



Hertford College News



Issue 23, 2013

Showcasing Physics at Hertford
Target Schools: Outreach
History Fellowship Fundraising Update

Contents

- 3 **Principal's Column:** Peeling Potatoes
- 4 **History Fellowship Fundraising:** Update
- 5 **Development News:** From the Members' and Development Office
- 6 **Alumni Events**
- 8 **College News:** Hertford at a glance
- 10 **A Brief Guide:** Target schools - Outreach
- 12 **Physics, Hertford Matters:** Interstellar Observations...
- 14 **Physics Alumni: Where Are They Now?**
Ian Morison, An Unusual Astronomer
Beyond Physics at Hertford
- 17 **Physics Student Showcase**
- 18 **Student Showcase**
- 20 **Dates For Your Diary**



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FRIDAY 27TH & SATURDAY 28TH SEPTEMBER 2013

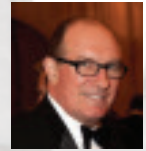
Bridge Centenary Celebrations



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Peeling Potatoes

Will Hutton
Principal

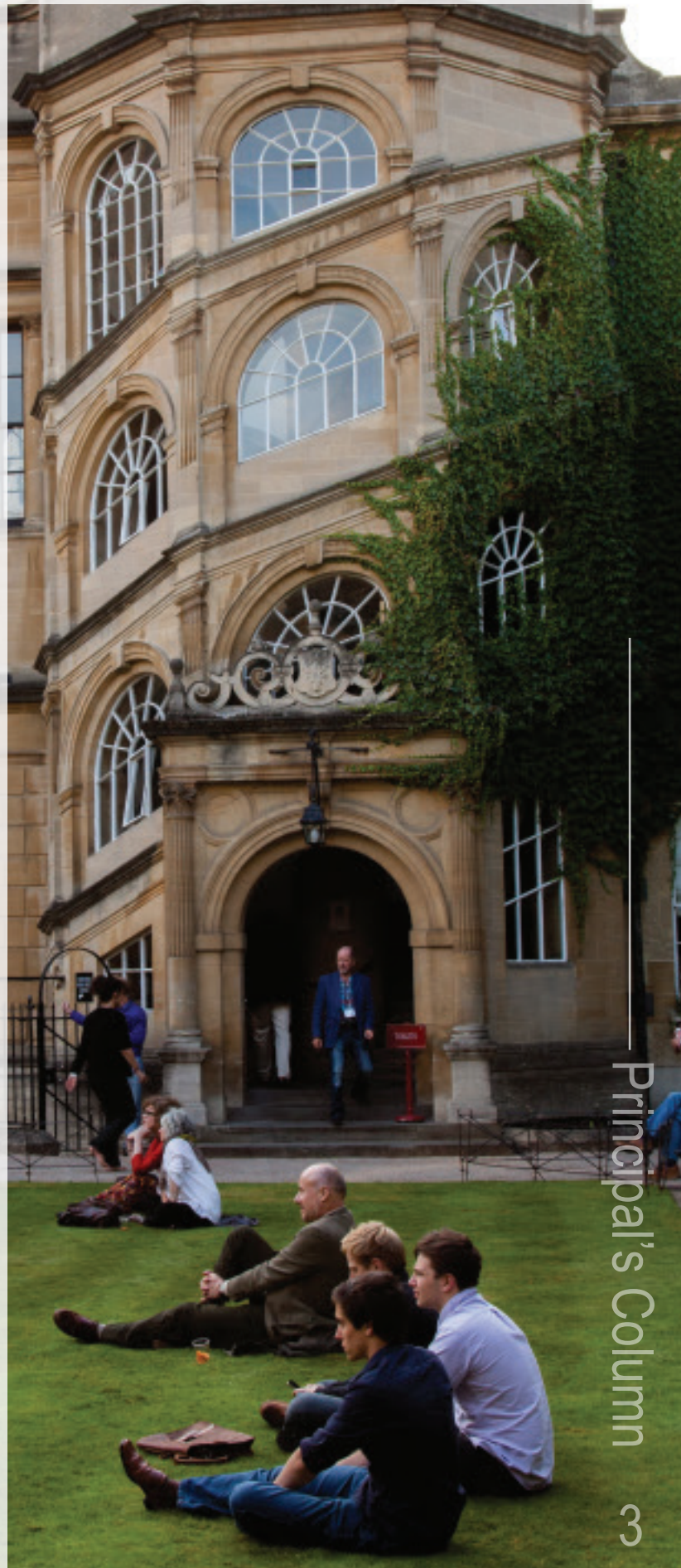


There's a memorable scene in Joseph Heller's *Catch 22* when one of the airmen peeling potatoes explains it is one of his favourite occupations: if you want to slow life down it is imperative to fill it with dull tasks. Five terms have elapsed at Hertford – a third of my time here – and it has gone so fast that I sometimes think I need the Oxford equivalent of peeling potatoes on a US air base in World War Two; perhaps recalibrating the Joint Resource Allocation Mechanism or reading 250 page papers on the Research Excellence Framework. They may be important (but they are not *War and Peace*) yet certain to make time pass more slowly! Part of the reason for the speed with which time flies is the amount of change at Hertford. In Michaelmas term we welcomed two new Fellows, Dr Jamie Lorimer in Geography and Dr Giora Sternberg in History, only to begin hiring a new Bursar to replace Simon Lloyd under whose watch our finances had been restored to health but for whom the attractions of working in forestry, his first love, had become impossible to resist. Then we advertised for a Registrar to take charge of the ever-increasing administrative work associated with academic life, and an Outreach Officer/Career Development Fellow to drive forward our commitment to promoting access and who would double up as a scholar for the balance of his time. Hard on their heels came the appointment process for a second Engineering Fellow and second Medical Fellow. To cap it all Hilary term ended with Paul Dryden, Development Director, deciding not to seek re-election as a Fellow and thus leaving the College. Paul laid solid foundations for us to lift our fund raising efforts. Within twelve months the top team at Hertford will have been almost entirely rejuvenated and expanded. We have even launched a new website!

In many walks of life, this degree of change would be normal: in an Oxford college it is pretty unusual. So more welcomes are in order. One is to James Lazarus who as our new Bursar has embraced his new role with extraordinary enthusiasm. Another is to Jamie Castell, Outreach Officer, who is visiting schools and taking delegations around the College with enormous zeal and charm – a man who is seemingly always smiling despite (or because of?) living in a house boat on the Oxford canal! There is more information about Jamie's work on p.10. And a third is to Matthew Hiscock who in a few short months has imposed himself on the multiple issues facing the College academically with calm professionalism – and again with great charm. Nor should I overlook the arrival of Graham May as our new Accountant who is building on Philip Dickson's legacy with considerable skill.

Nor is that all. There have been the *Hertford Conversations* to organise. Two notable events were Hugh Grant's visit to give a candid and amusing explanation of his advocacy of greater oversight of the press, and the Deputy Governor of the Bank of England, Paul Tucker, who gave a masterly, if sober, assessment of our current economic ills. Hasso Plattner, the founding shareholder of the giant and dynamic German software company SAP and often described as Europe's Bill Gates, visited in December to begin his exploration of what Hertford and Oxford might offer his company – and we to learn what his company might offer us. I visited Japan and Hong Kong for a week in January: a visit master-minded by Tomo Suzuki, Fellow and Tutor in Accounting, to connect with some notable Japanese companies. In Hong Kong, I enjoyed meeting a number of alumni at a lunch at Jardine Mattheson, hosted by Mark Greenberg (History, 1987), with breathtaking views over the city and a very good discussion about the likelihood of a Chinese Spring in the next decade.

I cannot allow this opportunity to pass without alerting you to our centenary celebrations of the *Bridge of Sighs* later this year – or, as some would have it (dropping any reference to sighs), the Hertford Bridge. The centrepiece will be talks, events, lectures, drinks and food on the 28th September to which we invite all our alumni – but we are also aiming to hold events promoting outreach and access. So please come. It's all happening at Hertford!





History Fellowship Fundraising: Update

Eighteen months ago, Hertford was faced with the prospect of losing the University's share of funding for Toby Barnard's post when he retired as Fellow and Tutor in History. Therefore, the College started raising money to endow a History Fellowship in perpetuity to ensure the future of this vital subject. The post was named in honour of Drs Geoffrey Ellis and Toby Barnard in recognition of their combined service of over seven decades; between them, they have taught around a twelfth of our living alumni.

At the same time the University acted to deal with the crisis in academic funding by putting aside £60m of its revenue from Oxford University Press to allow for matched funding of 75 existing core teaching posts across the collegiate university. Fifty of these posts are in Humanities and each college was invited to join this scheme whereby if £1.2m was raised from alumni and friends then the University would provide matched funding of £800,000 to fully endow the post and guarantee that it would be filled whenever it became vacant.

Since 2011 we have been fortunate to receive just over £600,000 in donations towards this project. As we have been making good progress with the fundraising, it was agreed between the College and History Faculty that we could refill the post after Toby Barnard's

retirement and in 2012 we were delighted to welcome Dr Giora Sternberg (p.9) as the new Fellow in History. However, although the new post-holder would be in receipt of a joint appointment, all the costs would be borne by the College for the first five years or until we secure £1.2m and the matched funding is awarded.

The deadline for the teaching fund has been extended by a year to the 30th September 2014 in recognition of the difficulty that many supporters have in committing to the project at the moment. Of the 75 teaching fund posts across the University, only 22 have already been fully endowed. If we are to receive the benefit of the matched funding and guarantee, we must meet the deadline and we are making every effort to secure these funds.

A number of Hertfordians are working hard to help us find external support for the project. We would especially like to thank Carol Sennett (History, 1982) for her tireless efforts and, of course, to everybody who has given to this project so far; your support has made a real difference and we are most grateful.

If you would like to know more about the History Fellowship Fund or think you might be able to lead us to other supporters then please contact us in the Members' and Development Office.



From the Members' and Development Office

Time is relative. In Physics, change can be measured in light years whereas at Hertford, it is typically measured in terms. In this edition of *Hertford College News* we hope to exhibit the changes since Michalemas term, whilst showcasing our outreach initiatives and Physics at Hertford: incidentally two trademark interests of the late Neil Tanner, Physics Fellow, who pioneered access at Hertford in the 1960s.

To welcome in Michaelmas term, our event-marathon month of September started with the Principal lecturing in Heidelberg University about the Euro crisis, followed by a spectacular feast in the atmospheric Zum Seppl restaurant. The following week, Soweto Kinch entertained almost 200 guests in OB Quad with his mastery of the saxophone and his impromptu Hertford rap. The latter can be found on the Hertford website and is unquestionably worth a listen. We then held a Gaudy for those who matriculated between 1971 and 1973, and although Gaudy speeches do not often mean much to those outside the particular year groupings, the accounts of the Hertford Centenary Ball in 1974 have certainly impressed us. We only hope that people will be talking about our events with such fondness in four decades time. The marathon spectacularly concluded with the Economics Summit; we are very grateful to our speakers Ian Weston (EEM, 1983), Jacqui Smith (PPE, 1981), Steve Russell (PPE, 1983) and Jeremy Heywood (History & Economics, 1980) for enlightening and candid accounts of their careers and experience to date.

With thanks to Glyn Taylor (English, 1979) we held an extremely popular London Drinks reception at Nabarro LLP in November. Then, to start this year off with a bang, 82

matriculands from 2002 and 2003 braved the cold and January blues to come to their first Gaudy.

Looking forward, this year marks the 100th birthday of the Hertford bridge. There will be a series of events on the weekend of the 27th September marking this occasion to which all are invited. Plans are still developing, but we hope that this will allow several hundred alumni, friends and family to come and take part. It will be the start of a year where the College's vision for the future will be launched, and this will culminate later in 2014 with an event to mark the 40th anniversary of admission of women into the College.

In the more immediate future we will be holding our second Economics Summit in New York on the 5th April thanks to the generosity of Rob Lusardi (Engineering & Economics, 1975) and Sabina Wu. We are also in the early stages of planning the next Hertford London Lecture to follow Dr Christopher Tyerman's *tour de force*, held at Willis Ltd last June. Both of these events are aimed specifically at raising money to endow the Economics and History Fellowships, and underpin the tutorial system.

Were you contacted in the Telethon 2012? If so, you were part of one of our most successful campaigns and we thank you for your support. We raised £96,185 and 90% of this has already been fulfilled. Our six student callers said that over the two weeks in September, they enjoyed speaking to over 250 of our alumni about their memorable moments at Hertford whilst gaining valuable experience, confidence and career advice.

Despite this success, fundraising has been steady but not spectacular. Although last year more than 12% of Hertfordians made a

gift to the College, the amount secured has fallen below the previous year's total. While we understand the economic pressures which are besetting the majority of people, we hope that you will feel able to continue to support the College and its present and future students. Many of you were lucky enough to receive an undergraduate education that was entirely free; most of our students are now facing prospective debt of at least £50,000 and there is some evidence that the fear of debt is deterring applicants.

To counter this, the College has employed its first Career Development Fellow to spearhead its outreach programme. At the same time we are striving to maintain our Bursaries Programme, which has been entirely funded through the generosity of our Old Members. At the London Drinks in November last year, the Principal announced that he wished to fund a bursary himself, and then auctioned another nine. We need to secure £120,000 each year to maintain these bursaries.

Finally, within the Development Office, Peter Harris has completed his fixed term contract and has moved onto a career in publishing at Taylor & Francis. We welcome Helena Jones as Database Officer who has joined us from the Faculty of Music. At the end of this term, after four and half years as Director of Development, Paul Dryden will be leaving Hertford. Having built up development and alumni relations and helped to lay foundations for future success at Hertford, he is now pursuing other opportunities. He will be sorely missed and we all wish Paul every success in his future endeavours.

We very much hope that you enjoy this issue of *Hertford College News* and that you are able to join us at one of our future events.

Hertford in Heidelberg



Rosalind Atkins (Physiological Sc., 1975): Why Heidelberg? If you'd come, you'd have understood. Never more beautiful than on a hot September day, this university city with its river and its castle on a hill shares much in common with Oxford, not least as a lively cosmopolitan place in an historic setting.

Forty Hertfordians and partners, from the retired to the recently graduated, came from various parts of Germany & neighbouring countries. We began with a brief tour of the oldest part of the University, and of the Church of the Holy Ghost, witness to and survivor of much mayhem. But for many, the highlight was the student jail where, until alarmingly recently, students could be locked up for misdemeanours close to typical student behaviour, such as failing to work due to drinking too much. But never fear, the graffiti-filled tower walls provide evidence that the

Heidelberg Proctors could be thwarted, and all manner of goods (and people) managed to be winched up for the amusement of the involuntary residents!

We proceeded from the arcane to the erudite, as Will Hutton enlightened us on some aspects of the continuing economic crisis in an impassioned talk. As befitting the occasion, this gave rise to animated discussion in which differing opinions, as to cause and solution, were defended with increasing vigour. And so we adjourned to the bar.

Zum Sepl provided the perfect ending to the programme. A traditional Bierkeller with hearty fare, we chased the locals out of the subterranean part and felt right at home. Good company and of course good German beer - and with food. What more could the gregarious argumentative Hertford soul desire?

Jazz & Pimm's with Soweto Kinch



Aidan Liddle (Literae Humaniores, 1997): I have always been proud of Hertford's illustrious alumni, in whose reflected glow I occasionally bask when one of their names comes up in conversation. But when my younger brother, whose finger has always been closer to the musical pulse than mine, was talking about an album he'd just bought from this up-and-coming British saxophonist called Soweto Kinch, I particularly enjoyed seeing his jaw hit the floor when I airily told him I'd been at Hertford with him.

It was great to return to Hertford, then, on a beautiful Saturday afternoon in September to hear Soweto play a concert in OB Quad and enjoy the last Pimm's of the summer. Warming up the appreciative crowd for him was the current generation of Hertford jazz musicians, under the banner *Lucy and the*

Simpkin Sextet, who showed that Hertford music, in all its forms, was still in fine fettle.

Soweto came out to a rapturous reception, looking relaxed and obviously enjoying the occasion. The crowd enjoyed his smooth playing, his trademark blending of jazz and hip-hop influences. His *tour de force* was him taking words thrown out from the audience for each of the letters in 'Hertford' and weaving them into an extended improvised rap. For the last few songs, *the Simpkin Sextet* reappeared to help Soweto in some lovely jazz classics.

And so we went in for dinner and then, as is traditional, down the bar. It was great, as always, to catch up with some familiar old faces, and to chat to Soweto about his next ideas. And he was even kind enough to sign my brother's copy of that album.

Gaudy (1971-1973, 2002-2003)



Peter Friend (Physics, 1971): I attended the Gaudy on 21 September 2012 and it was a truly magical evening. Absolutely everything was just delightful. Five of the six Physics students of my year (1971) came along: Neil Mackenzie, Paul Kyberd, Matt Durcan, Tim Moorhouse and me. The Evensong service in Chapel was really moving - and it was topped off by Peter Dart's stupendous performance of *Buxtehude* on the organ. Over dinner I had a great time, catching up on news and sharing tales of the old times together in College. I think the cook must have changed since 1971 - we never had food this good back then. Next morning was crisp and sunny - Charles Nixon took Neil Mackenzie and me on a fabulous guided tour of the local lanes to see New College, Merton, Magdalen and Teddy Hall. Charles' knowledge of Oxford is tremendous. All-in-all, it was a great weekend.

Kelly Lin (Economics & Management, 2003): 'I can't believe it's been ten years' was the phrase on everyone's lips at the Gaudy, held on a cold day in early January. Like Hertford, we were (on the whole) a little bit smarter looking, scrubbed cleaner, but fundamentally still the same underneath. It was surprising how familiar it felt to be donning black tie in a room with a tiny mirror, milling about the quad, climbing the stairs to Hall; a testament to the impact Hertford had on our lives. We reminisced about the good old days before tuition fee top-ups, Jack Wills and back when Facebook was still cool, during a meal that was a significant improvement on what I remember (clearly there's a better Food & Housing Officer in charge these days). The Gaudy served as a reminder of all the great times had at Hertford and provided the perfect opportunity to catch-up with old friends. The only things missing? Pangos and Hassan's.

Economics Summit



Enese Lieb-Doczy (PPE, 1991):

The first Economics Summit took place on the 28th and 29th September 2012. About 70 Hertfordians turned up. It was testimony to the interest in the event (and final proof to my geeky contention that few things are more interesting than economics) that quite a few of the guests had not actually studied economics. We all had a stimulating time finding out about the latest developments in economic research and catching up with each other.

Jacqui Smith gave a spirited and witty speech on how she benefitted from her economics training as a government minister, while Jeremy Heywood's conversation with the Principal, Will Hutton, left no doubt that Politics and Economics continue to go hand-in-hand. The Roger

Van Noorden Memorial Workshop the next morning saw us turn into test subjects in the interest of furthering behavioural economics. We found out that our character had already been ruined thoroughly by previous game theory lectures and that if everyone tries to outwit the group, the overall test results look very strange. I doubt that we made it into any research paper, but we had great fun along the way.

Overall, the event was an excellent community-building exercise, which demonstrated the formative impact the intellectual curiosity and slight irreverence instilled in us by our tutors has had on each one of us. I hope that this Economics Summit will be the first of many such events and that we economists are as generous with Hertford as Hertford has been with us.

London Drinks



Charles Gibson (Literae Humaniores, 1959):

Hertford put on another in the series of sociable drinks receptions in London generously hosted again by Glyn Taylor (English, 1979) of Nabarro LLP. The event was for a most worthy cause, the Undergraduate Bursaries Programme.

This occasion attracted a substantial crowd and the Principal led a substantial cohort from the College. So the room, for all its spaciousness, was crowded indeed and in spite of half a century's experience of locating the wine I took an uncomfortably long time on this occasion. The presence of a podium in the room presaged a characteristically lively address from the Principal. Were he to need an alternative employment, Will Hutton would flourish as an auctioneer, for within a few minutes he had raised promises of funding for some ten bursaries.

Andrew Breeze (English, 2000):

Ever wish you could go back to College? Well, you can't. Even if you finally commit to doing that DPhil to prove that Elizabeth I and Shakespeare were the same person, it just won't be the same: the Simpkin patrolling OB won't be your Simpkin. And, your mates won't be DTB.

But don't despair. Once a year, if you can make it to London, College will come to you. I joined the happy crowds in the Nabarro LLP bop cellar for the annual London drinks. My old tutors remembered me, apparently fondly. (If they didn't, they did a good job of pretending). I saw students, faculty and staff I remembered, and I met lots of people from other years and decades who, like me, had been lucky enough to call Hertford home for a while. And when last orders had rung at Nabarro, we went across the road to the pub for another, and College came with us.

Alumni Concert



Paul Sharrock (Engineering Science, 1980):

We started arriving from eleven-thirty and congregated in the Old Hall for sandwiches (a great improvement on the Chapel porch used in previous years in the cold-depths of January). At one o'clock rehearsals started: orchestra and choir separately. Rehearsal time had been divided up to allocate time to the different pieces – with Nick Graham, Andy Warnock and Ed Whitehead efficiently taking the baton (or playing various instruments) at the appropriate times and places. Following a break for tea in Hall for both singers and players rehearsals continued, including Mozart's *Ave Verum Corpus* involving both the choir and orchestra. With rehearsals completed there was just enough time to get changed in to our best.

Considering we were essentially a scratch choir and orchestra with very little rehearsal

time, the concert went extremely well. Best of all, the Chapel was at capacity with a full audience. The choir, orchestra and much of the audience went straight from the Chapel to drinks in the Principal's Lodgings – pretty crowded and loud with chatting, but a good stage for a drinks party, nonetheless. Come eight o'clock it was time for dinner in Hall. The seating plan mixed players, singers and audience whether they were students, tutors or alumni (and their guests): it worked very well. This was probably because, irrespective of whether we knew anyone previously, we all knew we were there because of our desire to take part in music at Hertford again (including as audience). I certainly think through the long list of musicians I possibly might meet again – but I know that even if none of my contemporaries come I will have a great day playing music with and meeting current members of the College and other alumni.

Hertford at a glance



Robert Hooke's *Micrographia: or, some physiological descriptions of minute bodies* from 1665

Hertford's antiquarian book collection



Kirsty Taylor became Librarian at Hertford in April 2012, but was no stranger to Oxford having started off her career as a Bodleian trainee before moving to the Saïd Business School and then

Nuffield College. Immediately prior to Hertford, Kirsty was the Deputy Librarian at the Business School in Cambridge but fully admits that Oxford is a far better place to be.

Kirsty is responsible for the modern library housed in the former Chapel and spends a large amount of time ensuring that the students have access to their course texts. She is also responsible for the care and conservation of the College's historic texts.

Hertford members, both past and present, may be unaware of the rich heritage contained within the College's antiquarian book collection. The collection was built upon those of Hart Hall and Magdalen Hall and contains works by notable alumni such as William Tyndale, John Donne and Thomas Hobbes. The books occasionally generate interest from researchers but, for the most part, remain unnoticed and unused. Kirsty is keen to change this and is planning regular exhibitions to showcase some of the treasures otherwise hidden away on the shelves. She would be happy to hear from any member with an interest in the collection.

Contact library@hertford.ox.ac.uk if you would like to arrange a visit to see some of these historic titles for yourself.

Hertford to support Bridging Programme

Hertford is delighted to announce that it will co-host, with Pembroke, this year's Bridging Programme for students with places to read Mathematical, Physical and Life Sciences starting in October. The transition from school to higher education can present a number of challenges, both academic and social, especially for students who have previously experienced educational or social disadvantage. The aim of this programme is to give further assistance to students who may experience the greatest transitional difficulties. In addition to academic content, there will be a strong focus on pastoral and broader academic matters, e.g. critical thinking and independent learning skills. Sessions will include problem solving, time management, an Oxford tutorial, information skills, a debate, group discussions and opportunities for socialising with fellow students.

Gift to Student Ambassadors



The Hertford Society, a group run by alumni for alumni, has made a gift of £2,000 to the Hertford JCR. The gift will be used primarily to support a Student Roadshow for potential applicants from Hertford's linked schools in Essex and north Kent. The roadshow is a student-led initiative and will be a collaboration between the Hertford Ambassadors and the OUSU Target Schools Campaign. Dr Jamie Castell (the Outreach Fellow) was 'delighted at the news of this generous gift' and thanked both the Hertford Society and all the Hertford undergraduates prepared to devote time and effort to outreach and improving access to Oxford.

Physics alumnus: prestigious award winner

Roderich Moessner (Physics, 1991) is one of the recipients of the 2012 Europhysics Condensed Matter Prize and the 2013 Leibniz Prizes.

The European Physical Society Condensed Matter Division Europhysic Prize is one of Europe's most prestigious prizes. It is awarded every two years for work in the area of physics of condensed matter, specifically work leading to advances in the fields of electronic, electrical and materials engineering. The prize was awarded to Roderich Moessner, along with Steven Bramwell (LCN), Castelnovo (RHUL), Santiago Grigera (St Andrews), Shivaji Sondhi (Princeton University) and Alan Tennant (Helmholtz-Zentrum Berlin), for their prediction and experimental observation of magnetic monopoles in spin ice.

The Leibniz Prize is an annual research prize awarded by the Deutsche Forschungsgemeinschaft to scientists working in Germany. Roderich was awarded the prize, with Achim Rosch, for outstanding contributions to research into interactive quantum systems. He is considered to be one of the world's leading researchers on frustrated quantum spin systems.

Roderich laid the groundwork for his research during his studies at Oxford, followed by postdoc work in Princeton and at CNRS in Paris. After a period as a lecturer at Oxford, in 2007 Moessner became director at the Max Planck Institute of Physics of Complex Systems in Dresden.

Ave atque vale: a warm welcome to...



Dr Jamie Lorimer
Fellow & Tutor in
Geography

Jamie started at Hertford in 2012 as a Geography Tutorial Fellow and holds a University Lectureship. Jamie completed his PhD at the University of Bristol in 2005 and has previously held posts at Oxford and King's College London. He is a cultural geographer with research interests in the politics of nature. His work explores the implications of the Anthropocene for Western environmentalism.



Dr Giora Sternberg
Fellow & Tutor in
History

Giora began his studies at the Adi Lautman Interdisciplinary Program for Outstanding Students at Tel Aviv University, where he completed a BSc in Computer Science and Humanities, and an MA in History. He then came to Oxford for a DPhil in History. Following three years at the Harvard Society of Fellows, he returned to Oxford in 2012 to take up his position at Hertford and at the Faculty of History.



Mr James Lazarus
Fellow & Bursar

James comes to Hertford after a career in banking. James' responsibilities are to manage the internal workings of the College and ensure that everything works well to support the academic ambitions of the Principal and Fellows. He has enjoyed his first term and finds the contrast with the City to be very striking. He is impressed by the energy and commitment of all staff and looks forward to being an active supporter of College activities.



Dr Matthew Hiscock
Academic Registrar

As a student in Oxford, Matthew used to come to Hertford to play in the orchestra and the College was as open and friendly then as it is now. He will support the new Outreach Fellow, in his work with schools, and the Senior Tutor with the task of organising the College's teaching and Admissions. Matthew worked for a decade as a freelance Opera/Theatre Director before studying for a PhD at Cambridge. He then taught both in Cambridge and at UCL before coming to Hertford.



Dr Jamie Castell
Career Development
Fellow & Outreach
Officer

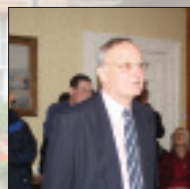
Jamie will divide his time equally between research in English Literature and co-ordinating the College's outreach work to encourage applications from the very best students at a broad range of schools. As an Essex boy, he is looking forward to building relationships with Hertford's link schools there and to exploring Kent and Camden. He studied at both Homerton College and St John's College, Cambridge, where he recently finished his PhD thesis on the poetry of William Wordsworth and animal life.

and a fond farewell to...



Mr Simon Lloyd
Fellow & Bursar

After 13 terms as Bursar, Simon Lloyd (Geography, 1977) has handed over the bursarial reins and moved on to the Royal Society of Forestry where he has become their Development Director. Simon brought an incredible energy to the College and quickly restored its parlous finances from deficit to surplus. He was a very effective and visible figure head in the College and his work in building the team spirit of the staff was particularly appreciated. Simon was an executive at BP before coming to Hertford and brought with him the professionalism of a world-class organisation.



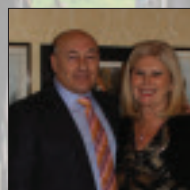
Mr Philip Dickson
Deputy Bursar

Philip Dickson, Deputy Bursar and College Accountant since 1999, retired at the end of 2012. Generations of undergraduates will remember with fondness the calm, sensible and kind way with which Philip dealt with their financial issues. We all wish Philip well for a retirement filled with golf, coastal walks, and family - and will miss his courtesy, professionalism, experience, and the nicest wool jumpers in college.



Mr Paul Dryden
Director of
Development

Paul Dryden has been at Hertford since 2008 and is the College's longest-serving Director of Development. He has championed fundraising within the College and has achieved success in re-engaging with Old Members, building a great programme of events both in Oxford and around the world. Working closely with his colleagues, he has helped to establish a number of important fundraising projects whilst building-up development and alumni relations and helping to lay foundations for future success. A few of many things we, in the Development Office, will miss are Paul's encyclopedic general knowledge and good humour.



Mr Dave Timermanis
Housekeeper at
Abingdon House &
annexes and **Mrs
Anne Timermanis**
Domestic Manager

After a combined total of 34 years at Hertford, Anne and Dave Timermanis have certainly earned their retirement - and the admiration of colleagues and friends in college. At a toast to the couple, Home Bursar Andrew Beaumont spoke of our respect and affection for them and their work, before breaking into a passable impression of Anne's favourite, Elvis. The end of an era? Yes and no: we say goodbye to Anne and Dave, but their daughter Stacey now works for the college, so the Timermanis name lives on.



Photos: Philip Nash ©

Target Schools: Outreach



Dr Jamie Castell
Career Development Fellow &
Outreach Officer

The present moment might be considered a particularly intimidating time to be applying for university. The increase in tuition fees to £9,000 per year and the employment prospects faced by graduates after their degrees has led to a diminishing number of applications even for the best institutions. There are also concerns that some of the recent progress towards widening opportunities for socially disadvantaged groups may be reversed over the coming years.

However, the accessibility of higher education to students from all backgrounds remains essential to safeguarding the economic prosperity of the nation. Evidence suggests that students are still more employable and can expect to earn considerably more across their lifetimes than their non-graduate peers. They can also be expected to contribute more to the productive capacity of society in business, science and culture. Such instrumental benefits are, of course, in addition to the less easily measurable advantages that institutions like the University of Oxford can offer to a wide range of the most academically talented students.

It is therefore important to continue to encourage students from all backgrounds to apply to the very best universities. The establishment of an innovative new access and outreach role at Hertford is a strong commitment from the College towards sustaining its excellent reputation for friendliness, fairness, social mobility and academic excellence.

As well as being engaged in academic research in English Literature, I will be building and developing relationships with state schools, particularly in the College's link areas in Essex, north Kent and the Borough of Camden. I will be inviting schools to visit Hertford to give prospective applicants a taste of College life. This will involve dining with students in Hall, taking them on tours, organising Q&A sessions with current undergraduates, and offering taster tutorials for applicants to experience what the world-class teaching at Oxford has to offer. I will also be on the road at higher education fairs and in schools across the country in order to demystify the institution and its admissions processes.

My aim will be to demonstrate that higher education, the University of Oxford, and Hertford College continue to be places where the very best students can apply, gain a place,

and flourish regardless of their background. I will be working closely with the College's Academic Registrar Dr Matthew Hiscock, the JCR Access and Outreach Officer Anna McIntyre, and the Hertford Student Ambassadors. They will all be ensuring that the College also offers appropriate support to university schemes aiming to raise aspiration in younger students and to student-led initiatives (including a roadshow in collaboration with OUSU's Target Schools and generously funded by the Hertford Society). The focus on the College's link areas will not mean that other schools with connections to Hertford are neglected. Instead, the access team aims both to maintain and build upon excellent relationships that academic staff, current students and alumni have with schools across the country. It will do so to ensure the best possible pool of applicants for the College and the best possible opportunities for students who are hardworking and intellectually adventurous enough to benefit from them.

Look out for a new access section on the College website and for reports on progress in future editions of this magazine. If you are a teacher and would like me to visit your school, I would be delighted to hear from you - email: james.castell@hertford.ox.ac.uk.



Ambassador's Tale

Anna McIntyre
Jurisprudence, 2011

I am a 2nd year Law student at Hertford, and have been involved in access and outreach work since I arrived in Oxford. I am now Hertford's Access Officer, and believe that we as a student body make a huge difference by presenting a relatable, enthusiastic, *normal* face to those who are ever more intimidated to apply to Oxford - especially at a time where the job market is so uncertain and university fees seem frighteningly high.

Hertford operates a casual ambassador scheme, where those interested in representing the College volunteer at the beginning of the academic year and join a group of around 40 students. They promote equal opportunities to those who have the ability to apply to Oxford, or other prestigious universities.

It has been amazing to be involved with work that really changes people's lives. I only applied to Oxford when my misconceptions about studying here, which are so often portrayed in the media, were dispelled when I was in sixth form. We have worked with groups from the ages of 14 upwards, taking them on tours of Hertford and showing them the reality of studying here.

I find different age groups tend to be affected in different ways. Those in younger year groups, such as year 9 and 10, are shown that university life is something to aim towards, and we try to inspire them to work harder in their upcoming GCSE's. Year 11 and 12 pupils, on the other hand, have benefitted from the ambassadors' first-hand knowledge of what it is like to go (successfully!) through the Oxford admissions process and study here unscathed, dispelling any worries about scary aptitude tests and the interview procedure.

Visiting my old school was extremely effective; seeing someone from their region seemed to make the idea of applying more conceivable.

I am also chair of the Target Schools Campaign; I am now combining my roles to help Hertford reach out more effectively with its target area (Essex and Camden) by providing the College with volunteers from across the University to visit in the summer term and cover as many schools as possible.

Paul Nock (Assistant Head Teacher at Greenford High School) discusses a recent school visit by talented linguists to Hertford College.

Twenty three students, accompanied by Mrs Middleton (teacher of Japanese), two Greenford High School Foreign Languages Assistants and I had the opportunity to visit Hertford College in February 2013, in order to hear and see what university life entails. Lawson Lancaster (Japanese, 2010), a former student of GHS helped to co-ordinate the visit.

The students were drawn from the Japanese class and dual-linguist classes – Spanish and German. Amongst these students are some potential Oxford University applicants (Greenford High School had one Oxford entrant for this academic year, three last year and four in 2010). The day gave students a behind-the-scenes look at the University; for many this would be the first time that they stepped inside a university. It was meant to inspire them to continue to work hard across all their subjects to gain a place at university, not just Oxford and not even just to pursue a language-related course, although that would, of course, be a bonus.

Students heard Lawson speak about what Hertford and Oxford has to offer, plus university life in general - 'opportunities not to be missed'. He spoke about his course, the

facilities, social life and friends, the application process and finances. The students appreciated being enlightened by someone that went to their own school, from a similar background to most of them, who returns home to an address just a few streets away from their school, someone that has pursued his language studies to this high level and who has been taught by the same teachers.

Professor Bjarke Frellesvig, Fellow & Tutor in Japanese, gave a short talk focusing on study and what they are looking for when students apply and during the interview process. Following lunch, Japanese studying students headed off to the Oriental Institute whilst the German and Spanish students were given a tour of the library and rooms of the Taylor Institute.

GHS is a large, high performing, multi-ethnic, inner-London school with a truly comprehensive intake; it takes its role in ensuring the best for all students and allowing students to achieve their potential very seriously and the day was a great opportunity. We are looking forward to working with the University to arrange similar events in the future.

Interstellar Observations: as clear as dust

Professor Pat Roche, Fellow and Tutor in Physics

In common with most areas of science, research in astrophysics is pushing the boundaries of knowledge at faster and faster rates. This is largely driven by new capabilities in telescopes and instrumentation, supported by increasingly sophisticated modelling and new understanding in physical processes and theories. Technological advances have revolutionised the way astronomy is conducted. Large-format detectors mounted on state-of-the-art telescopes survey large swathes of the night sky, allowing rare and unusual objects to be identified, and then followed up with large aperture telescopes to provide more detailed information. Space telescopes complement measurements from traditional ground-based observatories, increasing coverage to most of the electromagnetic spectrum and providing increasingly complete pictures of astronomical phenomena.

Through its membership of the European Southern Observatory (ESO) and the European Space Agency (ESA), astronomers in the UK have access to many of the most powerful observatories in the world.

Throughout my career, I have been involved in the design, construction and deployment of new infrared instruments and in the last few years I have been very fortunate in participating in the development of new telescopes. Their deployment on the best observing sites in the world has powered the technological revolution in astronomy. The availability of large format, highly-sensitive detectors operating at visible and infrared wavelengths has led to huge increases in data rates with commensurate growth in the productivity of astronomical observatories and spectacular advances from exquisite images and detailed spectra.

I currently sit on the ESO Governing Council, chair the UK Infrared Telescope (UKIRT) Board, and I am Vice-Chair of the Atacama Large Millimetre/ submillimetre Array (ALMA), which is approaching completion at 5,000-m altitude in northern Chile. Although these duties reduce the amount of time available for data collection at the telescopes, they mean that I do spend time at the observatories, which are all in very spectacular locations. The ESO telescopes are in the Atacama desert, chosen because of the remoteness of the sites, away from cities and the attendant light pollution, and the stable, dry atmosphere above the mountains of La Silla and Paranal. The dry atmosphere of the Atacama is particularly crucial for ALMA as water vapour absorbs microwave radiation very strongly. Complementing the location, the Residencia at Paranal Observatory is built into the side of the mountain. It is architecturally striking, with an indoor tropical oasis used to humidify the air and make it more comfortable for the astronomers, engineers and other support staff. It was used as a film location in the James Bond movie, *Quantum of Solace*. The next major ESO project will be the very ambitious 39-m diameter European Extremely Large Optical-Infrared Telescope, which funding-willing, will begin construction in 2014. It will have 800 hexagonal mirror segments whose alignment needs to be maintained to extraordinary precision in the face of wind buffeting. It will be built on Cerro Armazones, a 3,000-m peak about 20km from Paranal, and will be operated using the current observatory infrastructure.

UKIRT sits on the summit ridge of Mauna Kea a 4,200-m high volcano rising out of the Pacific ocean on the island of Hawaii. The isolated

mountain tops rise above the clouds and perturb the atmosphere much less than continental mountain ranges, again providing superb observing conditions. Most of the current large telescope projects are focussed on Hawaii and Chile, the best observing sites available.

Judging by their personal statements, applicants to read Physics at Oxford are most often inspired by the ideas underlying quantum mechanics, the search for fundamental particles and the nature of matter and by astronomy and cosmology. These topics encompass the enormous range of scales and conditions over which the laws of physics operate and can be tested. My research is in astrophysics, probing star-formation and the nature and abundance of the most feeble stars and the properties of interstellar matter and cosmic dust, exploiting new techniques and novel instrumentation.

These topics may seem an odd choice compared to the grand sweep of cosmological studies, which probe the history and evolution of the whole Universe. Indeed cosmic dust is often viewed as a nuisance as the tiny particles absorb and scatter starlight, blocking our view of the dense regions where stars are formed or the nuclei of galaxies harbouring massive black holes. However, understanding the formation processes and the boundaries between low-mass stars, brown dwarfs and planets are a very important component of the fast-growing field of exoplanet research. Similarly, most of the heavy elements in interstellar space are locked up in tiny grains of cosmic dust. These nanoparticles in space are the building blocks of asteroids and planets, provide formation sites for certain interstellar molecules and have fascinating chemical and physical properties. For example, some of the smallest dust particles have been identified as aromatic hydrocarbons which are almost certainly key to the formation of much more complex pre-biotic species.

The enormous interest in astronomy is illustrated by the success of the Zooniverse citizen science programme, which now has more than 500,000 contributors and, on a more local scale, by the successful Stargazing Oxford events run in January 2012 and 2013. Over 1,100 people visited the Physics department at each of these events, which showcased some of the research conducted at Oxford and provided opportunities to talk with astronomers as well as observing the night sky.

The research landscape is changing rapidly. Over the last five years, funding cuts have reduced the number of postdoctoral research positions supported by the UK Research Council, STFC, and substantially reduced the UK domestic astronomy programme, leading to increasing reliance on international collaborations. Fortunately, grants from the European Research Council have provided much needed support for many areas, and are increasingly critical for the health of our science programmes.

The students of today can look forward to using the new facilities currently under development, which will detect fainter and further objects and provide more detail on the ever-widening range of astrophysical objects. Many discoveries undoubtedly remain to be found and they will be able to reap the rich and growing returns from astronomy in the era of big data.

Background photo: At the ALMA observatory by Cerro Chajnantor, Chile. By the end of 2013, ALMA will have 66 antennas working interferometrically to produce revolutionary views of solar systems around other stars, galaxies in the throes of formation and pretty well everything inbetween.



An Unusual Astronomer



Professor Ian Morison
Physics, 1962

I had to start wearing quite thick spectacles at the age of 11 but good came out of this as my optician gave me lenses with which I was able to make my first telescope to view the Moon and planets. I still have my father's copy of Fred Hoyle's book *The Nature of the Universe* that perhaps spurred me on to become an astronomer.

I was lucky enough to spend three wonderful years at Hertford and took the first astronomy course that had been given in Oxford since the war and then went on to study radio-astronomy at Jodrell Bank. My PhD was to study the surface of the Moon by radar. Partly as a result, when the Russians soft landed the first spacecraft on the Moon in 1966, I helped process the images we received - so I was one of the very first in the western world to know what the Moon's surface looked like! Much of my career at Jodrell Bank was designing and building the computing and electronic systems to control the telescopes and provide highly accurate timing systems to allow the observations to be made. One computer that I designed, installed in 1978,

is soon to be decommissioned. Perhaps the most exciting day in the 1970's was when I led a small team to track down the location of what we now know is the closest Black Hole to the Earth, some 3,500 light years distant.

I spent much of my time in the late 70's and early 80's designing, building and commissioning the MERLIN array, the largest fully linked array in the World, stretching some 217 km across the UK and now linked by optical fibres. It was most gratifying, when in 2003, an asteroid was named after me citing my work with MERLIN and also in the Project Phoenix SETI search - the most sensitive Search for Extraterrestrial Intelligence (SETI) ever undertaken. Sadly, ET did not phone home and I now believe that intelligent life is rare and we are likely to be the only advanced civilisation within our Milky Way galaxy.

Most lecture courses that I was asked to give at Manchester University related to electronics and computing, but for six years I was allowed to give a new course, *An introduction to Astronomy and Cosmology*, to all our first year students. This was very well received and has been turned by John Wiley & Sons Inc. into a successful textbook of the same name. Perhaps the nicest thing that has happened to me was when, in 2007, I was appointed to

the Gresham Chair of Astronomy. This is the world's oldest astronomy chair, dating from 1597 and once held by Christopher Wren. Over four years in this role, I gave 25 lectures in London covering all aspects of astronomy. I remain a Fellow of Gresham College on whose website these lectures may be found.

So, why unusual? I never lost my love of visual observing, helping to found the Macclesfield Astronomical Society in 1990 and acting as President of the UK's Society for Popular Astronomy some years ago. I remain on its council as instrument adviser helping members with their choice and use of telescopes. I write a monthly night sky guide for the Jodrell Bank website and also record it for their podcast - the Jodcast. I have been writing about telescopes and observing in astronomy magazines for some years and am now putting the finishing touches to an amateurs observing handbook to be published by Cambridge University Press.

In recent years I have been lucky enough to have taken groups of astronomers to see eclipses of the Sun in Turkey and China, to Lapland to view the *Aurora Borealis* and to give astronomy talks on cruises across the world - it's a pretty tough life being an astronomer!



Case Study: Tracking down a Black Hole

8th August 1976. I was the only member of the academic staff not on holiday so a call from Professor Ken Pounds of Leicester University was put through to me. Their satellite, Aerial IV, had discovered the largest X-ray flare ever seen (and even now not exceeded) emanating from the constellation Monoceros, just to the left of Orion. In those days X-ray telescopes could not give accurate positions - the object that caused it could not be found - so they were giving its approximate position to observatories across the world in the hope that its position could be precisely located.

I immediately took over our MkII radio telescope and used it to scan the sky in the region they had indicated but, sadly, nothing was seen. No other observatories were able to detect it in the radio or optical parts of the spectrum either. But I did not give up and a week later we were given back the use of a second similar sized telescope, the MkIII, some 15 km distant from Jodrell Bank. With my research student I had been using the pair of telescopes to study the structure of radio sources and, at the time, it was one of the most sensitive interferometers (a telescope pair) in the world which could also provide very precise positions of the objects that it detected.

We set out to survey the region around the nominal position. In those days we used paper charts which were 20 ft long with 15 traces along it, one above the other, to indicate position in what is called Declination whilst the position along the chart indicated the position in Right Ascension - these being the two co-ordinates that we use to define positions on the celestial sphere.

Hour by hour we surveyed the sky and almost gave up hope but finally, we spotted a small blip on a chart just two inches from the end – well away from the notional position! Then, concentrating on this position, we observed it for the next week as it first grew in brightness and then faded away. We had used the International Astronomy Bureau to give its position to others and the object was extensively studied for some time afterwards. It was good to have a letter in *Nature* describing our results, immediately following that from the Leicester group. What was it? At the position we had found was observed a K2 type star just a little smaller than our Sun. Observing its motion in a circle away and towards us indicated that it was orbiting an unseen object. Their combined mass was calculated to be about 10.5 solar masses so, by subtracting off the maximum mass of a K type star, 0.8 solar masses, gave the mass of the unseen object of 9.7 solar masses. This has to be a black hole as a star of that mass would far outshine its companion. Currently it is the second most massive stellar mass black hole known and also the nearest to Earth, lying at a distance of 3,500 light years. Quite an exciting week!

Beyond Physics at Hertford



Katie Oliver
Physics, 2002

At the end of my DPhil, I knew that a career in research wasn't for me, but I wanted to continue to use my scientific knowledge and the skills I'd built up over my years at Hertford. A friend suggested that a career as a patent attorney might suit me. Two and a bit years later, I'm preparing to sit the first in a series of professional exams, which will (hopefully!) eventually lead to my qualification as a UK and European Patent Attorney.

As a trainee patent attorney, many of the skills that I'd built up as an undergraduate and PhD student have stood me in good stead. The ability to think logically

and to be able to analyse large amounts of information is very important. As well as that, it is imperative to be able to communicate clearly and concisely, both orally and in writing. I think that the tutorial system in Oxford, and particularly the excellent tuition provided at Hertford, taught me those skills. Even more than that, Hertford taught me to think critically and to keep an open mind. Aside from the more academic aspects of life, my time at Hertford taught me to have confidence in my own abilities, whilst being aware of my own limitations and knowing that there's always more to learn.



Salman Ullah
Physics, 1982

Hertford, Stanford, University of Virginia, University of Chicago. That's ten years of Physics, almost all theoretical... I will be forever grateful to Frank my lab partner at Hertford for taking care of all the fiddly bits.

McKinsey, Microsoft, Google. A completely unplanned, 14-year stint in corporate America – most of it spent making investments (including some in the UK) and buying companies (e.g., YouTube). Now, Merus Capital - five years ago I co-founded this venture capital firm in Palo Alto. (Yes, it really is sunny year round).

But how did it all begin? A very cold day 30 years ago in Professor Devenish's room in OB. First interview and I

am fully prepared to answer questions about my family background (limited) and my favourite cricketer (Sir Viv). Mary Gillan is smiling. Robin is not smiling. Robin produces a matchbox and asks me to find its moment of inertia. Me (frozen, empty, lifeless): 'I can't do that'. Robin (still not smiling): 'I think you can'. And that made all the difference.

Mary Gillan, Robin Devenish and Neil Tanner not only taught me a fair amount of physics but more importantly they taught me how to learn: draw bigger pictures (Mary), write faster (Robin), and work more, a lot more (Neil). Thank you.



Kate Ferguson
Physics, 1984

I am now an Associate Professor of Physiology and Chair of the Biochemistry and Molecular Biophysics Graduate Group at the University of Pennsylvania Perelman School of Medicine in Philadelphia, directing the Graduate Program in Biochemistry and Molecular Biophysics and running my own research laboratory. My research focuses on how alterations in cellular receptors can create cancer drivers. We seek fundamental understanding of the molecular mechanisms underlying the specific changes that occur in these proteins, information that is a key in development of personalised cancer therapies.

Is my current focus on cancer research a far cry from physics? No, not really – although, it is a career path

I would never have imagined. Those with physics degrees are well represented in the PhD programme I direct, and it is not an uncommon background for my faculty colleagues in the Physiology Department here at Penn. However, when I left Hertford I knew I wanted to incorporate scientific research in my life, but had no idea how. In truth, too much time on the river (no regrets) plus insufficient aptitude for physics limited my immediate options in the UK. Underlying my subsequent choices is a drive that I must credit to my time at Hertford. I was not a good student and I know I never impressed my tutors. But they impressed me. They impressed me enough that, although I never dreamed I would end in academia, I could not imagine wanting to do anything else.



Russell Stopford
Physics, 1990

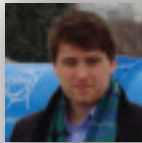
As Head of Digital at Manchester City Football Club, my remit is to grow the club's media and digital content and channels by driving product development online and on social and digital media channels, plus increasing local and global audiences. MCFC is now a leader in digital and media innovation in global sport, winning the Sports Industry Award for Best Website in 2012.

After graduating in 1993, followed by a brief spell studying Artificial Intelligence at Edinburgh, I began working as a TV editor and multimedia designer (while flirting with the idea of becoming a film director). At that time, before the dot com boom, studying Physics gave me the problem-solving skills to invent and create new ideas

for digital media. Thanks to the arrival of the web as a mass-media channel in the late 90s, I was able to start my first company at 26 and ever since have been able to find roles which match my desire to innovate: Executive Chairman of GlowLabs, Chief Creative and Technology Officer of Met Film and Creative Director of Magic Lantern.

The benefits given by a Hertford education have helped enormously; building confidence while raising investment, developing networks of contacts, having the self-belief not to give up and providing a rigour in analytical problem solving. My degree in Physics set me up for what I have achieved and I'm eternally grateful for that.

nextgeneration



Ewen Maclean
Physics, 2006

Back in 2006 when I first arrived at Hertford, if you had told me I would now be sitting in the control room of the Large Hadron Collider (LHC) writing an article about my DPhil research I'm not sure I would have believed you, and was it not for the incredible level of teaching and support I have received from both the College and department over the years I doubt I would be. I consider myself incredibly fortunate to have had the opportunity to study Physics at Hertford both as an undergrad, and now for my DPhil.

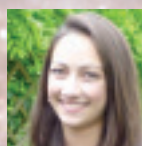
My doctoral research is in particle accelerator physics, a field I first developed an interest in during my penultimate undergraduate year when I had the opportunity to participate in a summer research project supervised by one of my college tutors. I chose to continue these studies for my MPhys project, and ultimately was accepted to a DPhil position with the accelerator physics department.

Today I'm based at CERN (the European Organization for Nuclear Research) in Geneva, where I mainly study the non-linear dynamics of the LHC. Established in 1954, CERN has consistently been at the forefront of scientific endeavour, with a host of remarkable discoveries to its credit (not the least of these is the recent discovery of a particle consistent with the famous *Higgs boson*, however it's also given us the world wide web). The LHC and its associated experiments make up probably the most complicated (and in my opinion coolest) machine ever built: indeed the cryogenics which cool the superconducting magnets in the LHC using superfluid helium to reach temperatures colder than outer space. On the other hand, the collisions that the accelerator generates can be 100,000 times hotter than the centre of the sun.

To achieve the best possible performance from the LHC, it is vital that we understand the complicated dynamics of the machine, and this is the focus of my DPhil. Using a variety of techniques we aim to piece together our understanding of the forces at work inside the LHC, allowing us to identify and understand discrepancies between observations and our models, and ultimately develop methods and corrections to improve its operation.

A good example is an experiment we performed recently, where a very low intensity LHC particle beam was kicked away from its equilibrium orbit to various amplitudes (it's important to do this with low intensity because a nominal LHC beam has enough energy to melt around 500kg of copper). By studying oscillations of the beam resulting from these kicks it is possible to learn a great deal about the LHC dynamics. For example how the frequency of oscillation changes with the amplitude of the kick tells us about certain non-linear restoring forces to which the beam is subjected. Data such as this can be compared to simulation to assess how well we understand the sources of these effects.

Working on the LHC has been an incredible experience, and it is a fascinating topic to research. Perhaps the only downside is that being based out in Geneva has made it slightly harder to attend the termly Hertford physics society (Tanner) dinners!



Rohini Giles
Physics, 2009

In the summer after my 3rd year, I was given the opportunity to work as a summer intern in the Astrophysics department at Oxford. As I've always been interested in academic research, it seemed like the perfect way to experience life as a researcher before embarking on PhD applications in 4th year. My project was supervised by Dr Jo Barstow and Dr Suzanne Aigrain, and involved studying the atmospheres of exoplanets – planets outside our Solar System.

Since the first detection in 1992 more than 850 exoplanets have been discovered, and astrophysicists now estimate that there may be hundreds of billions of planets in the Milky Way alone. Those that have already been detected range from massive gas giants like Jupiter, down to smaller planets like Earth. Excitingly, some of these Earth-like planets (known as super-Earths due to their size) are located in the temperate zones around their stars, where water remains in liquid form, making them potentially habitable. Now that we know for certain that other planets exist, the planetary science community is turning its attention to next big question: what are

these alien worlds made of? This is where EChO - the Exoplanet Characterisation Observatory - comes in. This space telescope, that will hopefully launch in around a decade, will be the first dedicated mission to study the atmospheres of extrasolar planets. It will use spectroscopy (measuring light intensity as a function of wavelength) to look for identifiers of particular molecules, in order to work out the composition of the exoplanet's atmosphere. This would tell us whether a particular planet's atmosphere is dominated by nitrogen (like Earth), carbon dioxide (like Venus and Mars) or hydrogen and helium (like Jupiter). This is useful for several reasons. Firstly, the gas composition of a planet's atmosphere can identify its formation – by accretion of solid matter or by gravitational collapse of gas. Secondly, spectroscopy can be used to look for biosignatures; levels of certain gases potentially associated with the presence of living organisms. Should we find a super-Earth with atmospheric biosignatures located in a star's temperate zone, it would be a huge step towards discovering life on another planet.

Before this can happen, EChO must be prepared to obtain as much information as possible. My project involved using simulated absorption and emission spectra, and information about EChO's proposed measuring instruments (their spectral resolution and the estimated noise) to determine what information could potentially be extracted. Firstly, I would generate a test planet with a given mass, size, temperature profile and atmospheric composition. NEMESIS, a programme developed in the Atmospheric Physics department at Oxford, then produces its synthetic spectrum. I would then add noise according to EChO estimates, and use NEMESIS in reverse to attempt to retrieve the test planet's original information. By comparing the input information with the output, we were able to see how well we would be able to constrain the atmospheres of different types of planets. Unsurprisingly, the process works better for larger planets, so although EChO should be able to characterise larger planets, it may struggle to classify super-Earths in detail.

Exoplanet research is a booming field with plenty of future missions, each one will bring us closer to answering some of the biggest questions in science: why are we here, and are we alone?

pinkacappella



Miranda Essex
Geography, 2010

My 3rd year at Hertford has been just as busy as the first two: despite an increase in workload due to fast-approaching Finals, I have still been lucky enough to be able to fit in many other activities!

A considerable proportion of my time is spent playing lacrosse and working towards the annual Varsity Match that takes place in 7th week. A weekend in Cambridge is an exciting prospect, and we are all looking forward to what will hopefully be a dark blue victory and enjoyable occasion after the match.

I am also currently Marketing Director of the Oxford Women in Business Society, which involves promoting the society to the widest possible audience. A highlight of the term so far has probably been a talk from Amanda Davies, the HR Director at Mars, whose visit was accompanied with large boxes of free

chocolate; as well as interesting speakers, free gifts always help to boost attendance! Alongside this, I have been keeping up my interest in singing, rehearsing with Hertford Chapel Choir for a performance of Rachmaninov's *Vespers*. Having sung a cappella all last year, doing a serious choral work makes a nice change.

Looking back at my time at Oxford thus far, I would say that one of the most rewarding and interesting roles I've had was as President of *In the Pink* acappella group, which I held throughout my second year. I organised a tour to Berlin, a first for the group. Enthusiastic audience reactions, which (to our great surprise!) led to repeat standing ovations, mean that the group is sure to go back this year - a tradition which I hope will remain in place. A successful run to Edinburgh Fringe in August 2012 consolidated a great year of singing and cemented many friendships with the girls who I spent so much time with during rehearsals and social occasions.

Shifting my gaze onto my studies, my Geography degree has been particularly interesting this term due to my African Societies module. This focuses on the economic processes underpinning under-development and exploring the legacy of colonialism and Western interventionist development policies: a crucial matter for our times and highly topical.

As a college, Hertford provides a warm, welcoming atmosphere, and the opportunity to spend time with a variety of great people, whether informally in the bar or JCR, through essay-writing companionship in the library, or through multiple college activities (in my case particularly Mixed Lacrosse, Orchestra, and singing!).

I'm very lucky to have spent time here as a student, and I hope that many others enjoy their time here as much as I have.

musicalmemoirs



Steven Fiddaman
Biological Studies, 2010

Coming to the end of my time at Hertford, aside from the occasional bouts of angst regarding forthcoming finals, I find myself reflecting on the three years I have spent here. One of the things that will stick with me most - and which was one of the reasons for choosing Hertford over deer parks and meadows in the first place - is its music.

Music has always meant a lot to me; I started playing the piano from a young age, and the flute followed soon afterwards. Although having never been particularly talented at either, both have been a welcome distraction, and have enabled me to meet many of my good friends. Several of these friendships have come about through a mutual passion for music, facilitated by Hertford College Music Society (HCMS). The Society is

one of the largest of its kind in Oxford, boasting perhaps the highest standard non-auditioning orchestra and wind band in the university. Every term, HCMS organises a concert to showcase the two larger ensembles. Michaelmas 2012 saw the orchestra perform Haydn's *London Symphony*, while a typically eclectic wind band performance included Anderson's *Sleigh Ride* and *Global Variations* by Nigel Hess. The concert was held in the Holywell Music Room, a venue in which Haydn himself is known to have performed.

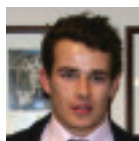
Michaelmas saw the last HCMS concert to be conducted by the College's Senior Organ Scholar, Edmund Whitehead. Although there is no requisite to be an organ scholar to conduct the orchestra, Hilary term sees Ed ably succeeded by his junior, Nick Graham. Hilary also marks the beginning of the handover of the baton from Tom Sears, mastermind and first conductor of the wind band. Although it will be sad to see Tom leave us, his legacy is in safe hands with Tom Fleming, our next

conductor. Overseeing proceedings will be the recently appointed HCMS President, Ellie Sims, who takes over from Olivia McDermott after an excellent term in office.

The influence of HCMS percolates much deeper in College life than organising large-scale concerts. In recent years, the Society has supported open-mic nights in the College bar, as well as organising the highly successful Jazz and Cocktails evening, which is to receive its second incarnation in the coming weeks. Furthermore, building on the success of last year's *Carols in the Quad* event, the wind band raised over £550 for the Stroke Association before Christmas.

All of these events, from weekly lunchtime recitals to impromptu late-night renditions of Mozart's *Requiem*, have helped to shape my experience of Hertford. I will be sad to no longer play an active role in HCMS (although the alumni concerts will certainly have a new recruit), but I can feel reassured that it continues to go from strength to strength.

bluemedicine



Will Dace
Medicine, 2011

My interest in medicine began as a schoolboy volunteer for West Berkshire Mencap, where I gained experience caring for children with learning disabilities, understanding their problems and how these affect them and their families. When I received my offer to study at Hertford College just over two years ago, I never envisaged the number of opportunities that would come my way at university.

One such opportunity was the Hertford College Studentship Scheme, which every year awards studentships to three Hertford undergraduates allowing them to work in labs or on a research project with Hertford fellows. A weekly living allowance, accommodation and food are provided for up to six weeks. I applied successfully and was lucky enough to gain experience in Professor David Greaves' laboratory at the Dunn School of Pathology over four weeks in the summer of

2012. During this time I helped design and test new practical experiments for the 2nd year Oxford Medicine and BMS courses, including a bacterial killing assay. I was exposed to the current research interests of the lab, in particular the adapted Electrical Cell-substrate Impedance Sensing (ECIS) technology for real-time analysis of leukocyte chemotaxis and adhesion. It was a fantastic experience which I owe to Professor Greaves and his team, and I would recommend the studentship scheme to any Hertford student who wants to pursue research interests. I am looking forward to applying the skills I learnt when I undertake my 3rd year FHS project in Professor Frances Ashcroft's lab, investigating the changes in pancreatic islet cell types in a mouse model of diabetes.

Whilst studying Medicine here is challenging, there is plenty of time to do other things. Rugby has been a big part of my life for over 13 years. I made my Blues debut in February 2013 and I have been lucky enough to start for Oxford at fly-half in two victorious U21Varsity Matches at Twickenham. I also coach

Hertford College Women's rugby, and plan to tour Mongolia this summer with HCRFC. Aside from rugby, I enjoy playing and teaching the guitar, DJing, and representing Hertford at mixed lacrosse. Since October 2012 I have been volunteering as media representative for Impact on Health, a small Oxford-based charity aiming to improve public health. I blog and tweet (@Impacton_health) about public health and the steps we at IoH are making to tackle the wider determinants of health.

Hertford medics have a fantastic group of tutors who have been instrumental in driving our academic and personal development. My year group did particularly well in our first year exams, and two of us were awarded Hertford College Scholarships, which is testament to our tutors' influential role as well as our own hard work. The Vaughan-Williams dinners are an opportunity for tutors, medical alumni, pre-clinical and clinical students to mix, and illustrate the strength of the medical community here at Hertford; I hope to continue here throughout clinical school as it is a privilege to be a part of this community.

cherwelledits



Imogen Beecroft
English, 2010

Cherwell is Oxford University's only independent student newspaper, and it is also its oldest, established in 1920. My involvement with the newspaper began in Michaelmas of my second year as a News Reporter, and I then spent two terms as a Lifestyle Editor spending my time sending people on blind dates and coercing my friends into partaking in Fit College. Having been Deputy Editor for a term I applied for Editor and was lucky enough to be chosen for the job, along with Anthony Collins, a third year Classicist at Corpus.

I was particularly wary of undertaking the responsibility, given my proximity to finals, but my tutors at Hertford were very supportive, and agreed that it was a good opportunity. The role is definitely a challenging one, but at the same time I've rarely worked so hard and had so much

fun at the same time. My week is definitely dominated by *Cherwell*, and in 0th week, when we were preparing for our first edition of term, we spent almost all of our time in the offices! Things settled as term moved on, and I usually spend about four or five days a week working on *Cherwell*, and the rest of the time I spend working on my coursework (I'm working on the lexicography option this term), and spending time with friends, reminding them that I haven't fallen off the face of the earth!

We have a team of over eighty people, who all work hard to produce quality content both for the *Cherwell* website and for the weekly paper. Working within the *Cherwell* team provides great opportunities and has certainly taught me a lot. For example, there are a myriad practical things which I'm sure I will find invaluable in later life, like managing my time and accumulating the technical skill necessary to create a newspaper which looks as professional as possible. Aside from this, I have met such a range of people working with *Cherwell*, and there is little as

exciting as finding out about a last-minute news story at 1am on a Thursday when the paper has to be sent to the printers in an hour!

The sheer variety of the responsibilities that come with the role of Editor is amazing: I have found myself involved with legal discussions and communicating with international news channels, as well as dealing with the commercial side of the publication, ensuring that there is sufficient quality content for the paper each week, and organising a variety of meetings and socials. This term *Cherwell* was the first to show the recent video of George Galloway leaving a debate on the grounds that he doesn't 'debate with Israelis', and the following day we had a team from Sky News in our offices, interviewing one of the *Cherwell* team.

Overall, it's been an amazing experience, and I'm so thankful to all of my tutors at Hertford for being so encouraging, and to my friends who haven't forgotten about me.

DATES FOR YOUR DIARY 2013 - 2014

APRIL

FRI
5 **US Economics Summit**
in New York City

FRI
26 **Oxford University European Reunion**
SUN **27**
28 in Madrid

MAY

FRI
10 **Geoffrey Warnock Society Lunch**

SAT
25 **Eights Week Buffet Lunch**

JUNE

SAT
1 **Summer Reunion**
Matriculation year 2005

THU
6 **Manchester Drinks**
at Ralli Solicitors

THU
20 **London Lecture & Reception**
at Willis Ltd, lecture given by Dr Emma Smith

WED
26 **Admissions Open Day**
THU **27**

SAT
29 **The Hertford Society's AGM & Evening Dinner**
at Hertford College

AUGUST

SUN
11 **Rugby Tour to Mongolia**
Organised by Hertford's Rugby Club & Old Boys Squad

SEPTEMBER

FRI
20 **Admissions Open Day**

FRI
20 **Oxford University Alumni Weekend**
SAT **21**
SUN **22**
www.alumniweekend.ox.ac.uk

FRI
27 **Hertford Bridge Centenary Celebrations**
SAT **28**
www.hertford.ox.ac.uk/bridge100

NOVEMBER

WED
6 **Hertford Conversations**
with Sir Roger Carr, President of the CBI

THU
14 **London Drinks**
at Taylor Wessing

JANUARY

FRI
10 **Gaudy**
Matriculation years 1994 & 1995

MARCH

FRI
7 **The Charnley Law Dinner**

FRI
21 **Oxford University Far East Reunion**
SAT **22**
SUN **23**
<http://www.oxfordchina.org/>

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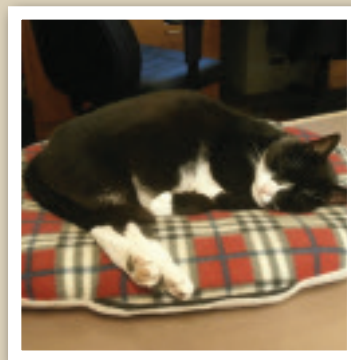
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Have a break, have a cat nap.



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