Gazette Supplement



Oration by the Vice-Chancellor

The Research University

Colleagues, members of Congregation, it's a great pleasure to welcome you here this morning. Thank you for joining me.

By long tradition, this annual Oration provides the Vice-Chancellor of the day with an opportunity to take stock of our university at the start of a new academic year - looking both back and forwards. Well, there's no doubt - looking back - that the dominant topic of the last twelve months for this university, as for others, has been the intense and complex debate over undergraduate funding. And it may be, given that intensity, and given the continuing uncertainties of what may flow from it, that you will be expecting me to focus on that same absorbing topic this morning. Well, if that is the case, I fear I am going to disappoint you. Not because I think there is no more to be said on the subject. Far from it. But because - with the new regime not due to come into force for another twelve months - there will be time and place aplenty to discuss the likely consequences, both intended and unintended.

But I also plan to focus elsewhere this morning for another very important reason. The intense debate on undergraduate provision and teaching has, perhaps inevitably, diverted attention away from an equally significant aspect of Oxford's educational mission: our role as one of the world's leading centres for academic research, as a place creating important new knowledge as well as distilling and communicating existing knowledge. So it is on the challenges we face in sustaining Oxford's outstanding research that I want to focus this morning. Funding will inevitably form a major strand of those thoughts, as will the associated challenge of adequate financial support for graduate students, without whom many of the roots of our research would soon wither and die.

And, in fact, as I remarked in my Oration last year, there is an important sense in which the distinction between teaching and research is in any case a false, or at least a misleading one. As I noted then,

Those of us who toil in the Groves of Academe know full well that our research helps inform our teaching as we lay out to students the shifting boundaries of knowledge. And our teaching, probed and challenged by bright students, brings new perspective and direction to our research questions. For the students, whether graduate students in our libraries and laboratories or undergraduates in our classrooms and tutorials, there is no educational experience more profound than being taught by those who themselves are repositioning those intellectual boundaries.

In other words, this is a truly virtuous circle, and if my focus this morning is not directly on undergraduate study, I hope and believe that what I have to say is nevertheless highly relevant to it.

One of the contexts in which we at Oxford, in common with other UK research-intensive universities, need to be thinking about our research activity is the government's new Research Excellence Framework, or the REF as it's affectionately known. Can't you just imagine those future newspaper headlines such as: *Universities Cry 'Foul Ref!*? One of the novelties of the REF is devising tools to measure the 'impact' of research. Who knows, perhaps even this speech might one day register, however slightly, on the 'impact' scale.

But in truth, wherever you look across the university, the range and quality of research at Oxford is truly remarkable. I know this personally from my discussions with colleagues in the Department of Chemistry and across the university, but it is objectively clear from Oxford's consistently excellent performance in the predecessor of the REF, the Research Assessment Exercise. It is also reflected in the fact that Oxford's external research income comfortably exceeds that of any other UK university, as well as in the number and range of successful research grant applications.

Let me try to illustrate something of the scale and dynamism of our research enterprise, beginning with the fact that, of the university's operating income of nearly £900m for 2009/10, more than half of that was for research.

In the last few months alone, the Biomedical Research Centre within the Medical Sciences Division received five-year funding of £98m from the National Institute for Health Research; the new Social Sciences Doctoral Training Centre received £15m - more than any other single institution - to fund forty-five postgraduate studentships every year for five years from the Economic and Social Research Council; and in Mathematical, Physical and Life Sciences, two of the four L'Oréal UK and Ireland fellowships for Women in Science went to researchers in the Department of Chemistry and the Dunn School of Pathology. The Humanities Division, which has trebled its research income since 2006/7, has recently received £225,000 over three years for postgraduate studentships from the Wolfson Foundation, a sum which the university is matching from philanthropic donations. And at the end of last week, we received a cheque from the Mellon Foundation for US\$2m for postdoctoral fellowships in the Humanities.

This gives just a flavour of our success in generating research income. But what of our research output; what are we doing with the money? Here too the evidence is enormously impressive and I will give just a few examples to illustrate.

In Medical Sciences, a study by the Department of Clinical Neurology found that a daily low dose of aspirin can reduce by 20% the number of deaths from a whole range of common cancers. In February the first babies were born in the UK using a new chromosome-counting technique pioneered at Oxford University to select the best embryos for IVF. In March, scientists at the Department of Physiology, Anatomy and Genetics developed a new method for delivering complex drugs directly to the brain, a necessary step for treating diseases like Alzheimer's, Parkinson's, Motor Neuron Disease and Muscular Dystrophy. And, looking to the future, we have high hopes that the new closer relationship with Oxford's hospitals will produce significant benefits in terms of research, teaching and patient care.

In the Mathematical, Physical and Life Sciences Division this year, scientists discovered the world's oldest fossils, whose existence suggests that there was life on earth more than 3.4 billion years ago. In June, an international panel, led by Professor Alex Rogers of the Department of Zoology, issued a preliminary report of their findings that the world's oceans are at risk of entering a phase of extinction of marine species unprecedented in human history, with nine million species in danger if coral reefs are destroyed. It was discovered that meat grown using tissue engineering techniques would generate up to 96% fewer greenhouse gas emissions than conventionally produced meat, while a team from the Department of Materials found that a new way of splitting layered materials like graphite into sheets of material just one atom thick could lead to revolutionary new electronic and energy storage technologies.

In Humanities, an Oxford-led project began this year to investigate a swathe of untouched coroner's reports from Tudor England. Historians have already discovered the report concerning Jane Shaxspere, a young girl whose manner of death - falling into a river while picking flowers - could have provided the inspiration for the account of Ophelia's death in Hamlet. These reports could significantly improve our understanding of life in Tudor England and they are so detailed that, where one man is recorded as having been killed by a performing bear, it is even noted that the bear was valued at 26s 8d! A study in the Faculty of Linguistics. Philology and Phonetics has sent researchers to Indonesia to document a language which is spoken by only three people. Oxford has continued to lead the way in digitisation programmes in the Humanities and the past academic year saw the launch of CLAROS: the world of art on the semantic web; Around 1968, a digital archive of interviews with 1968 activists; and Ancient Lives, a collaboration between the Departments of Classics and Astrophysics, which asks the public to help in the study of fragments of papyri.

In the Social Sciences Division, the Migration Observatory was launched in the spring, aiming to provide an evidence-based impartial assessment of one of the major topics of national debate in Britain. In June, the Observatory's analysis of the UK's migration policy showed that the government was set to miss its net migration target by more than 65,000 by the close of parliament. Research by David Anderson. Professor of African Politics, into missing files from the Mau Mau rebellion made him a crucial witness at the trial brought by four Kenyans against the British government at the High Court. A recent study showed the lives of 600,000 infants could be saved each year by giving vitamin A supplements to those in countries where they are at risk of having a poor diet.

I have given just a few examples from across the academic range of our university; I could have given literally scores more. Inevitably, research of such depth and range does not come cheap. But before moving on to consider in more detail the vital question of how it can best be sustained in the future, it is also important to say something about its purpose. Self-evidently some new knowledge will have clear practical application; but some may not, or may seem to have very little at the time. It was, I think, Werner von Braun who remarked, 'Research is what I'm doing when I don't know what I'm doing.'

Sir Thomas Bodley, the sixteenth-century benefactor of the world-famous library that bears his name, built up collections in languages such as Chinese and Arabic, which no one in Oxford could read at the time but which are now recognised and celebrated as treasure troves for international scholarship. Bodley was clearly relaxed about the sometimes unpredictable inefficiencies of academic inquiry; he wrote of the 'natural and beneficial profligacy of ideas and exploration'.

Government and other public funders may be rather less relaxed. The fact that the fruits of knowledge can be unpredictable or slow to ripen does not always sit easily with short-term political imperatives, least of all in a time of serious economic downturn. This should not be a matter of great surprise but it should be a matter for careful reflection, not least among those seeking to shape both the economic and educational future of any developed or, for that matter, developing nation. In reality some of the less direct public benefit that academic research can bring may not fit easily or neatly with government timescales or official metrics. But that does not mean that the benefit cannot be both real and enduring

Successive governments in this country and elsewhere have tended to see the great appeal and function of university research activity as providing direct benefits to the economy, through applied research and technology transfer. In 1993, the government of John Major produced a White Paper entitled *Realising our potential*. It called for wider and deeper links between academia, the public science, engineering and technology base, and industry. That theme has been echoed in many reports since, and we now await another with the publication of an *Innovation and Research Strategy* from the coalition government by the end of the year.

Certainly in comparison with the deep government cuts to university teaching grants, funding for research has fared relatively well. It will be important to see how this develops. But the evolving mantra of doing more with less is not an approach that will commend itself to researchers facing increasingly stiff international competition.

It is dispiriting to say the least to learn that the share of GDP the UK spends on higher education has fallen to 1.2%, thereby pushing it still further down the OECD index, and further behind the international average. And this is while public expenditure on universities elsewhere is expanding. When other governments are ramping up investment in higher education, particularly for research, treading water will not be enough.

The international trend is clear. China has a project to make two universities - Tsinghua and Beida among the best in the world, and is investing over US\$280m per institution per year in pursuit of that goal. In all, China is aiming to create more than one hundred leading universities in the course of the century. The observation that the Chinese are starting from a much lower base than in the UK may be true, but scarcely does justice to the scale of the challenges that are looming.

However, it would be wrong to suggest that it is only about competition. It can also be about collaboration. There are many examples across Oxford of leading-edge research being carried out in partnership with other outstanding universities and organisations. The point is that if a university is not in a position to compete at the highest level, it is unlikely to be in a position to collaborate at that level either.

A related question to the amount of national public investment in university research is the spread, or conversely the concentration, of that investment. Here in the UK it surely makes sense, at a strategic policy level, to focus hard-pressed public money where it can be most effective in delivering the highest-quality research. At a political level, though, there are always likely to be pressures to make sure that everyone gets a share. For a university like Oxford, with its unswerving commitment to excellence, it is pretty obvious where the balance of the argument lies.

At the outset of this speech, I indicated that I would focus not just on issues of research investment but also on the related challenges of graduate funding; related not least because the health of the UK's research base depends critically on the supply of talented graduates. Research students in particular are the engine of groundbreaking experimentation, and just as they are drawn to working here with leading academics, so too are we able to recruit the best academics because of the quality of Oxford's research students. In addition, and no less valuably, they enhance the intellectual life of the collegiate university, and they provide a considerable proportion of the next generation of academic leadership both in the UK and internationally.

The growth in graduate student numbers at UK universities has been one of the major but less publicly acknowledged shifts in higher education over the last two decades. In the UK as a whole, the total has increased more than three-fold. In the same period, undergraduate numbers have approximately doubled. Here at Oxford while undergraduate numbers in recent years have remained stable, the growth in graduate students has been steep and rapid. They now account for more than 40% of the overall student body. In the last five years alone, applications for graduate study at Oxford have risen by more than 60%.

Another significant aspect of our graduate student body is its international character. Threequarters of applicants come from outside the UK. Oxford currently has students from more than 140 countries, many of whom will use the knowledge and skills they have gained here to make significant contributions back home. I think, for example, of our masters course in Global Health Science which equips students to assume leadership positions in major healthcare organisations and national ministries of health. I think too of Oxford alumni with doctoral degrees, who include the Prime Minister of India, the US Ambassador to the United Nations, and the Governor of the Bank of Canada.

But, as with research investment, competition for the most able graduate students is intensifying in what is increasingly a global market for talent. Our competitors are not only in the Ivy League but in places like China and India. China now attracts 265,000 foreign students every year. That is a greater number than the 180,000 Chinese students who study outside China annually. And the competition can be very well heeled. A growing number of US universities provide full five-year funding packages for almost all of their doctoral students. By contrast, at Oxford, only just over one in two of our doctoral students are on full scholarships; for the Social Sciences and Humanities the figure is less than one in three.

Even fewer taught graduate students are funded from public sources. This is a particular issue in the Humanities and Social Sciences, for while many students read for these degrees as a stand-alone, professional qualification, they also form the first step toward a doctoral degree. Without funding for taught courses, the masters degree becomes a broken bridge to the doctorate.

Against this rapidly evolving and increasingly challenging international backdrop it is both noteworthy and regrettable that the recent government White Paper on higher education gave graduate studies scant attention. In Oxford's response to the White Paper we called for further work to be done on this now-crucial aspect of higher education. Last year Professor Sir Adrian Smith produced a review for the government entitled One Step Beyond: Making the most of postgraduate education in the sector. In its response the government stated that it planned 'no further changes to postgraduate funding' though it would keep the matter under review. In reflecting on this unsatisfactory state of affairs, I have to confess I was reminded that One Step Beyond is the signature tune of a group of musicians rejoicing in the name of Madness. How fitting.

But this is really not a joking matter. It is hard to escape the logic of the argument: if this competitive disadvantage in funding is not addressed, the UK higher education sector will increasingly lose out to its international competitors on the recruitment of the best students and the best academics. There are sadly too many examples of Oxford losing bright graduate students to overseas universities because of the funding gap. It is the single biggest reason why those to whom we make offers turn us down.

And there is another aspect to the problem, which relates directly to the continuing UK debate about equality of opportunity and enhanced social mobility. One of the reasons that students now go on to seek higher degrees is that it is an advantage or even a requirement for future career prospects and not just in academia. It has often been argued in the past that graduate study is more akin to a lifestyle choice: something you can do if you wish to and can find the funds. But that argument rings increasingly hollow. If part of the point and benefit of higher education is to enhance individual life and career prospects, then major funding barriers to the kind of study that can do a great deal to enhance those prospects is hardly equitable, or likely to promote the social mobility that is such an important part of the current higher education debate. As a 2009 government report stated: 'Postgraduate qualifications, both from taught and research courses, are increasingly a necessity for careers in the public and private sectors alike."

It is surely time, as we have urged, for a fresh look by policy makers. It is striking, for example, that there is nothing in the UK to compare with the US government's federal loans scheme, to enable graduate students to finance their study.

Meanwhile graduate scholarship funding from government sources in the UK is declining. In July, HEFCE's Overseas Research Students Award Scheme came to an end, a scheme which at its peak provided £1.5m annually to support overseas graduate students at Oxford. In addition, research council scholarship funds for UK and EU students are diminishing, although an initiative by all seven research councils to match-fund their graduate scholarships does at least offer some new options.

Politicians, not unreasonably, often like to turn the question round and ask: What are you doing about it? The answer at Oxford is: a great deal. Increasing support for graduate scholarships is a major priority of the *Oxford Thinking* fundraising campaign, which has proved such an outstanding success and which is now fast approaching the initial target of £1.25bn.

In the long term, we aim to offer needs-blind admission to attract the most talented graduate applicants from around the globe. Our strategic objective is to provide full funding packages covering all fees and living costs to the majority of students studying for doctorates and steppingstone masters degrees.

Already we invest significant and increasing collegiate university resources in graduate scholarships. Notably, this term sees us celebrating the tenth anniversary of our flagship graduate scholarship scheme, with the one thousandth Clarendon Scholar joining us in Oxford this week. Oxford University Press now provides £7.5m each year to support Clarendon Scholars, generously supplemented by £1m from some two dozen colleges working in partnership, and £1m from external donors. Across our departments and colleges, a further £13m in graduate scholarships is given out each year.

We are also fortunate in having highly prestigious externally funded graduate scholarship schemes at Oxford. Rhodes is of course the most famous. Much more recent but also visionary is the Weidenfeld Scholarships and Leadership Programme, which aims to cultivate the leaders of tomorrow from transitional and emerging economies. As one recent corporate donor of graduate scholarships observed: 'In universities are our future prime ministers, our future directors of large companies, our politicians. They are studying in our universities now so there is no better investment than in higher education.'

As I have already signalled, the significance of philanthropy in supporting ground-breaking research at Oxford is hard to overestimate. If one looks at recent major developments round the university, the generosity of our donors has been, and remains, key. The Oxford Martin School, the Saïd Business School, the Blavatnik School of Government and the Smith School of Enterprise and the Environment are all potent examples of how philanthropy, in association with rigorous academic values, can shape and inspire research that changes how we understand the world and how we respond to its complex challenges.

We must and will continue to work hard to attract still greater philanthropic support for our worldleading research. But the sometimes highly targeted nature of major giving means that it will also be vital to go on developing the diversity of our research funding base. Noteworthy in that context is the rapid growth of overseas support. In 2004/5 this totalled £28m for research in Oxford; by 2009/10 the figure had more than trebled to £89m, by far the best performance among UK universities.

But for all the drive towards greater diversity, government support for research remains crucial. Governments can bring resources to bear on a scale that dwarfs every other funding stream. And that is true not just here but also in the United States, where universities are often thought to have to fend for themselves in the market. In reality most research income for US universities flows from government. At Harvard it is a whopping 80%; for Oxford last year it amounted to just over 40%. You can see why we attach such importance to future UK government intentions.

But the wider world is not only a major source of research funding. It is also, as already noted, a vital source of academic talent. I have described the challenging financial context in which we are competing to attract that talent. But the obstacles, sadly, are not just financial. There are also constraints on the free movement of students and staff. Across the globe the number of students studying abroad has risen by more than three and a half million, an increase of three-quarters in a little over a decade. In economic terms, the UK higher education sector earns more than £5bn per annum for the UK economy.

Restricting the free flow of the brightest and best academics and students is an area where heeding the experience of the US may serve us well. The numbers of international students in the US dropped after 9/11 following a tightening of student visa regulations. Economic recession and currency exchange rates played a significant part, but it was widely accepted that visa regulations were a key factor in a 20% drop in student visas in 2002. The total enrolment of foreign students declined in 2003 (for the first time in two decades) and again in 2004. It was not until 2005, when there was investment to speed up the procedures and some rules were relaxed, that student numbers began to rebound.

Here in the UK, new lower limits on the numbers of international academics we can recruit or retain poses serious risks - both scholarly and economic. Difficulties over visa applications as a result of current regulations and restrictions - and I could detail a number of examples from recent months - threaten if unchecked to affect adversely the academic health of the university. And while I am pleased at the recent assurances given by ministers over their willingness to work with the HE sector and with the UK Border Agency to remove what have been described as 'obstacles to the essential business of global intellectual exchange', nevertheless I feel bound to point out, in rather more home-spun fashion, that the proof of the pudding is in the eating.

I have by now learned that the Public Orator is able, effortlessly, to upstage the Vice-Chancellor each year in June by recounting the achievements and awards of their colleagues within the university. As last year, I will not repeat those many achievements and honours, but I should like to highlight, in this written version of my Oration, two awards that speak to the regard with which Oxford academics are viewed by their international peers. The first is the recent Balzan Prize awarded to Professor Joe Silk, Savilian Professor of Astronomy; the second the award of the Cundill Prize in History to Professor Diarmaid MacCulloch, for his History of Christianity: The First Three Thousand Years. Another achievement I should like to mention is one that reflects well on academic and administrative colleagues who have worked so hard on our summer school programmes, as well as on those attending them. Of those attending the inaugural UNIQ summer school in 2010 who went on to apply for an undergraduate place here at Oxford, starting this term, over 39% were successful, against an overall success rate for Oxford applications of around 20%.

I should like to record my gratitude to those Heads of House who have retired, and who have, over the past two years, provided me with advice, encouragement, and comradeship: Mr Richard Smethurst, Provost of Worcester; Dr Diana Walford, Principal of Mansfield; Professor Andrew Goudie, Master of St Cross; Mr Andrew Graham, Master of Balliol; Professor John Landers, Principal of Hertford; and Professor Roger Cashmore, Principal of Brasenose. I look forward to working with their successors, respectively: Professor Jonathan Bate, Baroness Helena Kennedy, Sir Mark Jones, Professor Sir Drummond Bone, Mr Will Hutton and Professor Alan Bowman.

I should also like to take this opportunity to thank a number of close colleagues within the university administration who have supported me during the last year, but who have moved on in one way or another. My thanks go again to Dr Julie Maxton, who stepped down as Registrar in January, and was succeeded by Professor Ewan McKendrick. He was succeeded as Pro-Vice-Chancellor (Education) by Dr Sally Mapstone, who, in her turn, was succeeded as Pro-Vice-Chancellor (Personnel and Equality) by Dr Stephen Goss. Professor Tony Monaco was appointed as President of Tufts University, and has been succeeded by Professor William James as Pro-Vice-Chancellor (Planning and Resources). Professor Sally Shuttleworth stepped down as Head of the Humanities Division during the summer, and her place has been taken by Professor Shearer West. Ms Sue Cunningham resigned as Director of Development to become Vice-Principal of Advancement at the University of Melbourne. Her place as Director of Development has been taken by Ms Liesl Elder. Ms Christine Fairchild has joined us as Director of Alumni Relations, in succession to Lady Kenny.

This year has seen the retirement of many distinguished colleagues who have contributed to the university's intellectual life over the

years: Dr Judy Bastin; Professor David Bethea, Professor of Russian Studies; Dr Glenn Black; Mrs Irene Boller; Dr Jonathan Boyd; Professor Oliver Braddick, Professor of Psychology; Professor Judith Brown, Beit Professor of the History of the British Commonwealth; Mr Peter Brown; Dr Ros Burnett, Reader in Criminology; Dr Hugh Cartwright; Professor Thomas Charles-Edwards, Jesus Professor of Celtic; Professor Robin Cohen, Professor of Development Studies; Mr Peter Conrad; Mr Anthony Courakis; Dr Thomas Cunnane; Dr Christine Cuthbertson; Mr Chris Day; Professor George Ebers, Action Research Professor of Clinical Neurology; Professor Robert Evans, Regius Professor of History; Professor Michael Freeden, Professor of Politics; Professor David Gaffan. Professor of Behavioural Neuroscience: Professor Michael Goldacre, Professor of Public Health: Professor Robert Griffiths, Professor of Mathematical Genetics; Dr Peter Grout; Dr Kunde Guo; Professor Ralph Hanna, Professor of Palaeography; Dr Phillip Harries; Professor Barbara Harriss-White, Professor of Development Studies: Dr Felicity Heal: Professor Sir David Hendry, Professor of Economics; Dr Clive Holmes; Dr David Howlett; Dr John Hutchison, Reader in Materials; Dr Martin Ingram; Mr Michael Inwood; Dr Celia Kerslake; Dr Carol Leonard; Mr Kenneth Macdonald; Dr Angela Maciel; Professor Klim McPherson, Visiting Professor in Epidemiology; Dr Jaromir Malek; Professor Helen Mardon, Professor of Reproductive Science; Dr Piers Nye; Mr Bernard O'Donoghue: Professor Avner Offer, Chichele Professor of Economic History; Professor Neville Osborne, Professor of Ocular Neurobiology; Mr Tom Paulin; Professor Ken Peach; Dr Karen Pulford, Reader in Immunodiagnostics; Professor Graham Ross, Professor of Theoretical Physics; Dr Chris Sauer; Dr Carl Schmidt; Professor Avi Shlaim. Professor of International Relations: Dr David Shotton, Reader in Image Bioinformatics; Professor Joe Silk, Savilian Professor of Astronomy; Professor Edith Sim, Professor of Pharmacology; Professor Derek Siveter, Professor of Earth Sciences; Professor Fred Taylor, Halley Professor of Physics; The Revd Dr Colin Thompson; Dr Piet van Boxel; Dr Ralph Walker; Dr David Watkin; Professor Andrew Wilkinson, Professor of Paediatrics; Professor Adrian Wood, Professor of International Development; and Professor Roger Zetter, Professor of Refugee Studies.

I would also like to mention those other colleagues who have retired from valued administrative, library or service posts in the university: Mr Robert Atkinson, Mr Joe Barclay, Mrs Sue Blackshaw, Ms Dee Broquard, Mr Nick Carver, Mrs Margaret Chapman, Dr Paul Davis, Dr Robert Gatten, Mr Alan Grace, Dr Mary Gregoriou, Mr Grahame J Hambleton, Mrs Brenda Hanson, Mrs Carole Harris, Ms Margaret Herdman, Mr Steve Howarth, Mrs Jill James, Mr Dana Josephson, Dr Tony Klepping, Mr Geoff Lescott, Mr Glenn Mcintyre, Mr Gerald Metcalf, Mrs Susan Miles, Mr Roger Mills, Mr Andrew Morgan-Giles, Mrs Jennifer Morton, Mr Richard Osmond, Miss Amanda Peters, Ms Margaret Robb, Mr Michael Simpkins, Mr David Smith, Mrs Julie Smith, Mr Paul Sullivan, Mrs Diane Thomason, Mr John Thomason, Dr Roger

Treweek, Mr Colin Wakefield, Dr Trevor Walton and Dr Jeremy Whiteley.

This year the university community has lost colleagues whose early deaths have been a source of great sadness: Mrs Gudrun Loftus, Senior Language Instructor in German; Dr Ann McPherson, Medical Director of the DIPex Research Group in the Department of Primary Health Care; Dr Peter Rellos, Senior Scientist at the Structural Genomics Consortium in the Nuffield Department of Clinical Medicine; and Lord Rodger of Earlsferry, High Steward of the university.

Finally, we pause to remember the contributions of those colleagues who have died in retirement over the past year: Professor Donald Blackwell, Professor Alison Brading, Mr Tony Butler, Professor David Cockayne, Miss Eileen Davies, Mr Paul Foote, Professor David Grahame-Smith, Mr Alfred Gunning, Dr Wilfred Halls, Mr Richard Hawkins, Mr Michael Howson, Miss Margaret Hubbard, Mr Geoffrey Hurst, Miss Margaret Jacobs, Miss Patricia Keen, Mr Wilfrid Knapp, Mr Gilbert McKay, Mr Robert McNeil, Ms Elaine Matthews, Professor Basil Mitchell, Mr Colin Moore, Professor Eric Newsholme, Dr James Porterfield, Dr Simon Price, Professor Daniel Quillen, Mr Julian Roberts, Mr Bede Rundle, Miss Mary Tregear, Lt Col Frank Walker, Dr John Wilders and Professor Zbynek Zeman.

In conclusion, having now completed two years as Vice-Chancellor of the university following my return after nearly three decades in the United States, it is no longer a matter of surprise to me that so much public attention should be lavished on Oxford's undergraduate life and character, and so relatively little on its graduate and research dimensions. True, we see a steady stream of media stories about research breakthroughs and advances, and very welcome they are too in the main. But they might have emerged from the far side of the moon for all the accumulated sense they convey of a living, breathing university community. And yet, as I hope I have gone some way to illustrate, this is an absolutely vital part of what a great university means in the twentyfirst century: vital to us here; vital to the cause of outstanding scholarship; vital to the economic wealth of the country; and vital to meeting the challenges that so beset our world.

That is why it is time for everyone who cares about these things (and really can anyone afford not to?) - be they politicians, policy-makers, opinion-formers or voters - to reassess the way we understand and the way we support our researchintensive universities, keeping clearly in view what they mean for our common future. Because unless we do that, the future will look and feel a pretty unappealing place.