# **Oxford Medicine**

## THE NEWSLETTER OF THE OXFORD MEDICAL ALUMNI

OXFORD MEDICINE · NOVEMBER 2018



The large footprint of the Centre for Tropical Medicine and Global Health Pharmacology: understanding the mechanisms of the human body UNIQ: improving access to study medicine

## **President's Piece**



John Morris, OMA President

Welcome to the Autumn issue of Oxford Medicine, which is intended to keep those who trained in medicine in Oxford in touch with each other and with the medical school.

I am delighted to report that the medical school has once again (and now for the 8th year in succession) been given top

ranking for Clinical, Preclinical and Health. It is a great tribute to both the brilliance and hard work of all our staff – many of whom are also our alumni including our Head of Division, Professor Gavin Screaton. This has not been the only personnel change: Dr Tim Lancaster – for many years the Director of Clinical Studies – has been succeeded by Dr Catherine Swales; and Dr Paul Dennis – for many years Director of the Graduate Entry medical course, who has been succeeded by Dr David McCartney. Both also serve as members of the OMA Advisory Board which oversees all aspects of relations with our medical alumni. The Board meets 3 times each year in Oxford and we are currently looking for new alumni to join the Board. Please see more details below and do contact me if you would like further information.

As well as the reunion events, OMA also organises the annual Osler lecture during the Alumni Weekend in September and delivered this year by Prof Paul Harrison on "The ups and downs of bipolar disorder". You can judge its popularity from the fact that it had to be moved to a larger lecture theatre than originally planned. Other lectures during the weekend also have a medical theme, and it is always a pleasure to welcome back many medical alumni for the weekend. OMA used to organise an annual general meeting at the time of the alumni weekend, but our alumni were, not surprisingly, more interested in the other events. There is no requirement to organise an AGM and so the advisory board has agreed to discontinue it, but to put in its place a social occasion during the alumni weekend when members could express their views.

In this issue you will find update articles on both the Department of Pharmacology in the preclinical school, and the Centre for Tropical Medicine and Global Health which is a part of the Nuffield Department of Medicine and has programmes and centres in many of the countries of the world. You will also find an article about the developments at Osler House and something that I'm sure will bring back many memories - the poster for this year's TingeWick show! Every year this provides a lasting bonding experience for those who take part - they even have their own special reunions! So, I hope that you will find many items of interest in this issue. Do please consider sending to us articles of reminiscence about your time in Oxford, articles about new developments with which you have been involved, or concerns which you hope would be more widely acknowledged and addressed - it really is YOUR newsletter, so please send us YOUR news!.

# Would you like to be part of the Oxford Medical Alumni Advisory Board?

The purpose of the Board is to advise the Oxford Medical Alumni Office on strategy with a goal of increasing and enhancing engagement amongst its global community of clinical medical alumni.

The Board consists of 21 members: 14 members of OMA and 7 ex officio. From among the 14 members, a President and Honorary Treasurer are appointed.

Terms are typically three years with an option to renew for another three. Board meetings take place three times a year in Oxford, typically between 5–7pm.

If you would like to apply for one of the open seats, please do contact OMA for an application form: **oma@medsci.ox.ac.uk** 

Applications must be received by 1st February 2019.

## **News** Oxford retains top spot for medicine for eighth consecutive year

Oxford University has been ranked as the world's best institution for medical and health teaching and research in the Times Higher Education World University Rankings for the eighth consecutive year.

The discipline-specific tables for clinical, preclinical and health studies follow on from the announcement that Oxford has been ranked the top university in the world by the same publication for the third year running.

The ranking is based on criteria measuring teaching, research, industry income, international outlook and citations, which are combined to provide a comparison of universities worldwide.

Professor Gavin Screaton, Head of the Medical Sciences Division, said: 'Oxford's continued prominence in international rankings reflects our consistent drive for innovation and forging research relationships with industry that directly translate into improved clinical treatments and teaching.



There are around 5,000 full-time equivalent researchers, teachers and staff across the Medical Sciences Division at Oxford, as well as 1,500 graduate and 1,500 undergraduate students.

## Commemorating the development of Penicillin in Oxford

Blue plaques have been unveiled to mark significant locations in the development of penicillin. The plaques were unveiled at the Sir William Dunn School of Pathology and the Radcliffe Observatory Quarter.

Sir Alexander Fleming discovered penicillin in 1928 at St Mary's Hospital in London, but scientists in Oxford developed it into a viable drug.

The isolation and purification of penicillin to treat bacterial disease was mainly done by Howard Florey, Ernst Chain, and Norman Heatley, at the Dunn School from 1938 to 1941.

They later carried out clinical trials at the Radcliffe Infirmary. The first patient was Albert Alexander, an Abingdon policeman. Though his condition improved there was not enough penicillin and he eventually died. But in subsequent trials all patients treated ended up recovering.

By 1944 it was being mass produced in laboratories in the US, after the drug failed to get backing from any British pharmaceutical companies, and was used to treat soldiers wounded during World War Two.

Florey, Chain and Fleming were later awarded the Nobel Prize for Physiology or Medicine in 1945.

"It celebrates one of the world's greatest stories of drug discovery, ever," said the current Head of the Department, Professor Matthew Freeman at the unveiling ceremony. "It is one of those rare occasions where you can put a finger on the exact experiment that changes the world—an epoch changing event," he said, pointing above his head towards the laboratories where the original mouse experiments involving penicillin were conducted, ushering in the age of antibiotics.





## New statue of John Radcliffe unveiled

A two-metre high bronze statue of Dr John Radcliffe has been unveiled in front of the Radcliffe Observatory building at Green Templeton College.

To celebrate the tercentenary in 2014 of Radcliffe's death, the Ashmolean Museum, with finance from the Radcliffe Trustees, commissioned Martin Jennings to make a larger-than-life-size bronze sculpture of Radcliffe to stand in front of the Observatory, which is known as "the Tower of the Winds".

John Radcliffe (1653–1714) was the most successful physician of his day and the doctor to the likes of Queen Anne. After his death in 1714, the bulk of his fortune was left to his Trustees for charitable purposes.

# Catherine Swales: new Director of Clinical Studies



Congratulations to Dr Swales for her appointment as the new Director of Clinical Studies responsible for operational leadership of the Oxford clinical medicine course. Dr Swales has been teaching and training Oxford University medical

students and postgraduates since 2003, initially as Clinical Lecturer and since 2011 as Director of Undergraduate Studies at NDORMS. In 2012 she was elected as a Senior Fellow in the Higher Education Academy and in 2014 she was appointed as Associate Director of Clinical Studies for the Medical School.

## **Teddy Bear's Triumph**

Following retirement as Professor of Clinical Neurology, Harvey Sagar (matric. 1966) has taken to writing novels and poetry. In his first, semi-autobiographical novel about a career in medicine, including time at MGS, Brasenose College and Oxford Clinical School (Osler House). Entitled "Teddy Bear's Triumph; Tales



from a Medical Allotment", it is a largely humorous account of interactions with patients, doctors, nurses and lawyers. www.harveysagar.com

For more news articles from the Medical Sciences Division: www.medsci.ox.ac.uk/news

## Research

## Oxford secures £17.5 million to lead national AI healthcare programmes

Innovate UK and industry are to invest more than  $\pounds 17.5$  million in the University of Oxford to develop artificial intelligence (AI) healthcare applications to benefit patients.

Funding will be provided to the University of Oxford through the Government's Industrial Strategy Challenge Fund by as part of a £50 million investment to establish a network of digital pathology, imaging and AI centres, to drive innovation in the use of AI for improved diagnosis and delivery of precision treatments.

Oxford is to be home to one of the five new technology centres across the country, and is also a

Single cell analysis paves the way for better treatments for IBD

Researchers at MRC HIU examined the large intestine using sophisticated single cell technology, in work that paves the way for better treatments for IBD.

Inflammatory Bowel Disease (IBD) is a chronic inflammatory disease with limited treatment options. The two main forms of the disease, Crohn's disease and Ulcerative Colitis, affect more than 300,000 people in the UK. Up to 40% of patients with IBD fail to respond to conventional therapies, partly due to our limited understanding of the cells that form the large intestine, but also how they change in patients affected by this disease.

A new study by the group of Professor Alison Simmons at the MRC Human Immunology Unit based in the MRC Weatherall Institute of Molecular Medicine paves the way for better treatments for IBD by providing the first detailed single cell resolution analysis of colon cells in health and disease.

The researchers specifically examined mesenchymal cells, a group of cells that play instrumental roles in innate immunity, immune regulation and epithelial barrier maintenance in the gut. These cells are known to be important, but it is unclear whether they constitute a homogeneous population of cells, and/ or how they change in a disease context. The group led by Professor Simmons, examined these cells using sophisticated single cell technology that allows assessment of the characteristics of individual cells with incredible precision.

The full paper, 'Structural Remodeling of the Human Colonic Mesenchyme in Inflammatory Bowel Disease,' can be read in the journal (Kinchen et al (2018) Cell 175:372). collaborator in two of the other centres, with local activities integrated within the Big Data Institute.

The University of Oxford-led centre is the National Consortium of Intelligent Medical Imaging (NCIMI), in which UK Research and Innovation is investing £10 million. NCIMI will also benefit from a further £5 million of funding provided from its commercial partners. The consortium includes 15 NHS hospitals, industry (including GE Healthcare and Alliance Medical), charities, and patient support groups to develop new artificial intelligence tools to help speed up diagnosis of cancer, heart disease, genetic disorders and other conditions.



# Gene therapy breakthrough in treating rare form of blindness

Positive results of the world's first gene therapy trial for a genetic cause of blindness known as retinitis pigmentosa have been reported in Nature Medicine.

The trial involved 14 patients receiving a single injection into the back of the eye of a virus containing the missing gene and began in 2011 at the Oxford Eye Hospital – part of the Oxford University Hospitals NHS Foundation Trust. By the end of the study there was a significant gain in vision across the group of patients as a whole.

Furthermore, of the 12 patients who received the treatment without any complications, 100% either gained or maintained vision in their treated eyes, which was sustained for up to 5 years at the last follow up. During this time only 25% of the untreated eyes which acted as controls maintained vision. The gene therapy treatment was generally well tolerated and there were no significant safety concerns.

# Pharmacology: understanding the mechanisms of the human body



Nigel Emptage, Head of Department, Professor of Synaptic Pharmacology

Pharmacology is one of the five pre-clinical departments that form part of the University's Medical Sciences Division and our focus is on basic life sciences research, undergraduate teaching for medicine and biomedical science, and the training of graduate students.

We are at the forefront of research into the effects of drugs and other molecules on biological systems with a view to understanding the mechanisms of the human body. Our pre-clinical research examines cellular and molecular pathways in living systems as the first step towards an understanding of disease and effective treatment. Pharmacology, as the study of the action of chemical substances in the body, is a subject of considerable human and commercial importance.

Pharmacology recently celebrated its 100-year anniversary. Founded in 1912, we have an eminent history of world-leading research conducted by scientists such as Professor Sir William Paton FRS, who discovered the first drug to treat high blood pressure, Sir John Vane FRS, awarded the Nobel Prize in Physiology or Medicine in 1982, Professor Edith Bulbring FRS, one of the first women elected as a Fellow of the Royal Society, and more recently Professor Peter Somogyi FRS, winner of the inaugural 2011 Brain Prize.

In 1987 the University received a generous endowment from the Squibb Research Institute, providing funds for a new Pharmacology building as well as supporting research. Our new, laboratories were opened in July 1991. The new building provides the space and facilities required for world class research. Since our foundation, we have played an important role in training: many current leaders in academic and industrial pharmacology spent their formative years within the Department. Since 2006 the Pharmacology Statutory Chair has been held by Professor Antony Galione FRS, and the Head of Department is Professor Nigel Emptage.

Our research groups work within four key themes, cardiovascular pharmacology, medicinal chemistry, cell signalling, and neuropharmacology.

In the cardiovascular pharmacology theme, research using advanced imaging and electrophysiological techniques examines the cellular and intracellular mechanisms of the heart and microcirculation. Calcium signalling is a central focus of the cardiovascular pharmacology grouping, aligning this research closely with the cell signalling theme. Groups in this theme use advanced live cell imaging and electrophysiological techniques to link molecular and cellular mechanisms to functional tissue responses under both physiological and pathophysiological conditions in the heart and the microcirculation.

In our recently expanded medicinal chemistry theme, research is carried out into the design, synthesis and biological evaluation of active organic molecules at the interfaces of chemistry and biology. Developments in this area have been driven by a joint appointment with the Department of Chemistry and the arrival of a synthetic medicinal chemistry group. Work is characterised by a unifying focus to exploit chemical principles for intervention in biology and medicine. Repurposed drugs are currently undergoing trials for bipolar disorders.







The neuropharmacology theme aims to develop compounds to benefit humans with psychiatric and neurological disease. Researchers in this theme use chemical tools to explore the complexities of the nervous system, with the long-term goal of developing compounds that offer therapeutic benefit in humans with psychiatric and neurological disease. Our vision is that developing an integrated knowledge of the cellular and molecular mechanisms controlling communication between distinct cell types in key brain centres will ultimately allow a full understanding of human behaviour and cognition. Our research encompasses multidisciplinary aspects of modern molecular and cellular neuroscience taking full advantage of state-of-the-art research techniques such as opto- and chemogenetics, high-resolution in-vivo multiphoton imaging, stem cell biology and neurophysiological recordings combined with mathematical and computational modelling. Academic staff also collaborate with clinical researchers to enhance the impact of this research on patients and those who care for them.

Researchers in the signalling theme employ state of the art subcellular imaging, ion channel electrophysiology (including single channel studies), and the generation of novel molecular and chemical probes to dissect signalling pathways. Signalling is concerned with how cells communicate and the intracellular responses generated in response to chemicals including hormones, neurotransmitters and drugs. We are particularly strong in the areas of calcium signalling and organelle-based signalling in health and disease, with particular focus on the lysosome. Drugs have been developed to treat rare genetic lysosomal storage disease and are now in clinical use. Our senior academic staff (approximately 25) provide lectures, seminars and tutorials for undergraduate students undertaking the Medicine and Biomedical Sciences courses. The teaching provided takes the form of lectures and practical classes and, additionally, all academic members of the Department, with the exception of research fellows, provide the full quota of college undergraduate tutorial teaching in the area of Physiology and Pharmacology. These tutorials complement the lectures and tutorials.

We offer a comprehensive, and possibly unparalleled, programme of practical classes for the year 1 and 2 undergraduate BMS and Medical students. The handson experience of in-vitro and in-vivo practical classes is an essential component of student study and aids the understanding of physiological and pharmacological principles. These classes provide a critical grounding in the practical problems associated with conducting real experiments, the analysis of experimental data and in writing up of experimental results. The skills learnt provide an important foundation for the third year labbased experimental research projects.

Our Chemical Pharmacology supplementary course, under the Directorship of Associate Professor Grant Churchill, now attracts around 100 undergraduates a year from a diverse audience of chemists, biochemists, biomedical and medical students. We also host an internationally-renowned one-year MSc taught course in Pharmacology for around 30 students each year, and have a community of around 50 DPhil students. A notable contribution to the world-wide teaching of Pharmacology is the textbook 'Rang and Dale's Pharmacology' coauthored by Dr Maureen Dale, a long-standing associate member of the Department.



# Oxford Tropical Medicine: the large footprint of the Centre for Tropical Medicine and Global Health



Nick Day, Professor of Tropical Medicine, Director of the Mahidol-Oxford Tropical Medicine Research Unit, Thailand, and of the Wellcome Trust Thailand Africa and Asia Programme

A week ago you returned from a trip of a lifetime safari in Tanzania, and while initially you felt rejuvenated by the holiday, you are now shivery, ache all over, and feel truly awful. A trip to the GP, and then to your local hospital, and you have a diagnosis of malaria. You are treated with an artemisinin combination therapy, and within two to three days are completely cured. What you will probably not realize is that Oxford researchers and their local collaborators working in the tropics made major contributions to the development of this extremely

efficient treatment, leading to its availability in the UK and worldwide as a first line treatment for malaria. It's one example of the fruits of research carried out over the past 40 years by the Oxford Tropical Network.

Many Oxford colleagues and alumni are surprised to learn that the University has a network of research units in Asia and Africa. This is centred around three large Wellcome Trust-supported tropical medicine research programmes, based in Bangkok, Thailand, Ho Chi Minh City in Vietnam, and in Kilifi on the Kenyan coast. These enterprises are not small, employing 119 Oxford staff and over 2,000 local clinicians, scientists and support staff. Many staff are in clinical research units in other parts of their programme's host country, and in closely linked regional research units in Laos, Indonesia, Nepal, Cambodia, Myanmar, Uganda and the Democratic Republic of Congo. Working with their many close collaborators based in governments, hospitals, and academic institutions, the programmes are currently carrying out clinical and epidemiological research in over 60 sites across Asia and Africa.

All this overseas activity is ably supported by the Nuffield Department of Medicine's Centre for Tropical Medicine and Global Health (CTMGH), based in true Oxford fashion in a large but rather gloomy basement on the Old Road Campus in Headington. In addition CTMGH hosts an increasing number of Oxford-based academic groups whose research focus is on global health. All together CTMGH manages a funding portfolio of £310m, which supports the research of 57 principal investigators including 27 professors and 19 associate professors, - four fifths of whom live and work in the tropics. The Oxford Tropical Network hosts nearly 200 DPhil and PhD students, mainly based in the overseas units, and in Oxford CTMGH manages the internationally popular Masters in International Health and Tropical Medicine. What is now a large and extensive network began in 1979 when, with the encouragement and support of the newly appointed Nuffield Professor of Medicine, David (now Sir David) Weatherall, David and Mary Warrell founded the unit in Thailand as a partnership between Oxford, Thailand's Mahidol University, and the Wellcome Trust. The initial research focus was on severe malaria, snakebite and rabies. A seminal clinical trial in cerebral malaria proved that the then widely used steroid treatment was harmful rather than beneficial, and despite heroic efforts at treatment established rabies encephalitis proved as 100% lethal as ever. In 1986 Nick (now Sir Nick) White took over as director of the Thailand Unit. He expanded the malaria research and, following a very unpleasant experience involving an escaped cobra in his Land Rover, discontinued studies on snake bite. The unit started working on malaria along the Thai-Burmese border, and in Northeast Thailand began to study melioidosis, a common, deadly and hitherto understudied bacterial infection afflicting rice farmers. A new antibiotic treatment halved the death rate from melioidosis from 80% to 40%, and incremental advances in its diagnosis and treatment have continued since.

In 1991 a new unit was started in the Hospital for Tropical Diseases, Ho Chi Minh City in Vietnam (the Oxford University Clinical Research Unit, or OUCRU), focusing on the nature and treatment of severe malaria, typhoid, dengue and tetanus. This began as a spin-off unit of the Thai unit, but has since expanded into a major separate research programme and an important public health resource for the whole country. It attained international recognition during the 2003 avian influenza epidemic, when the then OUCRU director Jeremy Farrar (now director of the Wellcome Trust) and his colleague Prof Tran Tinh Hien described the disease and its lethality in a large series of patients. OUCRU also made significant headway on improving survival in tuberculous meningitis using steroid treatment (the same treatment which didn't work in cerebral malaria). The young research fellow who conducted this landmark trial, Guy Thwaites, is now the director of OUCRU.

Meanwhile Oxford was not standing still in Africa. The KEMRI-Wellcome unit in Kilifi in Kenya was founded in 1989, and under Kevin Marsh (director from 1990 until 2013 ) expanded to become one of the foremost medical research centres in Africa with state of the art laboratories and a large demographic surveillance system to track malaria and other infections in the surrounding population. Roughly 90% of malaria deaths worldwide occur in African children, and KEMRI-Wellcome's has been working to understand the epidemiology of malaria and of the human immune system's response to being infected, to improve the treatment of this devastating disease, and to test vaccines that might prevent infection in the first place. It is now directed by Philip Bejon, who led a large clinical trial of the RTS,S malaria vaccine, the only malaria vaccine to have been developed to the





stage of pilot deployment. In KEMRI-Wellcome's Nairobi unit Bob Snow works on mapping malaria and malaria deaths. This year Bob published what he calls his life work, a paper describing the prevalence of malaria infection across the whole continent over the past 115 years. In this extraordinary paper Bob analyses 50,424 historical malaria surveys he has painstakingly collected over the past guarter century. These surveys were conducted at 36,966 geocoded locations, and the resulting space-time map showed that whereas malaria prevalence has gone up and down considerably over the twentieth century, from 2000 onwards we have witnessed a welcome but unprecedented decline. The combination of insecticidetreated bed nets (also tested by KEMRI-Wellcome) and artemisinin combination therapies (rolled out since 2006) have probably contributed to this decline, but are not the whole story.

If a child does get severe malaria she can now be treated with injectable artesunate, which significantly increases survival compared with injected quinine. This artemisinin derivative was developed by Chinese scientists, but the large clinical trials in both Southeast Asia and Africa which led to it becoming the WHO recommended first line treatment for severe malaria globally were initiated and led by the Oxford Tropical Network. We estimate that this move to artesunate from quinine has already prevented at least one hundred thousand deaths in African children since 2010.

All is not rosy though, as ten years ago the Oxford Southeast Asian units detected malaria parasites resistant to the artemisinins, and there is deep concern that this resistance will spread to Africa, with potentially disastrous consequences. The Oxford Tropical Network in both Asia and Africa is currently deeply involved in collaborative research to develop tools to stop this happening, and to test new drug treatments which will both prevent and treat resistant infections.

The programmes in Asia and Africa are all collaborations with local partners, and the joint research contributes to training host country academic leaders and local research capacity. Most of each unit's collaborations are between partners in the South, rather than the more traditional North-South interactions; and research projects are increasingly led by local academics, many trained within the programmes. As the UK faces up to the uncertain and maybe unrealistic task of being 'Global Britain', at least in terms of international health CTMGH is doing its bit to promote 'Global Oxford'.



## **News from Osler House**

#### Alexander Mafi, Osler House President 2018-19



With the recent arrival of the new clinical intake, both the academic year and the Osler event calendar are already in full swing. Over the last two weeks myself and the new committee have enjoyed welcoming the new 4th years to clinical medicine. During the day they have had teaching from sixth years on examination technique and history-taking to help prepare them for their first ward placements. In the evenings, the committee have put on a range of events including the meet and greet event with their 'medic parents', the annual fresher's dinner at St Edmund Hall College and the Osler bop to round off the fortnight. These events were interlaced with a Tingewick-led consultants gameshow which proved to be hilarious and a wine and cheese night. The Tingewick firm are currently making the finishing touches

to their Tingeaid production 'Murder We Wrote: Who killed Tingewick firm...' which will I'm sure whet everyone's appetite for this year's much anticipated Tingewick pantomime (Shrektococcus – Lord of the UTIs). This year funds are being raised for Medecins Sans Frontieres and South Oxfordshire Food and Education Alliance.

In Osler House itself, we have been enjoying the new glass corridor and the garden with the beautiful weather this summer. We have also begun inductions for the new gym which, alongside extended Osler opening hours, means students can make full use of the new facility. We are looking forward this year to laying on the annual Christmas dinners in December, halfway-hall for the fifth years and most importantly, celebrations to mark the end of finals, which the sixth years are beginning to gear up towards. We are further aiming to expand the work of the Osler welfare team to ensure ongoing support for all Oxford clinical students, including the introduction of a Black and Minority Ethic rep to help represent and support the BME students here in Oxford.

My thanks go out to Nic and the former Osler committee for all their hard work over the last year, and to the new committee who are already proving their dedication and determination for what will I'm sure be another great year for Osler.



# **UNIQ 2018 Medicine Course**

#### Molly Nichols, UNIQ Medicine Ambassador



This summer, the University held its eighth annual UNIQ summer school, aimed to improve access to Oxford. The residential programme is open to high-achieving, state school pupils from lower socio-economic status backgrounds or areas of low university progression. Successful applicants are given the opportunity to live within an Oxford college accommodation for one week and gain an insight into what life is like as an undergraduate, through an intensive academic and social programme.

The medicine course of UNIQ invited 40 budding medics to experience many aspects of the six-year medical course, involving both preclinical and clinical elements. The group of enthusiastic students coped well with the many challenges presented, getting to grips with second year undergraduate lectures and ably tackling tricky mock interview questions. A session on cranial nerve function and neuroanatomy, delivered by Professor Molnar, sparked excitement among the students as they were given the opportunity to handle a human brain. Lectures on the hallmarks of cancer and cell growth, given by the UNIQ course director - Professor Norbury, were applied to an interactive histology session. The students quickly mastered the lab microscopes to look at a variety of oncological tissue sections. An applied physiology and pharmacology practical was very well received by the students, who were able to independently run experiments involving ECG and BP measurements under different physiological conditions. Their interpersonal skills were also put to the test in a communication session led Dr Salisbury, alongside her incredible team of actors and GPs. Individually, students were placed in a GP consultation setting and were challenged with many difficult patients with a range of complaints.

Meanwhile, at John Radcliffe Hospital, the UNIQ students were given a taste of clinical practice. Clinical research fellow and vascular surgeon Dr Hurst, helped by a group of fifth and sixth-year clinical medical students, taught the students a variety of key skills, from venepuncture to basic life support and airway management. Lots of fun was also had, applying plaster casts to one another. While up the hill, the group was introduced to the wonders of clinical research at the Oxford Centre for Functional MRI of the Brain. Students were able to create their own experiment, asking the participant to follow



certain tasks in order to assess changes in activity on the brain scan images.

Each year, the academic programme is supplemented by admissions support delivered by UNIQ ambassadors, like myself. We deliver sessions on personal statements, interviews and the BMAT, answering questions and dispelling any misconceptions the students may have.

Now a fifth-year medical student, I attended UNIQ myself in 2013. For me, the summer school gave me the determination, confidence and skill set to apply. The help I received from the course academics and my ambassador, (who has just graduated to begin life as a junior doctor!), was invaluable. I always relish the opportunity to work as an ambassador on UNIQ as I take great pleasure in watching the students grow in confidence as the week progresses, in the same way as I did when I was in their position.

For many students, UNIQ is often the first time they have visited Oxford, let alone experience how the college and tutorial systems work. Sadly, many pupils do not apply due to low aspiration, misperceptions of the university and not having access to good information, advice and guidance, so UNIQ is an incredible opportunity for them to realise their own potential.

It is down to the success of the UNIQ programme and its dedicated staff that from 2019 UNIQ will be expanding. Numbers are to increase by 50%, opening up this wonderful opportunity to even more state school students. For more information – www.uniq.ox.ac.uk



## **BM BCh graduation reception 2018**

Now in its fourth year, the annual reception to congratulate the new graduating doctors took place on a sunny Saturday in July. After the formal Latin graduation in the Sheldonian Theatre, the new doctors and their families gathered in the Exam Schools to celebrate their achievements and for the Medical School to wish them well in their clinical careers. Dr Catherine Swales, the new Director of Clinical Studies, said in times of darkness, when in need of inspiration or solace, our new graduates should turn to the inestimable Dr Seuss for wisdom.



Rebecca Oram (former Osler President of the cohort) thanked all the friends and families present for their support over the past six years.



The Meakins McClaran Medal was presented to Emily Groves. This prize was endowed by Professor Jonathan Meakins and Dr Jacqueline Mcclaran in 2007. It is awarded annually to the final year Oxford student achieving the highest performance across the three years of the clinical course.

Professor John Morris welcomed the new doctors as the newest members of Oxford Medical Alumni.



"You have brains in your head. You have feet in your shoes. You can steer yourself any direction you choose."

*Oh, The Places You'll Go!* by Dr Seuss © Dr Seuss Enterprises

## I was Professor Witts' lecturer

In the summer of 1962 Sir Ronald Bodley Scott, the chief I was then working for at St Bartholomew's Hospital, told me that Leslie Witts, the Nuffield Professor of Medicine at Oxford, was looking for a lecturer and would I be interested in applying? I leapt at the chance. When the day of my interview arrived I was seen by Professor Witts who had been Professor of Medicine at Barts for four years before being appointment to the Chair of Medicine at Oxford. Leslie John Witts was an astonishingly youthful man. It may be apocryphal, but it is said that when he was newly appointed he was asked by a ward sister to leave her ward because she did not like students to be there at patients' meal times! On another occasion, the mother of one of the students asked him why he was not outside playing rugby with the other boys!

Leslie had built an excellent department with John Badenoch, Sheila Callender and Sidney Truelove. It was leading in research on vitamin B12, folic acid and iron absorption and metabolism. After my interview with Witts, he suggested that I talk to Sheila. I knocked on the door of her office and, on hearing movement inside, went in to be confronted by the biggest dog I had ever seen which had its paws on Sheila's desk as if to start my interview. No one else was in the room except for this old English sheep dog, one of the dogs that Sheila showed at Crufts. Fortunately, at that moment Sheila walked in and from the first moment we got on well. She was both an excellent clinician and a first-class research worker and had made her name in research on iron absorption. I was appointed to help with that research and also had clinical work to do on the wards and outpatients. On Thursday afternoons I also helped with the clinical meeting known as the Wittery.

Oxford had only recently started a clinical medical school; previously students had to complete their clinical training at one of the London teaching hospitals. John Badenoch was Director of Studies and I was his deputy. Teaching using the tutorial system with a small number of students was a real pleasure, and very different to the large classes I had been used to in London. In my first assignment I had just six students – four men and two women.

The calibre of the general practitioners in the Oxford region astonished me after my experience in London. On one occasion Leslie Witts received a letter from a local doctor asking him to confirm that the patient he was referring had a phaeochromocytoma. Two weeks later this diagnosis had been confirmed and treated and patient returned to health.

Despite the disparate group of consultants in the Nuffield Department of Medicine, it ran well under Witt's leadership. Witts was such a contrast to my previous chief, Bodley Scott. He was tall, thin and introspective,

chief, Bodley Scott. He was tail, thin and introspective, and a colleague once remarked that the was the kind of man who felt a sense of sin if he picked up a novel to read before ten o'clock at night. He often seemed withdrawn and could be difficult to approach at times. This was probably the explanation for the only occasion on which I incurred his displeasure. I had failed to show him the final (after many) draft of a paper on iron that I had submitted, because I did not want to disturb him again. It was said that he was disappointed that more work was not coming out of the labs and so he was quite pleased when he used to find me working there 'out of hours'. In the week of the Cuban missile crisis, he was highly amused when I met him in the corridor and told him I was very worried about an experiment that was not going well because, as he said, we might all be blown sky high at any moment.

Leslie Witts outlook on medicine and the people who he regarded as successful in the profession is admirably summarised in his Presidential Address to the Oxford Medical Society on June 8th, 1962. After examining the role of intelligence, self-confidence, judgement, charm, ambition, luck, and knowing the right people, he concluded that the essentials for happiness were 'enough money, and interesting job, and a satisfactory marriage'. These, he believed, were probably easier to obtain in medicine than in any other occupation. His good sense shines through after more than half a century. I owed much to this thoughtful man and I thank him for three of the happiest years of my career.

#### Editor's Note:

1. The Witts lecture theatre in the Radcliffe Infirmary was so named in Leslie Witts' honour.

#### By Professor Emeritus James Malpas

# **Obituaries**

## Michael Gelder

Michael Gelder, who died on March 30th 2018 of carcinoma of the prostate at the age of 88, was a remarkable man. He was an outstanding academic psychiatrist whose research changed clinical practice, who founded the Oxford University Department of Psychiatry and was a key person in the extraordinary transformation of a small clinical school into today's internationally distinguished Medical Sciences Division. He combined a powerful intellect, determination, clarity of expression and exceptional organisational abilities. Whilst confident in his abilities, his modest and serious manner meant he never received the public recognition and honours he deserved.

As a young research worker at the Maudsley Hospital and Institute of Psychiatry Michael devised a new behavioural approach to anxiety disorders using desensitisation and relaxation and, in 1966, published with Isaac Marks a controlled trial in patients with severe agoraphobia. This led both to a programme developing precisely defined treatment methods for various anxiety disorders and to introducing methods of rigorous evaluation into psychiatry.

Michael's success resulted in him being appointed to the new W A Handley chair of psychiatry in Oxford. Arriving at the Warneford Hospital in 1969, he immediately began with great energy to build the first academic



department of psychiatry outside the Maudsley and Edinburgh. Despite modest initial resources, he recruited talented colleagues, acquired increasing space and develop research programmes. At the same time he established a clinical unit and gave vigorous leadership to a previously unhappy clinical service and to organise teaching and training.

His main research interest continue to in the development of behavioural and later cognitive treatments of a wide range of anxiety ad depressive disorders. He collaborated with David Grahame-Smith, Professor of Clinical Pharmacology, to develop another new area of research, psychopharmacology and later promoted multi-disciplinary research teams in areas from childhood to old age.

Always fully involved, he attracted generations of psychologist and psychiatric colleagues, raised large funding and ever expanding buildings and facilities. He led from the front and was always conspicuous in the Department and in the clinical unit both in person and in an avalanche of terse memos in his characteristic black ink. He also manged to play influential roles at the MRC and the Wellcome Trust. By the time he retired in 1996 he had built a substantial department of high distinction and second only in size to the Institute of Psychiatry.

Michael was an active member of the small group, including David Weatherall and Peter Morris, that Richard Doll established when he became Regius Professor, that met weekly to plan the transformation of Oxford into a world renowned centre of medical sciences research. Though rather few people were aware at the time or have been since, this talented ambitious group formulated strategies that totally changed the clinical and preclinical medical schools and indeed Oxford University. Michael rightly saw this as one of his greatest achievements.

Yet another project was the *Oxford Textbook of Psychiatry*, written with Gath and Mayou and published in 1983. It was followed by a short medical student text with the same co-authors. Both works combined critical review of original sources, clinical acumen and much re-writing to produce a readable prose and became internationally successful works with numerous editions. He was later the principal editor of a very substantial multi -author Oxford textbook.

Michael Gelder was an only child born in Yorkshire and educated at Bradford Grammar School. Determined on a medical career he resisted persuasion to join the family firm and was elected to a scholarship at The Queens College to read physiology in which he obtained First class honours. After clinical training at UCH and National Service, he trained in psychiatry at the Maudsley Hospital. He then became an MRC Fellow at the Institute of Psychiatry and Honorary Consultant at the Maudsley Hospital until his move to Oxford.

He married Mandy, a nurse whom he met as a medical student, and they remained devoted through 63 years of marriage. In Oxford they lived in a large house and garden with a tennis court in Jack Straw's Lane, Headington. In later years, when Mandy suffered disabling orthopaedic problems, he ensured they continued a remarkably full life together. They had three children and eight grandchildren.

In his working life. Michael was serious, even formidable, with no time for small talk. However, he was fair, a great supporter of the careers of members of his department

and also an excellent clinician. Despite London days and other travel, he always seemed to be available and present at all departmental occasions. It was a surprise to those who knew him only at work to learn that at Merton College, amongst his friends and in his very full and happy family life he was seen as relaxed, sociable, humorous and excellent company with many interests.

In retirement in 1996 Michael continued editing editions of the text books with his usual drive and seemingly undiminished mastery of the literature. He enjoyed family life and friends and had many interests, including tennis and real tennis, walking with a succession of Alsatian dogs (finally a virtual dog, he told me) and with Roger Bannister's walking group, travel, especially Italy and India, his Italian conversation group. As I discovered, lunch with Michael was an occasion to look forward to. A long life of great achievement

#### Written by Richard Mayou

## Sue Kelly



Sue graduated from St Hilda's College with 1st Class Honours in Physiology in 1970. Following a D.Phil. in experimental embryology at Wolfson College, she retrained as a doctor, completing the pre-clinical stage at St Hilda's then returning to Wolfson. After

junior doctor posts mainly in Oxford, including three years' research in the Nuffield Department of Clinical Medicine, in 1988 she was appointed Consultant Haematologist at Wycombe General Hospital, where she held a number of additional positions, including Chair of the Local Research Ethics Committee and Associate Medical Director.

Despite the problems of the NHS, Sue loved her time at Wycombe, particularly the combination of clinical and laboratory work, and was devoted to, and highly regarded by, her patients. She was passionately dedicated to the core values of the NHS. As she wrote in a letter to the Guardian, "It was the freedom from having to be commercial that allowed me and my colleagues to place the patients' interests as our paramount concern. Never having to question how a patient was to pay for their treatment has been a great privilege." Sue's doctoral work involved an elegant set of experiments which essentially defined the first stem cells, thus helping to underpin subsequent stem cell research; four decades on, they were cited in a review article in Nature Genetics. Throughout her career she remained active in research, publishing in all some 30 sole or joint articles in scientific journals.

After retirement in 2009 she held part-time positions as Consultant Haematologist at High Wycombe, Bury St Edmunds, and Oxford, where she particularly enjoyed training haematology registrars in laboratory work. But the last nine years of her life were overshadowed by illness, which she faced with extraordinary fortitude. She was diagnosed with a mucosal melanoma in 2008, and after many years' successful treatment the disease spread early in 2017, and she died on 13 October.

Sue was quite a reserved person. Not much given to social small-talk, she spoke about the things she cared for or was interested in, though she said little about her deepest feelings. She expressed herself above all through her work and through family and home life. She married her husband David in 1981, and had two daughters, Rebecca and Victoria, in 1982 and 1985. She was a devoted, energetic, and, in a typically quiet and efficient way, wonderfully supportive mother and wife. She was an excellent, very precise cook. Apart from part-time work and travelling, her major retirement project was to rebuild the family house in Cornwall. The other great pleasure of her retirement was the arrival in 2016 of her grandson Eddie.

#### Written by David Robey

# The Radcliffe Infirmary Commemorative Commission

The Radcliffe Infirmary closed as a hospital in 2007 and Oxford University has since developed the site as the Radcliffe Observatory Quarter (ROQ). The original Infirmary building with St Luke's Chapel, the former Outpatient's department and Triton have all been restored. The Outpatients department now houses the University Primary Care faculty, but apart from a plaque inside the front entrance and a blue plaque on the street wall, commemorating the development of penicillin, there is little to recognise that the building was a world renowned hospital which cared for the sick of Oxfordshire for nearly two hundred and fifty years.

A group of nurses who trained at the Radcliffe Infirmary, approached the University in 2012 for their agreement to commission a permanent art work to commemorate all those who have worked at the hospital – the nurses, doctors and all supporting staff in their many different roles. The University received the idea very positively and gave their permission.

A small group has been working closely with ROQ Development Directorate, the University Public Arts Committee and the University Estates Department to commission a suitable art work. The brief for the chosen artist, Alec Peever, was to evoke the ethos of good care, and to be timeless and universal, reflecting the poem 'These are the Hands' by Michael Rosen inspired by the NHS.

While we have raised money from generous members of the Radcliffe Guild of Nurses, we now need to appeal more widely to others who have been associated with the Radcliffe Infirmary, either as staff or as patients, to raise the shortfall, to achieve a permanent reminder of the hospital's illustrious history.

The proposal comprises two distinct aspects: the historical acknowledgement of the important role the building has played in the medical life of Oxfordshire and the wider world, represented by a hand carved oval plaque to be mounted on the external stone wall of the main hospital building. The second aspect is a carved interpretation of a poem called, 'These are the Hands', specially written by poet, Michael Rosen to celebrate the 60th anniversary of the NHS, which touchingly represents the human contribution, from which we all benefit.

The two pieces, each carved from the same stone are to be linked visually by placing them opposite each other; the poem, hand carved into a freestanding stone shaft, and whilst referring literally to the 'Hands', there is a relief carving of hands on the wall-mounted plaque.

If you would like to receive further information or make a donation, please contact Mrs Xante Cummings by email: xante1@btinternet.com or Thelma Sanders: tasdelves@gmail.com









# Your legacy...their future

Oxford's Medical Sciences Division has a remarkable track record for undertaking vital, pioneering research in areas ranging from cell biology through to drug discovery and population health studies. Over the years, Oxford's research findings have played a key role in shaping the modern world and will continue to revolutionise healthcare nationally and internationally. Furthermore, we educate the brightest and best students from across the world, equipping the next generation of medical professionals and world-class researchers with the knowledge and skills they need to succeed.

As we look to the future, we want to ensure that our research endeavours and teaching provision are sustainable for generations to come.

A legacy gift will help the Division to continue to support our leading research programmes and exceptional students.

Your support will really make a difference. Whether large or small, for bursaries and scholarships, academic positions, or to support core activities, every gift is valued and appreciated.

If you would like to know more about leaving a gift in your will, to the Medical School, a specific Department or the Division please contact Caroline Reynolds on (44) 1865 611520 or caroline.reynolds@devoff. ox.ac.uk

For more information, please see: https://www.campaign.ox.ac.uk/legacies

And if you have already left a gift in your will, please let us know so that we can thank you properly.



## OMA Sydney March 16th - 18th 2018

The Oxford Medical Alumni Australian Reunion was a delightful weekend with an excellent programme of interesting varied papers, many new friends and a lovely personal touch by the hosts.

The weekend opened with a reception in the world famous Cricket Museum dedicated to the Australian cricketer Don Bradman in the attractive small town of Bowral, about 90 minutes drive south-west of Sydney. Even for those not afflicted by the game, this was an interesting view on another world of dedication, passion and drama. There was a good review of the changes in the bats, ball construction, clothing and even national pride, particularly with a good examination of the infamous Bodyline bowling controversy by the dastardly English in 1932/3. It still rouses passions today!

The meeting proper, held in an old Country Club style hotel in Bowral, started on the Saturday morning with a mixture of medical and general interest papers ranging from MRI tractography in psychiatric conditions to music therapy and nutrition to walking in Tasmania.

A free afternoon allowed some to explore the popular region around Bowral and time to get to Brogan's End, Phil and Sarah Crowe's farm in the beautiful Kangaroo Valley a few miles away. Most took the edge off over 30\* temperatures with a dip in the Kangaroo River and then pre-dinner drinks led into a wonderful meal looking out over the valley to the Northern Ridge of the valley. This personal touch was instrumental in making the whole weekend such fun and many new friendships and plans were made during the sunset meal.

We all went away with deep gratitude to Sarah and Phil Crowe for a wonderful weekend and with a desire to reconvene in the Brisbane area in 2020.

#### Thank you

# Oxford's alumni group network – a truly international affair

What have a lecture with the Archbishop of Canterbury and a traditional Weißwurstfrühstück (white sausage breakfast) got in common?

They were two of over 500 events held by Oxford alumni groups over the past year – and illustrate the breadth of activities on offer for Oxonians.

And, with more than 200 groups located in over 90 countries, the alumni group network is a truly international affair.

There are 39 groups in the UK alone – from Aberdeen to the Hampshire and the Isle of Wight to Norfolk and Cardiff.

Collectively, the alumni group network boasts a varied programme of events to appeal to a diverse audience – from educational talks with Oxford speakers to drinks receptions and social events around the varsity boat race.

In the past year, new groups have formed in Slovenia and Hungary, as well as an entrepreneurial network on the west coast of the USA – Oxford Entrepreneurs of the Bay.

Many groups also hold outreach and access events to encourage applications to Oxford as well as freshers' events to welcome incoming students. This year more than 30 groups held such events – from Cardiff and Paris, to India and beyond.





The Cornwall group is one of several UK based groups to offer bursaries to local students to embark on projects during the summer vacation related to their studies. The group disbursed more than  $\pounds2,000$  this year for six medical electives and three undergraduate bursaries.

Among those to benefit were St Hugh's student Benjamin Patel. His medical electives in South Africa and the USA gave him an insight into reconstructive surgery in very different settings with diverse challenges.

Merton medical student Talullah Shepherd embarked on a medical elective in Nepal, which gave her experience of obstetrics and gynaecology, and then accident and emergency in Malta.

To find a group near you, visit: www.alumni.ox.ac.uk/ networks or email the Networks Team at: networks@ alumni.ox.ac.uk

# **Oxford Medical Lecture Club**

Oxford Medical Lecture Club (OMLC) meets monthly at Osler House (on the site of the John Radcliffe Hospital) for a lecture on current clinical work and research developments at Oxford. Previous subjects have included 'Understanding Pain through Advanced Neuroimaging, Oxygen Sensing, Junior Doctor Retention and Medical Care in Prisons. The lecture lasts up to 45 minutes followed by a Q&A session. New members are very welcome. If you would like to find out more about the Lecture Club, please contact OMA.

## **Upcoming speakers:**

November

Monday 26th November – Mr Henry Marsh CBE FRCS

## December

Monday 17th December – Professor Derek Crook MBBCh FRCP FRCPath

## January

Monday 28th January – Doctor Susan Iles MA DPhil BM BCh FRCPsych

### February

Monday 25th February – Professor David Kerr CBE FMedSci FRCP





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# **Events and Reunions in 2019**

### March

Saturday 16 March 2019 20th Anniversary Reunion (1999 qualification)

22-24 March 2019 Meeting Minds: Alumni Weekend Tokyo

#### April

10-13 April 2019 North America alumni events in Boston, Toronto and Washington, DC

#### June

Friday 7 June 2019 **50th Anniversary Reunion** (1967 and 1968 clinical school intake)

Saturday 15 June 2019 10th Anniversary Reunion (2009 qualification)

#### September

Saturday 21 September 2019 The Osler Lecture

20-22 September 2019 Meeting Minds: Alumni Weekend Oxford

#### October

Saturday 5 October 2019 **40th Anniversary Reunion** (1979 qualification)

### November

Date to be confirmed 2019 **30th Anniversary Reunion** (1989 qualification)

Tickets for the reunions can be purchased through our website: **www.medsci.ox.ac.uk/oma** 

If you qualified in one of these years and would like to offer any advice for the organisation of these events, please do contact us. Thank you.



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