusing the University's energy on four key areas: research, education, internationalisation and engagement with Cardiff and Wales.

Tackling issues of global importance and engaging in innovative cross-disciplinary work will be the characteristics of Cardiff's research reputation. We're already ahead here, with our three flagship Research Institutes paving the way for novel solutions to sustainability, cancer, neuroscience and mental health. These are key aspects of our research repertoire and we will continue to develop them over the coming years. We must also be bold and look beyond our own campus, building our research capacity by partnering with

other like-minded universities. Not only will this help us compete for funding in an increasingly tough sector, but it will bolster our reputation and help us succeed in addressing some of society's biggest challenges.

A Cardiff education will continue to be research-led, challenging, and highly sought after. Our graduates will be equipped with skills to help them make the transition from education to employment with ease and they will be in demand from leading employers. One of my first tasks as Vice-Chancellor was to open the new Centre for Skills, Enterprise & Volunteering. It's helping our students boost their CVs and future job prospects. We must continue to respond to the needs of our students and ensure that we are providing them with an outstanding and well-rounded educational experience. Above all, a Cardiff education will not be exclusive. It will be open to the best and brightest students capable of thriving during their time with us regardless of background. At the end of 2012, we announced that Cardiff had joined UK leading universities as part of Futurelearn, a new, free, open online learning platform run by the Open University. Now we can take some of the best education in Wales to the world, and

bring the world of higher education to learners in Wales.

Internationally, I want Cardiff to establish its position as a global university, recruiting talented students from overseas to Wales and collaborating with outstanding institutions around the world. The establishment of a thriving overseas campus is an investment we must seriously consider. It will not only give Cardiff leverage in the international student market but will help foster student mobility and promote greater global partnerships, with enviable returns in terms of our reputation. Encouraging a more strategic approach to outward mobility will result in more of our students and staff experiencing the transformative effect of studying or working abroad.

In Wales, our knowledge exchange partnerships must make the most of our world-leading expertise, helping businesses grow and community projects to succeed. We want to help drive sustained growth and prosperity across the nation. Our social and environmental responsibilities need to be realised: we must build on our work to control our carbon emissions and fulfil our commitment to sustainability. Raising aspirations and engaging the local community in Cardiff's work and world will be two areas we will concentrate on in the time ahead.

Woven throughout these four key areas will be our guiding principles, amongst them dynamism, integrity, respect for people and diversity, and self determination. Cardiff is committed to providing a rich environment for our staff and students to flourish, and to contributing to the development of our communities, be they local or global.

The higher education market is moving at pace, and we must keep up. Along with the priority areas I've outlined above, we at Cardiff must invest in our staff, students.

facilities and infrastructure. Concentrating on these priority areas will not only help put us ahead of our competitors, but will create an environment that gives each individual the support and resources they need to achieve their goals.

As I mentioned at the start, 2012 was a year of two leadership halves for Cardiff. During the last months of his tenure, my predecessor Dr David Grant led a high-level delegation to China to launch a new joint institute for oncology research involving Cardiff and Peking University, one of the most highly-respected institutions in China. A new International Centre for Biomedical Research was also opened, this time involving Cardiff and China's Capital Medical University. These collaborations are delivering internationally excellent outcomes with benefits for patients around the world.

The year also saw Cardiff's staff excel on the world stage. Two of our senior academics were elected Fellows of the Royal Society: Professor Hywel Thomas for his innovative work on geo-environmental research, and Professor John Aggleton for expanding our understanding of how memory is stored in the brain. In addition we are very proud that Professor Harry Collins was made a Fellow of the British Academy for his role in establishing the sociological study of science.

This Annual Review offers just a few glimpses of the successes of 2012. Progress has been made in many areas across the campus, and I would like to thank the University community for the enormous contribution it continues to make and for a very warm welcome to Cardiff. I look forward to reporting next time on our progress towards our goal, as well as continued success by our staff and students.

Professor Colin Riordan
President and Vice-Chancellor



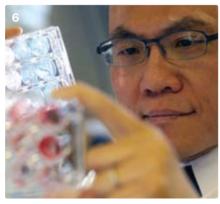
Our year in pictures







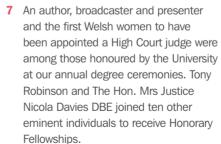




- **1** A new catalytic process discovered by the Cardiff Catalysis Institute could unleash a range of useful new byproducts from diesel fuel production.
- 2 An international team, including Dr Chris Berry of the School of Earth and Ocean Sciences unearthed and investigated the Gilboa fossil forest in upstate New York, an entire fossil forest dating back 385 million years.
- 3 Four of the University's forward-thinking and inspiring speakers took part in TEDxCARDIFF. Supported by the University, the event gave audiences, at the event and online, a chance to learn about and share ideas on science, art, creativity and adventure.
- 4 Professors Paul Furlong and Richard Wyn Jones (pictured above) of the School of European Language, Translation & Politics and Professor Philip Thomas, Cardiff Law School, received the award of Academician of the Academy of Social Sciences for their outstanding contribution to the social sciences.
- 5 Cardiff University's Vertical Studio module gave students from the Welsh School of Architecture the chance to project images and animations onto iconic University buildings.
- 6 The Arthritis Research UK Experimental Arthritis Treatment Centre, Wales' first research centre dedicated to developing new drugs and treatments to ease the pain and suffering of arthritis sufferers was opened at the School of Medicine.





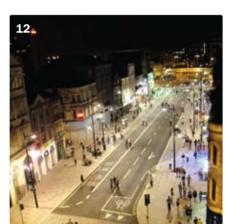












- presenter to have researchers from the School of Biosciences at the Danau Girang Field Centre in Sabah, Malaysia found that animals rely on forest corridors for moving between forest patches.
 - More students than ever before gained a place at a higher education institution thanks to the University's successful widening access scheme, Step Up to University.
- 11 Broadcaster, writer, comedian and environmental advocate Griff Rhys Jones led a celebration of the work of Cardiff's flagship Sustainable Places Research Institute during the University's 2012 Sustainability Week. Griff became Patron of the Institute in 2011.
- 12 A violence prevention model established by Professor Jonathan Shepherd, School of Dentistry was adopted by the Dutch government in an effort to reduce violent behaviour.

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Award-winning work

Professors Mike Owen and Mick O'Donovan from the University's MRC Centre for Neuropsychiatric Genetics and Genomics and the Neuroscience and Mental Health Research Institute collected The Lieber Prize in New York in recognition of their 'outstanding' work into the causes, prevention, and treatment of schizophrenia. Their research has helped identify the first robustly supported susceptibility genes for schizophrenia and identified likely disease mechanisms.



considerably reduced direct supervision by an expert.

Cardiff spin-out company MedaPhor successfully raised £1.06M in an equity funding

round to accelerate US sales and new product development of ScanTrainer, a virtual

driven, training programme that replicates a real ultrasound scanning experience.

coordination, but without the need for an ultrasound machine or a patient and with

Trainees develop the complex mix of cognitive skills and eye-hand movement

'real feel' ultrasound-training simulator that provides students with a 24/7, educationally

Ultrasound scanning experience

A major Cancer Research Un-funded trial led by Professor Alan Burnett, School of Medicine and the European Cancer Stem Cell Research Institute found that Acute Myeloid Leukaemia patients given a new type of 'smart drug' in addition to chemotherapy treatment are 22 per cent less likely to relapse and around 13 per cent less likely to die from their disease.

Improved leukaemia treatment

Protecting historic buildings

Scientists at the School of Chemistry have developed a new treatment that could help protect the UK's historic limestone buildings from erosion.

Working on York Minister's iconic magnesian limestone cathedral they utilised 'hydrophobic surface coatings' which protects limestone from erosion by acid rain and atmospheric pollutants, while allowing the stone to 'breathe'.

Royal Society success

Professor Hywel Thomas, School of Engineering and Pro Vice-Chancellor, International & Engagement, and Professor John Aggleton, School of Psychology, were both elected Fellows of the Royal Society. Professor Aggleton is a neuroscientist who has widely expanded understanding of how memory is stored in the brain. Professor Thomas has dramatically advanced understanding of transport processes in the ground.



Exploring Ham Hill

Excavations at Ham Hill in Somerset,
Britain's largest prehistoric hillfort gave
Cardiff and Cambridge archaeologists a
glimpse of what life was like inside the fort
more than 2000 years ago. Among their
findings was an Iron Age house with a stone
wall built from slabs of the local Ham stone –
possibly the first Ham Stone house in Britain.



Creative Citizens

Cardiff is one of three universities awarded funding for research that will transform the way that our communities interact with the cultural and creative economies of the UK. The 'Understanding the Value of Creative Citizens' project, led by Professor Ian Hargreaves of the School of Journalism, Media and Cultural Studies and Cardiff Business School will focus on the bedrock of the creative economy –



Students

The difference is Cardiff



Online access for all

Cardiff is one of ten leading UK universities to join Futurelearn, a platform run by the Open University that will give students in Wales, across the UK and around the world free online access to courses. The initiative enables Cardiff to extend access to its high quality education experience around the world and to help open higher education to all who can benefit.

Best performing course

Cardiff's Newspaper Journalism postgraduate training was named as the Best Performing Higher Education Postgraduate course in 2011-2012 by the National Council for the Training of Journalists with Cardiff students achieving higher marks than their peers around the country.

Professor Richard Sambrook (right) receives the award



Supporting students

Cardiff is one of only seven universities to have achieved top marks in a Stonewall checklist for assessing how supportive universities are for lesbian, gay and bisexual prospective students. The Stonewall *Gay by Degree* guide helps perspective students choose a university that will welcome and support LGB students, allowing them to be themselves and contributing to their student experience.

Inspiring a generation at London 2012

One of the University's High Performance athletes helped inspire a generation by winning a medal at the 2012 Paralympic Games in London. Jenny McLoughlin, a student in the School of English, Communication and Philosophy, raced in the 4x100m T37 relay, running the last leg for Team GB and bringing them home in third place to take a Bronze medal.

Broadening horizons

The Centre for Skills, Enterprise & Volunteering, a new employability hub in the Students' Union, is giving Cardiff students the opportunity to bolster their CVs and future job prospects. Located in the Centre are three of the



University's successful student services - The Skills Development Service, Student Volunteering Cardiff and Student Enterprise Cardiff – all of which help provide students with additional training, qualifications and experience.

Sporting success

Cardiff students triumphed in the Welsh Varsity competition, securing the Varsity Shield and winning back the Varsity Cup for the University. In an impressive sporting display, Cardiff students beat their Swansea counterparts across more than 20 different sports including basketball, squash and football, to scoop the Varsity Shield and won 33-13 at the Millennium Stadium to take the Varsity rugby Cup.



Engagement Enriching Wales

Cardiff drives economic development in Wales, with our partnerships and knowledge transfer activities boosting prosperity and growth. Our community engagement activities are bringing the University into the every day lives of people across the country, helping raise attainment in schoolchildren and giving adult learners the opportunity to experience research-led teaching. When people can't come to us, we take our work to them, from our exhibits at the National Eisteddfod, our hands-on guerrilla archaeology at the Green Man Festival or our dental care unit in the Cynon Valley.

Discovering Celtic Cardiff

Schoolchildren and local residents of the Ely and Caerau community were involved in excavating and exploring an Iron Age hillfort in the area to help them connect with the past. Led by the School of History, Archaeology and Religion, the CAER Heritage Project helped create a heightened sense of place for the people of these areas, developed educational opportunities and challenged some unfounded stereotypes often ascribed to this part of Cardiff.

Homework club praise

The Children's Commissioner for Wales has praised the work of University students in supporting a local community homework club. Established by Adamsdown Communities First and the Adamsdown African Association, the club sees University students support and encourage children with their homework, exam preparation and other learning activities. It aims to raise attainment and achievement with students



in inner city schools and colleges, in particular children from families who have little or no history of going to university. The club is now being used as an example that other higher education institutions should adopt, to relieve child poverty.

Dental services for all

A new Primary Care Dental Unit in the Cynon Valley was officially opened to provide a wide range of free dental care from final year School of Dentistry students to residents without a dentist. An estimated 10,000 people in the Cynon Valley do not have access to a dentist. The state-of-the-art unit at Ysbyty Cwm Cynon will help patients reach a good standard of dental health and then allow them to register fully with a dentist.



BookTalk

BookTalk is the University's exciting book group that brings together people who love to read and discuss books. BookTalkers, as they're known, meet every two months and read the very best classic and contemporary literature, discussing the big ideas behind great books. As part of the meetings Cardiff

academics who are specialists in their field share their own thoughts and research related to the themes of the chosen book, introducing BookTalkers to a new way of looking at novels and an opportunity to experience the book far more widely than they could as an individual.

Engineering a better society

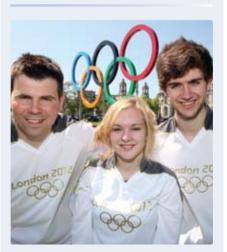
Exhibits showcasing the University's world-leading engineering research were on show at the prestigious Royal Academy of Engineering Summer Soirée. The event, hosted by Cardiff highlighted the crucial role of engineers in developing solutions to a diverse range of environmental, social, health and economic challenges.



Pathway to learning

A unique scheme offering adult learners the chance to access higher education has helped seven local adult learners transform their lives and progress onto a degree scheme. The award-winning Exploring the Past Pathway scheme is run collaboratively by the Centre for Lifelong Learning and the School of History, Archaeology and Religion. It is designed to give adult learners the opportunity to experience research-led teaching first hand and progress towards studying a degree in archaeology, history or religion.

Olympic torch bearers



Three of the University's most inspirational staff and students carried the Olympic Flame as it made its way though Cardiff in 2012. Ruby Miller, Guylee Simmonds and Stuart Vanstone made up part of the 8,000 Torchbearers who carried the Flame across the UK. Ruby was selected to carry the Flame for her commitment to her studies and sport, Guylee for his dedication to charity work, and Stuart for his contribution to putting Cardiff at the forefront of Olympic and Paralympic activity in Wales.

International A global university

At Cardiff, an international focus runs throughout all of our activities. It's underpinned by our aim to create global impact through academic excellence and to share best practice with our international partners. Our research and people are at the forefront of some of the world's most pressing problems, from tackling breast cancer in China to conservation in Malaysia. We're also making sure borders aren't barriers to studying with us, developing links with other countries and making a Cardiff education accessible to all – wherever they may be in the world.

Advancing education in a Tuk Tuk

Cardiff is supporting a round-the world Tuk Tuk expedition to help promote and advance education. Led by Cardiff graduate Nick Gough and Rich Sears, the pair are raising awareness of the challenge of improving global access to education during their trip. They also aim to fundraise for grassroots, community-based educational projects and set the world record for the longest journey in an auto-rickshaw.



Science without Borders

Cardiff is one of the approved Universities accepted for the Science without Borders scholarship programme funded by the Brazilian Government. The programme will allow Cardiff to forge closer links with leading Brazilian universities and welcome more talented students to the University – seven undergraduates have been welcomed to the University under the scheme to date.



Welcoming America's brightest minds

Eight talented US students were welcomed to Wales to study the nation's culture, politics, geography, economy and history. Hosted by Cardiff, Bangor and Aberystwyth



Universities, the American undergraduates met people the length and breadth of the country during their trip. The sixweek Fulbright Summer Institute involved the internationally-recognised research and teaching specialisms of all three universities. Cardiff's links with the US were further strengthened when it hosted the first visit by the National Association of Fellowship Advisors to Wales, which aimed to encourage some of the most prestigious American students to see Cardiff and Wales as a destination of choice to boost their studies and educational experience.

Sharing knowledge with China

Leaders of China's top universities arrived in Cardiff when the University played host to Wales' first UK-China Forum. Organised by the National Academy of Educational Administration, in association with the British Council Beijing, the UK-China Forum consisted of a 28 strong delegation of Chinese University Presidents, Vice-Presidents and Party Secretaries - alongside speakers from across the UK - to share management knowledge.

Raffles comes to Cardiff

The School of Music welcomed a group of talented Singaporean music students and their teachers from Raffles Institution and Raffles Girls School during their British tour. The group was invited by Professor Kenneth Hamilton, who has a long-standing involvement with the Raffles Academy Programme for elite students in Singapore. The students participated in a piano and strings masterclass focusing on music by Beethoven and Granados with acclaimed



performers Professor Hamilton and Professor Robin Stowell.

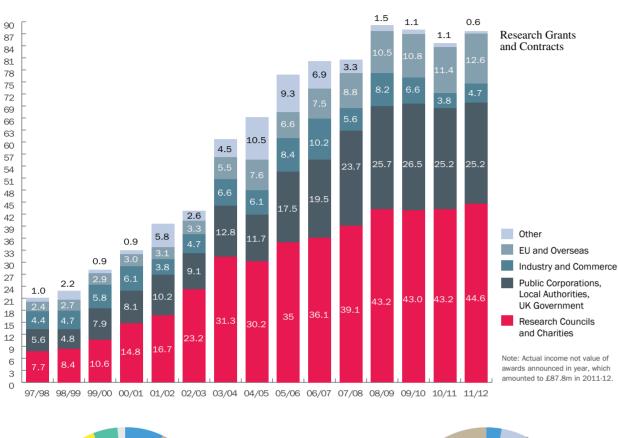
Attracting the World's best

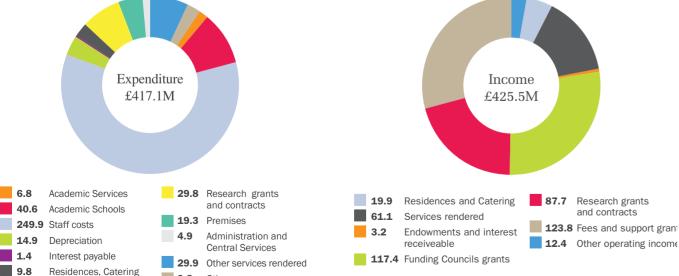
Cardiff's bid to attract some of the best international students was boosted with the launch of a major new scholarship. The International Scholarship Fund offers a wide range of scholarships at all levels to the world's brightest and most promising students. Scholarships are awarded based on a students' academic and extracurricular performance and the strength of their personal statement.



An international team of researchers including Dr lain McDonald from the School of Earth and Ocean Sciences discovered the remains of a giant three billion-year-old impact near the Maniitsoq region of West Greenland. The discovery means that scientists can study the effects of cratering on the Earth nearly a billion years further back in time than was possible before.

Financial performance





9.8 Other expenses

Grants, Gifts and Donations

Cardiff University gratefully acknowledges the following grants, gifts and donations received during the year under review. These were received and recorded centrally by the University from the organisations and individuals listed. The University also wishes to acknowledge the many additional gifts, donations and bequests it receives anonymously and for those donated generously directly to its academic schools.

Organisations

Abertawe Bro Morgannwg University NHS Trust

Action Medical Research Adantimmune Ltd

Afonydd Cymru

Airbus Operations Ltd Alcohol Research UK

Alcon Laboratories (LIK) Limited

Algipharma Biopolymer Therapies

Alzheimer's Society

Ambit Biosciences Corporation

Amgen Inc

Aneurin Bevan Health Board

Anonymous Funders Arthritis Research UK

Arts & Humanities Research Council

Astellas Pharma Ltd

Astra7eneca LIK Ltd

Auckland District Health Board

Autism Speaks

Autonnic Research Ltd

Aviva UKGI Risk

BAF Systems (Operations) Ltd. Barking, Havering and Redbridge Hospitals NHS Trust

Barnet and Chase Farm Hospitals NHS Trust

Basingstoke and North Hampshire NHS Trust

Bayer Innovation GmbH

Bayer Pharma AG

Beaufort Research Ltd

Better You Ltd

Big Lottery Fund

Bill & Melinda Gates Foundation

Biotechnology and Biological Sciences Research Council Birmingham Children's Hospital NHS Foundation Trust

BP Amoco Chemical Company

Bradford Teaching Hospitals NHS Foundation Trust

Breast Cancer Campaign

British Academy

British Association for Applied Linguistics

British Council British Heart Foundation

British Mycological Society

British Neuropathological Society

British Ornithologists Union

British Psychological Society

British Society for Gene Therapy

BUPA Foundation

CADW Welsh Historical Monuments

Cambridge University Hospitals NHS Foundation Trust

Cancer Research & Genetics UK

Cancer Research LIK

Cancer Research Wales

Cancer Vaccine Institute

Canterbury District Health Board Capital Shopping Centres Group Plo

Cardiff & Vale NHS Trust

Cardiff & Vale University Health Board

Cardiff Partnership Fund Ltd

Carnegie UK Trust

Central Manchester and Manchester Childrens University NHS Trust

Charles Wolfson Charitable Trust

CHDI

CHEM Trust

Chesterfield Royal Hospital NHS Foundation Trust

Chiang Ching Kuo Foundation Christie Hospital NHS Trust

Christine Baltzer Parks Environmental Foundation

Chroma Therapeutics Ltd.

City and County of Swansea

City Hospitals Sunderland NHS Foundation Trust

Cobham CTS Ltd

Cogent Power Ltd

College of Optometrists

Commission of the European Communities Commonwealth Scholarship Commission

Communicate Research Ltd

Compton Group Constructing Excellence in Wales

Convatec Ltd

Coopervision Ltd COPDEND

Council for British Research Levant

Countess of Chester NHS Foundation Trust

Countryside Council for Wales

Cyclacel Ltd

Deafness Research UK

Demential & Neurodegenerative Diseases

Department for Environment Food & Rural Affairs

Department of Health Derek Williams Trust

Dermatology Forum for Wales

Deutsche Boerse AG

Diabetes Research & Wellness Foundation

Doncaster & Bassetlaw Hospitals

Welsh Water

EADS Deutschland GmbH EADS Foundation Wales Eckert & Ziegler EUROTOPE Gmbh

Economic & Social Research Council

Embassy of the Arab Republic of Egypt

Engineering and Physical Sciences Research Council English Heritage

Environment Agency Environment Agency Wales Epilepsy Research UK

Esmée Fairbairn Foundation European Aviation Safety Agency

European Society of Clinical Microbiology and Infectious Diseases

European Space Agency European Thermodynamics Ltd Experimental Psychology Society Exxon Mobil Research & Engineering Co. Federation of Small Business Wales

European Huntington's Disease Network

Fight for Sight Finite Element Analysis Ltd Ford Motor Company Ltd

Forest Laboratories LIK Ltd.

Freescale Semiconductors France SAS

Fresenius Kabi Ltd

Fundação para a Ciência e a Tecnologia

Fusion IP Gama Healthcare

General Optical Council

Genetics Society Genzyme Europe B.V.

Genzyme Therapeutics Limited

GlaxoSmithKline Research & Development Ltd

Great Britain Sasakawa Foundation

Great Ormond Street Hospital for Children NHS Trust

Great Western Hospitals NHS Foundation Trust Grupo AC Marca SI

Haag Streit UK Ltd

Halcrow Group Ltd

Health & Safety Executive Health & Safety Laboratory

Health Protection Agency

Healthcare Learning Company

Healthcare Quality Improvement Partnership Heart of England NHS Foundation Trust

Heatherwood and Wexham Park Hospitals NHS Foundation Trust

Helmholtz Virtual Institute of Complex Molecular Systems in

Environmental Healtl Henkel AG & Co. KGaA

Herley Hospital Higher Education Academy

Historic Scotland HJB Charitable Trust

Hong Kong Alumni Association

Human Fertilisation Embryology Authority

Imperial College London IMV Corporation ETC

Inspiration Biopharmaceuticals Inc Institut de Recherche Pierre Fabre

Institute of Head and Neck Studies (InHANSE)

Institution of Structural Engineers

Istituto Nazionale di Alta Matematica

INTACH LIK Trust

International Greetings UK Ltd

International Transport Workers Federation

Invista Textiles (UK) Ltd

ISRRT

Jacobs UK Ltd

Jaguar Cars Ltd

James Paget University Hospitals NHS Foundation Trust Jean Rich Foundation

Joseph Rowntree Foundation Juvenile Diabetic Research Fund Kettering General Hospital NHS Trust

Kidney Wales Foundation Kinki University

Kumamoto Leading Technology Developments Ltd

Legal Services Board

Leukaemia & Lymphoma Research Liverpool Women's NHS Foundation Trust

M&A Pharmachem Ltd

M/A COM Technology Solutions (UK) Ltd Macular Disease Society

March of Dimes Birth Defects Foundation

Marie Curie Cancer Care

Mason Medical Research Foundation Meda Pharmaceuticals Ltd Medical Research Council

Merck KG & A Mid Cheshire Hospitals NHS Trust

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and Conferences

Middlesex University Mid-Staffordshire General Hospitals NHS Trust Milton Keynes Hospitals NHS Foundation Trust Mind Monmouthshire Motor Neurone Disease Association Movember Foundation Multiple Sclerosis Society Myristica Trust Myrovlytis Trust Nanotether Discovery Science Ltd Napp Pharmaceuticals Limited National Assembly for Wales Commission National Eve Research Centre National Grid Flectricity Transmission Plc National Institute for Health and Clinical Excellence National Institute for Health Research National Institutes of Health National Instruments Comoration UK Ltd National Leadership & Innovation Agency Healthcare National Prevention of Cruelty to Children National Science Learning Centre Natural England Natural Environment Research Council Neath Port Talbot County Borough Council NESTA Operating Company Neurofibromatosis Association UK Newlife Foundation for Disabled Children NHS Avrshire & Arran NHS Forth Valley NHS Foundation Trust NHS Greater Glasgow & Clyde NHS Highland NHS Lanarkshire NHS Tayside NHS Trust Doncaster Royal Infirmary Nice-Pak International Itd Nichol Young Foundation Niemann-Pick Disease Group (UK) Nippon Foundation North Bristol NHS Trust Northampton General Hospital NHS Trust Northeast Gas Association Novartis Pharmaceuticals UK Ltd Novimmune SA Nucana Biomed Ltd Nuffield Foundation NXP Semiconductors Netherlands B.V. NYSFARCH OFF Office for National Statistics Old Bell 3 Ltd Oral and Dental Research Trust Oraldent Ltd OSTC Wales Palestine Exploration Fund Parkinson's Disease Society Parkinson's LIK Patterson Medical Ltd Pennine Care NHS Foundation Trust Peterborough & Stamford Hospitals NHS Foundation Trust Pfizer Ltd Populus Limited Prada Willi Syndrome Association Prostate Cancer UK Psoriasis and Psoriatic Arthritis Alliance Public Health Wales OBjotics Ltd RCBC Wales Reardon Smith Nautical Trust Regeneris Consulting Ltd. Restorative Solutions Richards & Appleby Ltd Rolls Royce

Ricardo UK Ltd

Royal Academy of Engineering Royal Berkshire NHS Foundation Trust Royal Bournemouth & Christchurch Hospitals NHS Foundation Trust Royal College of Midwives Royal Embassy of Saudi Arabia Royal Liverpool and Broadgreen University Hospitals NHS Trust Royal Society Royal Society for the Protection of Birds Royal United Hospital Bath NHS Trust Ruskinn Technology Centre Samsung Advance Institute of Technology Samsung Electronics UK Ltd Santander UK PLC Sasol Technology (PEY) Ltd Scania CV Aktiebolag Science & Technology Facilities Council Sheffield Teaching Hospital NHS Foundation Trust Shell Research Ltd Sir Samuel Scott of Yews Trust Skyline Diagnostics BV Society for Computing and Technology in Anaesthesia Society for General Microbiology Society of Antiquaries of London Society of Biology Society of Endocrinology SOITEC South Devon Healthcare South Devon Healthcare NHS Foundation Trust South London Healthcare NHS Trust South Wales Women's Football League SP POWER Spanish Ministry of Education & Science St David's Society of Hong Kong St James Dental Pratice St Paul's Thursday Group Sunesis Pharmaceuticals Inc. Syngenta Ltd Systagenix Wound Management Tanners Wines Ltd Tata Steel UK Ltd Technology Strategy Board Teenage Cancer Trust Tenby Tangent Club Tenovus Texas A & M University The Dunhill Medical Trust The Fisheries Society of the British Isles The Guide Dogs for the Blind Association The Health Foundation The Higher Education Academy The Hillingdon Hospital NHS Trust The Hospital Saturday Fund (HSF) The Huntington The Inner Wheel Club of Newport The Jacob Wallenberg Foundation The Leeds Teaching Hospitals NHS Trust The Leverhulme Trust The Mammal Society The Scottish Accountancy Trust for Education and Research The Waterloo Foundation ThermoFisher Scientific UCB Celltech UK Biobank UKIFRI Unilever UK Central Resources Ltd. United Kingdom Occupational Therapy Research Foundation

Universidade de Aveiro

University Hospital Birmingham NHS Foundation Trust

University Hospital Bristol NHS Foundation Trust

University Hospital of North Staffordshire NHS Trust

Universitaet Ulm

University of Bristol

University of Chicago

University of Sheffield

University of Surrey

University of West of England Velindre NHS Trust Visit Wales Warren Geotechnical Associates Limited Wellcome Trust Welsh Assembly Government Welsh Assembly Government (A4R) Welsh Assembly Government (WORD) Welsh Crucible Welsh Furnnean Funding Office Welsh Government Welsh Government (NISCHR) Westlea Housing Association Ltd William W Mushin Trust Fund Wolters Kluwer Health P&F Ltd Worcestershire Acute Hospitals NHS Trust York Hospitals NHS Foundation Trust Individuals Julia H Addams-Williams Lawrence S Addicott Ross Akers Maria J Albertelli Tauhid Ali Brenda Allan Craig G Alliss Rizkar Amin Ionathan C Andrews Samir Antoine Regina B Appah

James A Bell John A Renjamin Emma Bennett Helen Bennett Patrick R Benson Zena Bentley Ian R Besant Eileen M Best Andrew J Bevan Gillian Bevan Clive M Revitt Beryl Apsitis Chetan Bhave Wala M Ashi F Bibey Rachel C Ashton Robert Biggs Sheila Ashworth Florence M Bill Christopher M Asprou Lynn Billington Anna C Auchterlonie Eve M Blakemore Peter Avery Graham P Rooker Gareth C Baher Giselle Boucher Michael Bagshaw Lois N Bougnague Margaret Baily Catherine Boulter Angela M Baker E Sian Bowen Gill Bowen Freda Baker Kate Bradbury Mark A Baker Matt Raker David I Bradley Ronald Baker Rachel E Bradshaw Olumuyiwa Bamgbade Eleanor Breeze Bhavraj S Bamrah Catriona Brennan Stephen A Bancroft Corinna J Bretland Malaya K Banerjee Rhian Brett Tony K Bannard-Smith Michael Brooker Alan P Barclay Ian C Brookfield David Broomfield Jason Barker Andrew Rames Karen F Brown Susan F Barnes Marilyn Brown In F Barraud Matthew I Brown Thomas J Barrett Richard A Brown Mark Barrow Stenhen I Brown Sharon Burgess Gavin R Barry Andrew P Bartley Catharine L Burkey Katy F Rass Carole Burnett Rebecca Batt Judith A Butche Andrew R Battle lane Calnan Rebekah Bawler Andrew M Campbell Mona M Bayoum Ann P Canham Paul Beauchamp Dean F Capon Paul Beaumont Mary Capp Anne J Beck Joanne Capper Sarah L Beecham Peter Carley Katharine Beer Francesco M Casella Owen Beesley Louise Casella Margaret M Cason Peter Beeston

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