Oxford Medicine

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The Regius reflects on 45 years in medicine Professor Sir Peter Ratcliffe FRS, Nobel Laureate Tingewick is 80!

Does Developmental Dyslexia Really Exist?

President's Piece



Dr Lyn Williamson, OMA President

Welcome to the December issue of Oxford Medicine, the newsletter for Oxford Medical Alumni (OMA) who have trained, taught, or worked at Oxford. Professor John Morris, OMA president for the past six years, handed the baton to me in September. It is a daunting task to take over from someone so beloved and so

respected, who has taught anatomy to generations of Oxford students and postgraduates, and shaped the preclinical school for many years. With his characteristic kindness and wisdom, he said: 'You will be fine – and I will be there to advise you'. Who could resist?

In this edition we feature two academic medical giants of our era, Professor Sir John Bell and Professor Sir Peter Ratcliffe.

Regius Professor of Medicine, Sir John Bell, looks back over his 45 years of medicine at Oxford with usual selfeffacing wit, wisdom and incisive thinking. The future is bright; the future is still Oxford.

Professor Sir Peter Ratcliffe, on his way to Stockholm to receive his Nobel Prize for Medicine, shares his memories and insights for budding physician scientists. We are proud as an alumni community to offer our congratulations to him.

Anniversary commemorations afford alumni the opportunities to remember, revel, reflect and maybe even learn from the past. At the same time, they can enjoy the present, and prepare for the challenges of an unpredictable future. OMA organises five alumni reunions each year, and we feature reports from the 30th and 10th. Sir William Osler's Centenary commemorations will continue throughout the year in Oxford and beyond. The Osler Club is the first of a number of thriving postgraduate Oxford medical societies we plan to feature. Professor Terence Ryan summarises this year's five Osler Club seminars exploring the Oslerian theme 'For Health and Wellbeing, Science and Humanities are one'.

Tingewick is 80 this year. In 2019, as in 1939, Tingewick is still the most inclusive Oxford clinical student society. This year, every first year clinical student took part – that is 165! The show was a triumph of teamwork and talent. The legacy of camaraderie will last a lifetime – as witnessed by the 80th anniversary celebrations. Dr Derek Roskell, Senior Tingewick Member for 25 years adds his recollections and reflections.

Humour may change with eras, but its power to uplift and unite endures. Viva Tingewick!

We are always delighted to hear news from current medical students, and include reports from Osler House, Tingewick and the Oxford Medical School Gazette (OMSG). OMSG is 70 this year, and after a 3-year hibernation has been enthusiastically relaunched, whetting our appetites for a January 2020 edition themed 'Movement'.

We are pleased to include Professor John Stein's thoughtprovoking article on Developmental Dyslexia. We remember our friends, colleagues and teachers who have passed away, and welcome your contributions for future editions of Oxford Medicine.

I should like to take the opportunity to thank Ellysia Graymore who worked as OMA Relations Manager for a number of years, and welcome Nicki Choules-Rowe and Colleen Devine. They took over in the OMA office in autumn with calm efficiency and good humour, and I very much look forward to working with them.



Advances in Oxford Medicine over 45 Years -Reflections from the Regius



Professor Sir John Bell GBE FRS, Office of the Regius Professor of Medicine, University of Oxford

I arrived in Oxford in October 1975. The week I arrived, the weather was unseasonably cold, they hadn't yet turned on the heating in the Radcliffe Science Library, so I found myself doing my initial studies with coat and gloves on, and my first purchase was a warm duvet to prevent me suffering through the winter in an extremely draughty room at Magdalen College. I remember thinking to myself that I wouldn't be sticking around for long. Now, forty-five

years later, I am still very much here, and have had the benefit of tracking Oxford Medicine through a remarkable era of change that has paralleled the exciting developments that have gone on in medical sciences more globally. The Medical School, according to the *Times Higher* Global Rankings is number 1 in the world for the ninth year in succession, and Oxford Medicine saw a Nobel Prize awarded to Sir Peter Ratcliffe this year. It is hard to imagine how much things have changed in Oxford from that rather sleepy, dreary period in late 1975.

The developments and advances in medicine in Oxford have very much tracked the exciting achievements of global biomedical science over the same 45-year time-frame. Male life expectancy has been extended by ten years and female life expectancy by nine. Cardiovascular mortality has fallen by 70%, we have exciting and effective new drugs for the major inflammatory diseases such as rheumatoid arthritis, inflammatory bowel diseases and multiple sclerosis, we have cured or controlled the chronic viral infections such as hepatitis C and HIV, and we have now sequenced more than a million human genomes. These exciting advances have been all contributed to by Oxford biomedicine over the past.



In my early years as a medical student, the centre of biomedicine in Oxford was very much South Parks Road and the Radcliffe Infirmary. The Clinical School was sixty students, all of whom knew each other well, operating in the ramshackle wards of the old Radcliffe Infirmary, including an emergency department that had been in continuous use since 1770. The progress in medicine in those days was slow and, although there had been considerable advances in surgical practice, there were remarkably few therapeutic interventions that proved to be highly efficacious. Perhaps the most important of these were antibiotics, derived in part from the Dunn School's contribution to penicillin and the cephalosporins. There was relatively little else statins, for example, had not come into widespread use, beta blockers and diuretics were available, as were corticosteroids, but many therapeutic modalities did not exist.

Despite the relatively primitive nature of clinical practice, the Radcliffe Infirmary housed a remarkable set of individuals who undertook cutting-edge biomedical research and who were also responsible for teaching medical students. David Weatherall had been pioneering the use of genetics in medical practice in his role as the Nuffield Professor of Clinical Medicine. John Ledingham was much admired by medical students for his wise and extensive diagnostic acumen at the bedside, Peter Morris was pioneering the field of transplant surgery, and Alec Turnbull was one of the great figures in obstetrics in the UK. It was a stunning cast of characters, led by Sir Richard Doll in the Regius Chair who had contributed substantially to the creation of epidemiology as a discipline.

This work was providing some significant new insight into the fundamental mechanisms of the diseases was emerging and this was likely to bear fruit over the next forty years. The Hospital moved up the hill to the John Radcliffe in 1979. There was a state-of-the-art modern clinical facility at the John Radcliffe Hospital that was a new home for Oxford Medicine and slowly, but steadily, the centre of gravity for biomedical research migrated with it. David Weatherall established the Institute of Molecular Medicine in 1988 and, ultimately, with the creation of the new campus at the Churchill site, there are now several thousand biomedical research scientists occupying a wide range of different research institutes that are as strong scientifically as most of our global competitors.

As the medical research portfolio in Oxford expanded, so did the Medical School. There was an opportunity to significantly expand student numbers which grew, first to 110 and then to 140. A graduate entry course was introduced and the School continued to attract the best and the brightest of students. As the Medical School expanded, the NHS also changed significantly to deal



with a set of new opportunities and a significant change in the patient population. As the demography shifted, so did the pattern of disease and the acute service began to be dominated by individuals with multimorbidity in later life. Pressure on the front door of the John Radcliffe and bed occupancy put the Hospital under significant strain, but it remained one of the strongest and most successful teaching hospitals in the country.

The Hospital Trust acquired the name Oxford University Hospital Trust and the mental health unit at the Warneford became Oxford Health. New sources of funding for biomedical research flowed both into the Hospital and into the Medical School. With the creation of the National Institutes of Health Research (NIHR) and its Biomedical Research Centre, funding translational research expanded, while the Wellcome Trust and the Medical Research Council continued to significantly increase their funding footprint in Oxford.

One of the great successes of Oxford Medicine over this period has been to address many of the challenges of health on a global scale. In the 1970s, David Weatherall and David Warrell had set up a Wellcome funded unit in Thailand which was subsequently taken over and led by Nick White for the next thirty years. Pioneering work was done here on artemisinin, the Chinese herbal medicine for malaria, as well as research into a wide range of other infectious diseases. Jeremy Farrar led a unit in Vietnam, and Kevin Marsh established and developed the unit in Kilifi in Kenya. This tropical network remains an enormous strength of Oxford Medicine.

Elsewhere, the contributions to medical science were being delivered by Oxford scientists. The Clinical Trials Service Unit, led by Peter Sleight, Richard Peto and Rory Collins, made major contributions to largescale trials and created much of the evidence that cholesterol-lowering statins could have a profound effect on long-term cardiovascular risk. Andrew McMichael and the Immunology Group in the Institute of Molecular Medicine created one of the strongest



human immunology programmes in the world. Alain Townsend was the first to describe the mechanism of antigen presentation to T-cells on MHC molecules on the cell surface. Peter Ratcliffe discovered the molecular basis of hypoxic sensing, and Kim Nasmyth discovered the role of cohesion in cell division.

Oxford has also come to have a crucial role in the development of many of the national assets in biomedical science around the UK. The Biobank UK project was led by Rory Collins from here, Genomics England had its origins here in the study led by Peter Donnelly, Gil McVean and Jenny Taylor, and Oxford has had a defining role in ensuring the success of the Diamond Synchrotron in Harwell which has underpinned structural biology in the UK for many years.

As the Medical School in Oxford has expanded and developed, it now looks unrecognisable from how it appeared in 1975. Nevertheless, the crucial ingredients of success in this scientific domain remain vested in the outstanding people who have chosen to come and make their careers here. Students, postdocs, junior and senior investigators have all worked assiduously together to solve some of the world's most challenging medical problems and it is that culture which has ensured the success of the endeavour in the past forty-five years and will also, most assuredly, guarantee its future.



Professor Sir Peter Ratcliffe FRS, In Conversation with Dr Lyn Williamson, OMA President

You have been Head of the Nuffield Department of Medicine in Oxford and are now a Nobel Prize Laureate for medicine. How did you achieve this?

Well, I certainly didn't plan it. I simply worked hard and followed opportunities when they presented.

I had a pretty classical medical education, I guess, Gonville & Caius College, Cambridge; St Bartholomew's Hospital, London, followed by the London post-graduate medical hospitals: Hammersmith, London Chest, Brompton and Queen's Square. I learned some specialist medicine there, and I think was flattered into choosing a career in renal medicine by Larry Baker at Barts, who said it was a good subject and I would be good at it. So I came up to Oxford intending to train as a nephrologist with Desmond Oliver and John Ledingham, coupled with the Nuffield Department of Medicine with David Weatherall. I stayed in Oxford, completing nephrology and general medicine training with these excellent clinicians. By the time I came to start the new molecular laboratory looking at the gene regulation by oxygen, I was already trained as a physician and nephrologist.

I have a rather charming letter from Chris Bunch that says something like 'Dear Peter, I think this will suffice for the GMC, Yours Chris'. Things were different then, and that was the extent of my accreditation. I think they were short of physicians to run the acute on-take service and I went on the acute medicine rota!

Serendipity played a part. In retrospect I was fortunate to not get the first NHS post I applied for. This went to Chris Winearls at the Renal Unit. I continued to do general medical outpatients and inpatient work on the Renal Unit, plus run the laboratory. Maybe that is why I was invited to take up the Nuffield Department of Medicine Chair. I realised it would be rather a difficult job, but I am very pleased that I was persuaded to do take on the challenge.

I enjoyed the acute medical on-take, I enjoyed the diagnostic component, I enjoyed teaching the medical students at the bedside. I didn't particularly enjoy the committees and the organisation of everything, but these are problems we all have to face in the Health Service and in truth it is not an easy thing to organise.

Nephrology in my opinion is still the most demanding clinical speciality, because it combines all the importance of pastoral care and continuing care with long-term patients with a chronic illness, punctuated by very acute



episodes requiring a quite different and rather immediate type of medical response. It very soon became apparent I could not combine the Nuffield Chair, clinical renal medicine and run a laboratory, so I reluctantly stepped aside from renal medicine. However, the extra time I had to concentrate on my laboratory work, was probably an important factor in the path to the Nobel Prize.

What advice would you give to aspiring physician scientists?

- 1. Learn from your patients and start by observing them and write case reports. It teaches you the important skill of drawing conclusions from a fixed data set that you cannot alter.
- **2.** Frame Your Tractable Question. Something that is answerable. Something that interests you
- Technical Training. You will be recommended to work in a powerful laboratory to learn technical skills. However, hold onto your own question and avoid being drawn into a crowded field of research as part of a big laboratory.
- **4.** Do not be frightened of technical barriers view these as opportunities to think laterally and do things differently.

Tell us about your Nobel Prize work

This has taken more than 30 years and been a story of perseverance, curiosity, and serendipity rather than genius. There have been many disappointments and at times it has felt like Darwinian evolution – trial and error, and mostly error. I set out to study the renal response to hypoxia. I was lucky enough that John Bell and David Weatherall gave me space in their laboratories to work on hypoxia, rather than HLA and genetics. My first four experimental pathways did not work but I have always held that it is important for scientists to derive good and honest knowledge negative or positive, independent of its potential use. This utility may or may not come later.

I initially thought that sensitivity of regulation of EPO and blood haemoglobin content must require very specialised sensors and we believed that some cells in the kidney would have this property. We were lucky enough to be able to study Frank Bunn's hepatoma cells, which were also making EPO.

My initial aim was to find the control sequences at the EPO gene locus that responded to oxygen and with Richard Jones' help in David Wetherall's institute I learnt this technology.

This experiment enabled another one: What would happen if those control sequences were introduced into another type of cell? To our astonishment they all worked in a very similar way. The implication was that this system was not private to EPO, it was a general system and it must be doing many other things, and that I guess opens the field out to cancer research, cardiovascular research, metabolic research and in the end, rather surprisingly, immunology research. All these processes are responsive to the transcription factor that worked on that control sequence identified by Gregg Savenza, one of my fellow Nobel Laureates. It became clear that HIF (Hypoxia-Inducible Factor), is a widely operative transcription factor doing many, many things. It is present in all animal cells, but not in yeast and plants. Just the metazoans. This transcription factor transduces hundreds of thousands of cellular responses that adapt cells to low oxygen.

The next question was what is the mechanism upstream of HIF? Everyone of course thought there would be a protein phosphorylation cascade, but we isolated the regulatory gene in HIF, mutated every phosphor and this made no difference at all. So clearly there was another mechanism. The breakthrough was made, or at least opened, by another of the co-laureates, William Kaelin, with the association with Von Hippel-Lindau (VHL) disease. Here we have a familial cancer syndrome where this gene is mutated. In fact, the VHL tumour suppressor is inactivated in most kidney cancers. Now Bill noticed that in those cells that some of the genes that we had found that were regulated by oxygen were constitutively up-regulated. We followed that up with a demonstration that VHL and HIF actually physically interact through one of those regulatory domains that we found. Both of us independently pursued this and published back to back, that the regulatory modification was prolyl hydroxylation. Just one single atom being added to the proline ring. This is distinct from the known





Oxygen sensing mechanism was present in virtually all tissues, not only in the kidney cells where EPO is normally produced

prolyl hydroxylases which were the collagen prolyl hydroxylases but that these enzymes are oxygenated. They are oxygen splitting enzymes so the path to availability of oxygen is quite direct.

The next question was; which prolyl hydroxylases did this? The collagen ones were known about but this wasn't a collagen-like sequence. We had a number of options potentially of biochemical approach but we were fortunate that Chris Schofield was in Oxford. He has been a terrific collaborator. Chris had been working on quite different types of 2-oxoglutarate oxygenase. That is a type of enzyme to which the collagen hydroxylases belong. We believed it would be a 2-oxoglutarate dependent dioxygenase that did this reaction too. Chris used the structurally informed informatic predictions and was able to suggest candidates.



HIF prolyl hydroxylases – a set of Fe(II) and 2-oxoglutarate dioxygenases that are conserved throughout the animal kingdom

One of the things that I should make clear to any young people wanting to do these things, don't be frightened of technical barriers; if you want to solve a problem you will have to bring all sorts of technologies to bear. We reluctantly followed Jonathan Hodgkin's advice to use C elegant worms as experimental models, they worked very well. It was interesting the system was present in worms. We made an anti-body to the worm HIF and therefore we were able to test some of the candidates that Chris suggested because mutants existed in C elegans worms that are not regulated by the Home Office Scientific Procedures Act, you don't need a licence, you simply order them off worm base and they are delivered to the lab without any restrictions on their use. So that's we did. We identified the hydroxylase enzyme, so that was really EPO 2 oxygen but on the way we discovered a system that does hundreds of thousands of other things to maintain oxygen homeostasis.



To use David Weatherall's phrase, 'for the sake of the students', please can you summarise in lay language for us?

We discovered how cells can sense and adapt to changing oxygen availability. We have identified molecular machinery that regulates the activity of genes in response to varying levels of oxygen – one of life's most essential adaptive processes. We have established the basis for our understanding of how oxygen levels affect cellular metabolism and physiological function. These discoveries may pave the way for promising new strategies to fight anaemia, cancer and many other diseases – but there are no promises.

What will you do next?

Joyfully carry on.

www.nobelprize.org/prizes/medicine/2019/ press-release/

Tingewick is 80!

Dr Derek Roskell

Clinical Director of Pathology and Laboratories, Consultant Pathologist & Honorary Senior Lecturer, Oxford University Hospitals NHS Trust

1989 marked the 50th anniversary of the Tingewick society and its shows. Jon Pollock, the immediately former Serenity (Director and In Charge) was performing his swansong as the chief baddie in "The Jugular Book (or Tarzan of the Apex)", the show which I took far too much pride in having written with Will McConnell, the Serenity of that year.

Jon had, between preparing for the show and actually learning some final year Medicine, researched and written the article, which has become the definitive history of the early days of Tingewick*. By 1989, when Jon was himself moving from being the face of Tingewick present to another ghost of Tingewick past, the panto was running with a format which seemed to have been settled for years. In fact, as throughout most of Tingewick's history, the memories of those of us putting on the show were very short, so we didn't really know, basing our assumptions on the one or two we had seen.

There seemed to be a lot of tradition back then. Firstly, we had to change the spelling of Tingewick every year, and not use a spelling that had been used before. That

was why our Ktynchwyke had a silent K, and why the bank was annoyed at having to re-print the cheque book. Again. Secondly Rita, the Pink Elephant, had to save the day. We made that easy for ourselves by setting the show in the jungle, but also hard as Rita at that time was a four legged, very heavy, pantomime elephant. The two operators couldn't really see out of either end so simply moving without falling off the stage or destroying the set was something of an achievement. All the characters, down to the smallest part bar the chorus, had to represent a real person from the hospital. Their name had to be recognisable, but not the real name. And funny, ideally. Jon was playing Killitwell the surgeon, who sounded and looked a lot like Mr Mike Kettlewell, surgical royalty of the time. I was Sir Gin Warden, who was meant to represent Sir John Walton, Neurologist, Warden of Green College, and newly appointed peer. This was an advance on the previous year when I'd had three small roles, most notably as a tree; a part I grew into as it suited my rather wooden acting. The keenest actors had to develop their impressions by stalking their real life characters on wards, in lectures, and anywhere they could be observed. Another rule was that there had to



be an audience participation song (this was panto, after all), and at some point in the show the action would be halted and one or two of the real consultants who were being taken off would be invited on stage to take part, either with a song or a short piece of action.

Consultants in those days were like the sixth formers at school when I was in the first year. They were of a seniority that even when well past their age I'd never feel I'd anywhere near reached. Having them up on stage singing our song, reading our lines, and following our direction in the script to custard pie each other was nothing short of awe-inspiring. Of course many of these consultants had worked in the much more close-knit Radcliffe Infirmary in the days when there was more mixing of staff and students. They were more Tingewick than the students – they had been part of it for years.

The closing song of "The Jugular Book" was a celebratory number called "Tingewick Survives", based on the similar but less medical "I will survive", made famous by Gloria Gaynor. Our version was about the dash from medical student life through the rigors and stresses of the junior doctor years, and how Tingewick would carry on through it all. The last verses were:

And ten years on, my youth has gone, I'll be a top consultant when I'm back here at the John, With my Ktynchewyke days behind me now that I'm FRCP.,

When I come to see the panto, I'll find someone playing me....

It's no surprise, Ktynchewyke survives. For as long as there is surgery then comedy will thrive. There's been fifty years of fun, so come again for fifty one.

Ktynchewyke survives, Ktynchewyke survives.... Being a pathologist I was heading for FRCPath not FRCP, but ten years on I came to see the panto and sure enough, there was someone playing me. I hadn't quite achieved the "top consultant" mark but I had made it back and Tingewick was not only surviving, it was thriving. Of course I knew that already as I had watched it evolve through all the shows in the intervening decade, and in terms of appearing as a character I'd stacked the odds somewhat by taking on running the student pathology course, and delivering the largest share of the lectures, practical classes and tutorials myself. "Little Rascall" was played by Alex Pitcher, a medical student far more talented than I had ever been, who went on to be the next year's Serenity and ultimately a consultant senior member whose support for Tingewick continues.

The ten years between the 50th anniversary and the 60th in 1999 had seen an increasing professionalisation of the show. For 1992 the new student senior role of Incorruptibility was created to look after fund raising and budgets, leaving Versatility to focus on producing the show. More fund raising meant bigger budgets, and the team's creativity now had outlets in more complex lighting and sound systems, and video. Over the decade the core supporting team had grown, with a larger "Tingewick Firm" providing a greater resource to share the various production tasks so that the need for cast and crew to double up in the band, choreography or set construction became much less. Sections of the shows starting around the late nineties were so polished and well produced that they would have fitted in fine in the West End, and I can remember coming home from some thinking just how much better they were than what I'd seen locally in professional productions. I don't think that was just because Tingewick was now making a lot of money from the bar. Some of the stars of this era left medicine for professional careers in theatre or the media. Others should have done but didn't. Perhaps the





turn of the millennium also brought some push factors which made the creative students look to futures outside of medicine. A few years ago I met Iain Dodgeon and some of his Tingewick firm from 1999. I knew them particularly well as we had collaborated in arranging the 60th anniversary dinner and cabaret for old members. Iain was working in broadcasting, Will Wraight, Versatility, had become a barrister, and it seemed almost all of the firm had left medicine one way or another. I wondered whether Tingewick had contributed to their departure, perhaps through frustration because a few years after that the towel was finally thrown in on finding an unused spelling. Tingewick would be called Tingewick, and the creative teams would breathe a big sigh of relief.

Another change was that the gradual increase in size of the medical school, combined with Tingewick becoming

a must-do bonding experience for the new, year 4 (first year clinical) students, led to there being very little room for other year groups on stage. It was no longer a case of seeing the same faces on stage for three years, Tingewick was a show for the freshers. The tradition became that the year 5 Tingewick firm ran the show behind the scenes, the year 4s performed the show, and only the ex-serenity represented year 6. With a few exceptions, that is the way things have remained.

For many years Tingewick had benefited from Oxford being one of the smallest medical schools. It wasn't just that there were not many students in each year group. The medical world they worked in within Oxford had also been quite small, so many of the senior staff were well known to the students. In the early 90s all the Oxford pathologists would have fitted around a couple of medium sized canteen tables, (and most of them did,



every day, at 12:00 precisely). By the year 2000 the Oxford hospitals had started to grow at pace. There was a new enlarged mortuary, though thankfully the subset of pathologists that were still talking to each other still chose to eat in the canteen. When I arrived in 1988 the John Radcliffe had seemed a clean, white-tiled beacon of hope on its suburban hill, surrounded by spacious green parkland where a scattering of cars roamed free. With the new millennium it was on its way towards the ill-coordinated, jumbled heaps of dirty concrete and plastic mess we see today, looming over its clouds of fuming motorists in the gridlocked traffic. Across the hospitals there were busy new consultants, sometimes in new specialties, and new buildings to get lost in. Much less was seen of academic consultants, whose rigorous funding settlements meant they now had to spend more time in the labs supervising their future Nobel prizes. The pressures of space, workload and targets on those left on the front lines increasingly meant that most consultants had to focus on their work rather than providing students with material for Tingewick. As a result, impressions of eccentric consultants gradually became less important to the shows, and the student talents were displayed in other ways, sometimes very literally in the form of the newly traditional erotic dance routine.

In 2003 I went along to the Tingewick show and came home having interviewed on the stage one of the biggest Hollywood film stars of the last 16 years, and with a signed photo, of me. This was Prassana's Tingewick. Prasanna Puwanarajah, the Serenity of 2003, is a big enough professional actor and director now that if you start typing his name into Google it auto-fills after the first few letters. His Tingewick was Derek Rotter and the Philosophical Stoma. It was a big surprise for me when the posters went up and I saw a photo of me as Harry Potter in a clever mock-up of the original with characters and buildings replaced with their hospital counterparts. But it wasn't Prasanna who signed my poster. The really big surprise was Emma Watson, coming along to watch the students do a Tingewick parody of the films that were making her famous. Emma was in her mid-teens and I think shooting the third Potter film around that time. She was a local with friends in the hospital, and she very kindly agreed to sign some Harry Potter and Tingewick merchandise to help us raise money, and to be interviewed so that people knew she was there. I teased Emma by pretending I didn't know what part she played and asking if she had to just stand in the background as an extra. She was kind when I said I'd be prepared to help out if they needed someone in the next film, but the call never came and years later Voldemort was eventually defeated without the intervention of me or indeed Rita.

The Harry Potter films may have made a lot of money, but Tingewick was doing its best to catch up. Successive firms even greater efforts into fundraising so that a substantial budget was raised from events in the year running up to the show. This meant even more ambitious productions, and that all the takings from the appeals at the pantomimes would go to the charities. Tingewick had become a year-round series of events. There were, and remain, consultant gameshows, dinners, garden parties, late night "bops", the TingeAid cabaret, and all sorts of



1941 - Cinderella (or There's Many a Slipper) © Oxford Medical Association sponsored events. Some of these became the main opportunity for involving consultants in Tingewick. Direct participation by consultants in the main show had faded along with the audience participation song. In the less intimate environment the

teaching hospitals in Oxford had become, dragging consultants who'd been kind enough to come along to the show up on stage and getting them to take part wasn't always welcome. Some loved it, of course, but it seemed not all of them were desperate to perform. Over the years fewer staff were seen at the pantomime. Either consultant attendance at the show dwindled. or the consultants attending made themselves inconspicuous enough not to be

noticed, or perhaps

they were there and eager but the students simply didn't know who they were. There was, however, considerable willing consultant participation in some of the fund raising special events, and Tingewick remained an important part of the medical school identity. One year a number of us took part in a consultant only "The Weakest Link", with the final two surprisingly nerdy and highly competitive consultants reverting to "rock paper scissors" to bring the event to a close after correctly answering all the questions till the quiz master ran out. It was all very much in the collegiate spirit of Tingewick.

Over the last decade the extraordinary talents of the students have continued to shine through, and their efforts have resulted in some spectacularly good shows. At the core of Tingewick the pantomime remains. On four nights in late November or early December, Rita is still saving the day. The threat to the poor old hospital folk, wherever they have been transported, is as likely to come from a politician or fictional evil character as it is from a surgeon. There are video clips, dramatic stage effects, and a professional-sounding band. Donations come via the Tingewick Charitable Trust, attract Gift Aid, and can be made electronically on a phone. The cast and crew are now up to 150 people, spilling out from Tingewick hall into the adjacent lecture theatres. Tingewick is a huge event in every sense. Creating and coordinating these shows is a massive endeavour. Audiences are showing their appreciation by donating thousands of pounds to the chosen charities, with typical takings for the season passing £20,000.



The pantomimes are the crowning event of a year of full-on fund raising by the dedicated student team known as the Tingewick Firm. Eighty years on, the world they work in to achieve this is far removed from the one in which Tingewick was born back in 1939. It requires more attention to health and safety, licensing and libel than ever before. This year's TingeAid was saved on the day of the first performance by one of the team sitting the exam for a food hygiene level 3 certificate. As raucous as it may appear, Tingewick has to be anything but chaotic. Student doctors are now expected to meet GMC's standards of behaviour, so mishaps might have serious consequences.

Through all this Tingewick not only survives, it is still recognisably Tingewick. Like all survivors, history shows us that it has always evolved. Tingewick tells the story of its time. The way that story is told moves on with the passing years, steered by each new Serenity, Versatility and Incorruptibility, their teams taking on the challenge of getting a hundred and fifty students working together to create a show, so that Rita, the pink pantomime elephant, can save the day.

*To read Jonathan Pollock's article and other features visit the new online Tingewick Archive at www. medsci.ox.ac.uk/get-involved/alumni/thetingewick-archive



Does Developmental Dyslexia Really Exist?

Professor John Stein FMedSci

In 1896 a country GP, W. Pringle Morgan, reported in the BMJ the first case of 'congenital word blindness' and outlined the 3 main features which are still used today to diagnose what we would now call 'developmental dyslexia', namely unexpectedly backward reading in a boy whose oral intelligence was high and who had a strong family history of normal intelligence yet strikingly poor reading ability.

The view that this was a genetically based neurodevelopmental disorder, selectively impairing the visual perception of letters and words, lasted well into the 1970s when the 'phonological' theory was introduced. This postulates that dyslexia is due to children failing to acquire the skill of translating letters into the sounds they stand for. So, in 1996 the BMJ commemorated the centenary of Morgan's seminal report by asserting that dyslexia is not a visual, but a verbal, disorder. Nevertheless, there are still many who believe that a visual impairment has an important part to play in its aetiology.

The main problem with the phonological theory is that the very essence of reading is translating letters into sounds, so that the theory says very little more than that dyslexics find it difficult to learn to read; hence it has little explanatory power and is almost a tautology. But if we are to help these children we need to understand the neural mechanisms that cause their difficulties with acquiring letter/sound translation skills.

And this understanding is sorely needed. Nearly a third of all UK and US 18-yr-olds leave school unable to read better than an eleven-year old. This leaves them tragically ill equipped to cope with modern life and it costs us all dearly. KPMG recently estimated that low literacy costs the UK about ± 2.5 billion per annum, because of mistakes made, the retraining required, together with the knock-on effects of so many lifetimes of unemployment, poverty, stress, anxiety & depression, long term mental ill health and also the frustration, anger with Society, hence antisocial behaviour, violence and crime.

Nobody claims that all literacy failure is due to developmental dyslexia however; probably only about

1/3rdof poor readers, i.e. 10% of all school leavers, are dyslexic. The other 2/3rds fail due to a combination of low general ability and adverse social factors such as family dysfunction, lack of parental support and poor schooling. These can indeed be often ameliorated by improved teaching of phonics in particular, but without proper understanding of the neural basis of dyslexia, the remaining dyslexic third are not helped much by drumming phonics into them.

The phonological theory may actually have harmed some true dyslexics, by making it difficult, if not impossible, to distinguish them from other poor readers. This is because by definition all poor readers fail to acquire the phonological skills necessary for reading; after all these are an essential part of reading, whatever the causes. But if we postulate that dyslexia is due to failure to acquire these phonological skills, observing their lack will not distinguish dyslexics from any other causes of reading failure. This argument has even been taken to the extreme claim that either all poor readers are dyslexic, or none are; therefore, dyslexia may not exist at all!

Obviously if we wish to help dyslexics to overcome their problems, we will need to gain understanding of the fundamental neural mechanisms causing them. The basic requirement for reading is the ability to sequence rapidly and reliably the letters in a written word and to sequence its separate sounds in its spoken form. This skill depends on 'temporal processing'. Visually this means accurately timing & memorising the moment when we shift our eyes or attention to look at the 'D' in DOG, then when we look at the 'O' and so on, in order to sequence the letters in the right order. Likewise, we need to time when we hear the 'duh', then the 'o', in order to memorise their sounds in the right order.

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This neural timing function is mediated by specialised sets of 'magnocellular' neurones in both the visual and auditory domains. Their large size means that they can respond and relay timing signals very rapidly and reliably, but it also makes them very vulnerable during development and to malnutrition, drugs and diseases. My colleagues and I have gathered (we feel!) a very persuasive body of genetic, pathological, imaging, electrophysiological, psychophysical and behavioural evidence that shows that dyslexics tend to have impaired development of these magnocellular temporal processing systems. This is probably the weakness that underlies all their sequencing difficulties - not only with the visual and auditory requirements of reading, but also with the plethora of other sequencing abnormalities which characterise the dyslexic syndrome, such as difficulty remembering the order of letters in the alphabet, the days in the week, months in the year, remembering telephone numbers, learning multiplication tables and even tying shoelaces! Also, poor sequencing ability seems to generalise into more abstract areas; thus, dyslexics are notoriously bad time keepers, seldom punctual and often put effects before causes in arguments, speech and essays.

The viewpoint I am putting forward is not without its critics of course; everybody defends their most cherished ideas. Although some of my colleagues maintain that the magnocellular theory of dyslexia is now thoroughly 'proven', I hesitate to claim that, because theories are never proven. They're only true until the next theory explains more; they're always provisional and incomplete. Even the phonological theory is correct insofar as it goes, but it is incomplete. However, one of the strengths of the magnocellular theory is that it leads to principled treatments that have been shown to help dyslexics learn to compensate for the disadvantages of their differently developed brains and to profit from their advantages.

We and many others have shown that it is possible to train the visual magnocellular system in dyslexics to improve its functioning. The most direct way to do this is to view a moving pattern and adaptively decrease its contrast, so that the subject can only detect the motion on only a proportion of the trials. Gradually his motion sensitivity will increase. But this takes time and motivation. A simpler way is to view text through yellow filters. Yellow light stimulates only the red and the green cones in the retina. Since magnocellular ganglion cells receive most of their input from these cones, these cells are selectively facilitated by yellow, and we have shown that this often enables children to see text more clearly, and this helps their reading.



Blue filters can often help a different set of dyslexic readers probably by selectively activating the recently discovered 'melanopsin-containing' retinal ganglion cells. These are especially sensitive to blue light and project to the suprachiasmatic body clock in the hypothalamus, in order to synchronise it with seasonally varying day length. They therefore stimulate arousal earlier in summer and later in winter, particularly facilitating the magnocellular pathways. Thus, increasing their activation with blue filters can often help this set of poor readers to improve their reading. At the same time, it can not only do this, but it can also improve their sleep patterns. Serendipitously we discovered that in addition it can greatly reduce their tendency to suffer headaches when attempting to read.

The long chain polyunsaturated omega 3 fatty acid, docosahexaenoic acid (DHA), is an essential component of excitable cell membranes. The large surface area of magnocellular neurones means that they are particularly vulnerable to lack of this crucial molecule. Since we cannot synthesise omega 3s ourselves, most DHA is derived from eating oily fish. But modern tastes have dropped fish consumption drastically; 75% of young people now eat no oily fish at all. Hence, we found in a randomised control trial (RCT) that, remarkably, simply adding fish oil capsules to children's diets, with no attention to reading as such, can greatly improve their magnocellular function and help their reading progress.

A large proportion of prisoners in jail are dyslexic, and the magnocellular systems are probably involved in other kinds of sequencing for social communication as well as reading. We reasoned therefore that omega 3 supplements might also help young offenders to control their impulsive antisocial activities. We ran an RCT in young offenders and indeed found that giving them supplements of omega 3s, with no other psychological or social support, decreased their violent behaviour in prison by nearly 40% compared with those receiving the placebo.

Clearly these genetically based impairments in the development of magnocellular systems are highly detrimental for modern human living. So why hasn't natural selection removed these alleles? Their high prevalence implies that despite the dangers of lowered visual motion sensitivity (e.g. for detecting the stealthy approach of a sabre-toothed tiger), there might be some compensating advantages that set up a balanced polymorphism and this may have protected our dyslexia alleles during our evolution. A much higher than average proportion of artists, architects, engineers, computer systems analysts and entrepreneurs are dyslexic. Partly this may be accounted for by the relatively low amount of reading required in those professions, but accumulating evidence suggests that many dyslexics have inherently superior talents, obviously not for linear sequential analysis, but for 'holistic' visualisation of whole patterns, which gives them the edge to succeed better in these professions. Probably, during development, the vacant space left by fewer, smaller magnocellular neurones enabled other kinds of neurones, specialised for static rather than temporal comparisons, to multiply during the competition for connections that occurs during early development in infancy and in puberty, and this provides dyslexics with their superior holistic talents.

In summary, dyslexia does exist as a neurological syndrome; it is distinguishable from other causes of reading disability by its causation via genetically based impaired development of visual and auditory timing systems in the brain. These compromise the ability to acquire the visual and auditory sequencing skills that are required for reading. Dyslexia can therefore be diagnosed using a variety of magnocellular tests and M- cell functioning can be assisted by relatively simple techniques, such as viewing the text through yellow or blue filters and/or consuming more DHA than is usual in the modern Western diet. Developmental compensation for M-weakness may explain dyslexics' exceptional holistic talents.

Professor JF Stein FMedSci

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Support the Dyslexia Research Trust www.dyslexic.org.uk And the Institute for Food, Brain & Behaviour www.ifbb.org.uk

Obituaries

Nigel Terence James (1940 – 2019)



In the 'good old days' preclinical undergraduates were able to take Schools Physiology in their third year followed by a 2 term course in pharmacology, pathology and bacteriology before entering a clinical course which usually meant a London Medical School. A few of us opted to do the 2 term course first which gave us 4 terms for Schools. Even

fewer, just 3 of us, then stayed in Oxford for clinical studies and were joined by 3 from Cambridge, 1 from London, 1 from Leeds and 1 from Germany. One of those from Cambridge was tall, elegant, usually very well-dressed with a bow-tie, and able to beat all of us at croquet on the Osler House lawn – now Green Templeton College. Nigel became a member of Pembroke College when he matriculated on his move from Cambridge. As I was also a Pembrokian I got to know him well and had the pleasure of meeting up with him over subsequent years at Alumnus events. He was a life member of the Oxford Medical Alumni.

Nigel Terence James was born in Port Talbot on the 16th December 1940 to Idris and Elizabeth. Idris, a sanitary inspector, was Welsh speaking and very much Chapel whereas Elizabeth was an Anglophile. Nigel was brought up English speaking, much to his regret in later life, but remained staunchly Welsh especially when teased in the bar! Following school in Newport he entered Queens' College Cambridge to read Natural Sciences. He joined the Oxford Clinical School in September 1963 and qualified in 1966. However, his real interest lay in pre-clinical sciences especially anatomy and so he did not apply for house jobs but was appointed lecturer in anatomy in Sheffield in the department of Professor Robert Barer. His major interests centred around the histology and biochemistry of muscle fibres but he developed a strong interest in statistics and obtained an MSc in statistics from Sheffield in 1988. This allowed him to extend his contribution to stereological measurements of histological specimens. As a result of his publications and his popularity as a lecturer and teacher he was appointed senior lecturer in the University of Sheffield a post he held until rheumatoid arthritis enforced early retirement in 1997.

Nigel had many interests outside medical sciences. He was a keen historian especially in Egyptology and learnt Arabic. He became a guide in Sheffield Cathedral in 2010 where his knowledge of history of the Church must have been invaluable. He also had strong interests in politics and stood as a UKIP candidate. Sadly, his retirement was dogged by ill health not just the arthritis but a renal cancer and a pulmonary embolus. He felt his rheumatoid arthritis was greatly benefitted while on visits to Egypt and it was on a visit to Luxor in April 2019 that he suffered a heart attack which proved fatal. We have all lost a good friend, a great raconteur, and an able scientist. He is survived by Virge, who he met in the Oxford Clinical School in 1964 and subsequently married in 1968. She provided enormous support to Nigel throughout his career and especially over the latter years of ill-health.

> Derek Jewell Professor Emeritus of Gastroenterology, Emeritus Fellow Green Templeton College, University of Oxford



Kevin Gatter (1951 – 2019)

St John's College was sad to announce the death of Professor Kevin Gatter, Emeritus Fellow, on 22 June 2019. Professor Gatter was elected to a Fellowship in 1989 and to an Emeritus Fellowship in 2013, following his retirement. Professor Gatter was Head of the Department of Cellular Science and led it through mergers with Clinical Biochemistry and the Nuffield Department of Pathology to create NDCLS, now a Division within the Radcliffe Department of Medicine.

Professor Gatter was clinically active throughout his career and was an internationally recognised expert in haematopathology. He made seminal research contributions to the development of immunohistochemistry and to the classification of lymphomas, later pursuing an interest in angiogenesis.

He was recognised by ISI Thompson Scientific as one of the most highly cited and influential researchers in his field.

St John's College



Absent Friends - Dr Malcolm Gellan (1954-1991). A personal remembrance.

The Oxford Medical Alumni 40-year reunion invitation landed in my in box over 6 months before the event was scheduled. I was in two minds about attending but was reminded of the comedian Tim Vine's one liner "I've just been on the holiday of a lifetime; I won't do that again." There was only one chance to be at my 40-year reunion, and after discussions with my wife, we arranged our schedule accordingly. After all, as I reminded her, I had been at her 30-year reunion in Brisbane.

As it turned out the 40-year reunion was a pleasure; the visit to the laboratories in the afternoon and the Dinner at Balliol in the evening were an excellent way to catch up with the great, the good, and those of us who did the work in general practice! Don't miss out, you won't be able to "do that again".

Yet my overall memory was tingewicked with the memory of those not present, no longer with us; *absent friends*. In particular, I remembered with sadness our absent friend and colleague Dr Malcolm C A Gellan, who passed away in 1991 from complications of HIV.

Many of you will remember Malcolm as a friend and colleague at Oxford Medical School. He was in particular involved in Tingewick and always a gentle soul. I was privileged to know him for 6 years, firstly at Sidney Sussex College, Cambridge (1973-1976) where we were fellow pre-clinical medical students. We both learned to row in the college medics boat. We also both moved to St. John's College, Oxford (1976-1979) for our clinical studies, where by coincidence we had adjacent rooms in a college house. I remember with fondness that in the run up to finals we would often give up revising to retire to the college bar! It did neither of us any harm as we both passed finals, and he went on, I am told, to become the youngest Medical Consultant in Britain. He worked in Genitourinary medicine at St. Thomas' and did research into HIV.

Many of you shared your happy memories of Malcolm with me at the reunion; in particular, thanks to Lesley and Kevin who were colleagues in the same year. They reminded me that they married as students and their student elective was their *honeymoon*. They remember it with fondness, not least because they shared it with Malcolm as he was on the same foreign attachment!

There was no real concept of *coming out* in the 1970's and while some of my fellow students suspected, others, including myself, were never really aware because it was not an issue. We were all one breed; medical students together. A bond forged on our first day in the anatomy dissecting room.

In recent years his sister in law, Andrea Gellan, has commented that for years at family events "his death was always the elephant in the room" and that only recently have the family been able to discuss his passing. She has subsequently been involved in sponsored marathon runs in his memory, raising thousands for pounds for HIV research.

So, to all who were at the reunion and especially to our *absent friends* – thank you for the memory. And Malcolm, I can confirm that far from being forgotten, you are remembered by all with fondness.

I took this picture of Malcom Gellan in June 1976 on the roof of Sidney Sussex College, Cambridge. You might think that access is not allowed, but I could not possibly comment!

Dr Tim Goode



Tamara Madej (1954 – 2015)

Tamara Madej (Pomeroy) trained as an anaesthetist in Leeds. She had been as a clinical student at the Radcliffe Infirmary in Oxford from 1976 to 1979, one of only a few women on the course. It was here that Tamara discovered her love of anaesthetics. She was a keen and hardworking student but also enjoyed life with dancing, music, cooking, and expeditions. She spent an interesting elective in Bangkok and Chiang Mai. During her specialty training she spent a year in Calgary, Canada, and was a lecturer at the Leeds academic unit. She took up her consultant post in York in 1988. She always achieved more in a day than most people think possible, often visiting the market before work, providing support and leadership at work, sitting on national committees, and attending the York Medical Society in the evening.

When Tamara had a good idea she made it happen, often ahead of her time. In 1989 she was instrumental in setting up the UK's first acute pain service, in York. She moved the community dental general anaesthetic service into the hospital, improving safety but overcoming huge obstacles on the way. She established a trust mentoring scheme—again before most doctors knew what the word meant—and kept a log book throughout her career, which is how we know that she performed more than 30 000 anaesthetics in York. She published widely on pain, obstetric anaesthesia, and postoperative nausea and vomiting.

Tamara's energy was also felt nationally. In 1995 she organised the annual meeting of the Obstetric Anaesthetists' Association (OAA) and was an OAA committee member between 1994 and 2000, the last three years as honorary secretary. Between 2001 and 2005 she sat on the standing medical advisory committee and a joint committee for the Royal College of Anaesthetists and Royal College of Obstetricians and Gynaecologists. Throughout her career she maintained her links with Leeds medical school.

Towards retirement Tamara was keen to be involved in charity work, which she planned to continue during retirement. She spent periods of time in Zambia and Uganda, providing a mix of education and anaesthesia, and also in Sierra Leone on the Mercy Ships. As part of the Association of Anaesthetists of Great Britain and Ireland's Safer Anaesthesia from Education initiative, she went to Colombia to teach an obstetric anaesthesia course and hoped to expand on this with her increased time. These plans were sadly curtailed when she became ill less than five months into retirement. Doctors, midwives, nurses, and operating department practitioners all miss her zest for life and the whirlwind experience of meeting Tamara in the corridor.

She leaves her husband, Stuart, and two daughters, of whom she was very proud: Hannah, a dentist, and Krysy, a maths teacher.

BMJ 2016;352:i1060

Dr John Iles (1946 - 2019)



John was born in London and grew up in Sussex. He applied to London medical schools at the tender age of 15 but was told to come back when he was older. Instead, he opted for a scientific career and came up to Merton College, Oxford in 1965 as a Postmaster (scholar) in 1965 to read Zoology, graduating with first class honours in 1968.

With a grant from the Medical Research Council he moved to the Physiology Department to work towards a DPhil (under the supervision of Denis Noble then Julian Jack) which he gained in 1972 after submitting a thesis on aspects of the nervous system of the cockroach with emphasis on motor control. He was to remain in Physiology until 1978, first as an IBM Fellow then as a Beit Memorial Fellow. By now his work was extending up the animal kingdom to mammals.

During these early post-graduate years, he was a Senior Scholar at Merton, then held Junior Research Fellowships at St John's and Corpus Christi.

In 1979 he moved back to the Zoology Department upon appointment to a University Lectureship in Zoology and joined St Hugh's College as Mary Snow Fellow in Zoology and Tutor in Zoology. He was to remain a Fellow at St Hugh's (Emeritus Fellow after his retirement in 2014) for the rest of his life. Towards the end of his career he was made Reader in Zoology.

He played a very full part in College life, taking on over the years a number of College offices, including Senior Tutor, acting Bursar, Custos Hortulorum (Garden Fellow), Wine Fellow Vice-Principal for Development and acting Principal.

He was a skilled and enthusiastic teacher of both Zoology undergraduates and medical students, and also taught on the MSc in Neurosciences. He lectured in both the Zoology and Physiology Departments and tutored zoologists and medical students from several colleges. As a college tutor he showed a deep concern for his students, who have very warm memories of his teaching and his concern for them. From his earliest research days, he was fascinated by locomotion and his lifelong research focused on the motor nervous system of mammals, using mammals, including humans, as subjects. Spinal reflexes and the motor cortex were his areas of interest. His human subjects included stroke patients and also spinal injury patients from Stoke Mandeville Hospital. Students also volunteered as subjects over the years, and he was also prone to experiment on himself. Rather than setting up a research group he preferred to work alone alongside DPhil students and with undergraduates for their projects.

One of his last publications (2007) was entitled 'Human standing and walking: comparison of effects of stimulation of the vestibular system'.

He served the University as Senior Proctor from 1992-93, and was instrumental in the creation of University ID cards and for laying down regulations governing the conduct of undergraduates as they emerged from the Examination Schools. He chaired the University Safety committee for several years and sat on the Conference of Colleges.

In 1971 he married Susan, a fellow Zoology undergraduate who went on to read Medicine. They would have been married for 50 years in 2021. They had two sons and a daughter, and there are now four grandchildren in whom he delighted. Outside academia he was a keen gardener and plantsman, a mountain walker, a lover of music including opera, a woodworker and maker of musical instruments, an expert in wine and perhaps above all a keen cook whose dinner parties were renowned.

Tragically, while still in his sixties he was diagnosed with Lewy Body dementia which clouded his last years and physically compromised his health alongside the cognitive decline, bringing on an early death at just 72. He was buried in a woodland grave on 30th June and a celebration of his life was held at St Hugh's later that day, including dedication of the College Orchard to his memory and a tree-planting.

A University Memorial service was held on 9th November.

Susan Iles

News from Osler House

The new academic year has brought with it new faces, new events, and – of course – new academic curricula. The introduction of fourth year and second year graduate–entry medical students into the clinical school marked the beginning of term. For the first time, their initial week at the hospital was comprised of lectures reflecting a restructured syllabus, including modules on professionalism, medical ethics and BME/LGBTQ issues in medicine. Clinical examination teaching was undertaken by sixth year tutors as usual, and we hosted a variety of stethoscope–free evening activities, including a drinks reception for freshers and their medic 'parents', a formal dinner at St. Edmund's Hall, and a live jazz and cocktail evening followed by a 1920s-themed bop.

Any new beginning is always a time of transition, and therefore our focus for Michaelmas has primarily been on student welfare. We have aimed to raise the public profile of Osler House's welfare services (e.g. sexual health supplies and welfare contacts within the clinical school) using welfare packs. Delivered to every student's Osler House pigeonhole, they included welfare flyers with all the necessary information, as well as a few goodies to lift morale. We have also re-established peer support within Osler House, a peer-to-peer listening service which acts as a more casual point of contact for welfare issues. Our 18 peer supporters have undergone 36 hours of training with the University Counselling Services in order to develop their active listening and communication skills.

Of course, student welfare is underpinned by enjoyment of many different aspects of life – including a healthy attitude towards entertainment. Tingewick Firm have awed with their spectacular stamina on and off-stage: fourteen members of firm completed the Three Peaks



Challenge (climbing Ben Nevis, Scafell Pike and Snowden in under 27 hours), with another thirteen running the Oxford Half Marathon in aid of OSARCC and Aspire Oxford. Their athletic achievements were rounded off by a very professional Tingeaid performance in October, setting a high standard for this year's pantomime: 'The Goutfather: A Series of Unfortunate Never-Events'.

Academically, Osler House has both maintained old traditions and started new ones. The Oxford Medical School Gazette has been recently relaunched and is celebrating its 70th anniversary after a threeyear hiatus, with its newest issue scheduled to be published in early 2020. Meanwhile, student subject representatives have been introduced within individual specialties to promote subject-specific learning opportunities within Osler House and provide feedback on clinical teaching.

Finally, I would like to thank Alex Mafi and the former committee for all of their hard work, in addition to the current committee who are already proving their commitment to making Osler House a supportive environment for all clinical students.

> Dervla Carroll Osler House President 2019-20

The Oxford Medical School Gazette (OMSG) Revived

The Oxford Medical School Gazette (OMSG) is a biannual publication, written and designed by students at Oxford University Medical School. We publish articles focused on topics of interest, clinical and pre-clinical research, and current debates in the world of medical science. Many of the articles are written by current students, but anyone who has something that they'd love to share is very welcome to contribute.

The magazine has come a long way since its premier edition in 1947. Originally, it was a black-and-white A5 publication, but now it has flourished into a full colour, A4 magazine. Over the years, as the gazette grew, so did its audience, and our greatest challenge is to make the magazine appeal to all its subscribers: from 6th form students to Oxford alumni and beyond. Despite these challenges, the Gazette has a very successful history: it has been shortlisted for the Guardian Student Media Awards' Student Publication of the Year twice and has formed partnerships with companies including Oxford University Press and Amazon. Highlights from previous issues include the Frith Photography Prize, where the winning photographs were displayed in an exhibition held in the John Radcliffe Hospital. Our personal favourite theme of these photo competitions was 'The Oxford Handbook of Clinical Medicine', nicknamed 'the cheese and onion'. The entries were very creative, showing the Handbook in racing cars, in deserts and even underwater!

After a 3-year hiatus, OMSG was re-invigorated last year with its issue 'Revival'. This year we aim to publish two more issues of OMSG. This year, to celebrate both the 70th anniversary of the Gazette (making it the oldest medical student journal in the world!),



and its recent revival, we hosted a drinks reception at Worcester College. It was a privilege to host the speakers Professor Dame Kay Davies (Lead researcher in Duchenne Muscular Dystrophy) and Dr Zeeshan Qureshi (Author of 'The Unofficial Guide to Medicine') and inspiring to hear a bit about their work and contribution to the field of Medicine. This was a fantastic opportunity to launch the latest edition of the Gazette, which is themed 'MOVEMENT'. The 70th anniversary edition is due to be published in January 2020. In this edition you can look forward to articles on various aspects of the topic of movement (including Parkinson's disease and exercise), interviews with academics, medical crosswords, artwork, a 2019 medical news in review and so much more!

If you would like to find out more about OMSG, including the various means of contacting us, or read previous editions, please visit our website: www.omsg-online.com

> Kristy-Ann Wilson Editor-in-Chief, OMSG



Tingewick 2019 -'The Goutfather'

It doesn't feel all that long ago that Tingewick Firm 2019 had their first meeting in Harris Manchester College to confirm roles, discuss ideas and propose charities for the year ahead. Between now and then, we have run a wide variety of events for the clinical school students, including Open Mic nights, Pub Quizzes and Cheese & Wine nights with great deal of success. As well as this, some intrepid members of Firm completed the 3 Peaks Challenge by climbing Snowdon, Ben Nevis and Scafell Pike over a single weekend, while 18 of us ran the Oxford Half Marathon in October. These fundraising drives, with the significant addition of Tingeaid dinner and show at the end of September, were all to allow us to put on a very ambitious Tingewick 2019, the 80th annual Tingewick show.

The theme being 'The Goutfather', the stage was set with oak panelled backdrops in front of which the JR's most well known consultants formed into rival factions and attempted to orchestrate 'A Series of Unfortunate Never-Events' against one another – while all the time the strings were, of course, being pulled by the true villains, Count Olaf and Bellatrix LeStrange. Throughout October and November, the directors worked tirelessly on auditioning, casting and rehearsing a team of over 120 medical students, while production and design set about creating some ambitious props written in by the writing team, including (but not limited to) two buses, a hot air balloon, a computer on wheels, an exploding vault door and a courtroom!

The first of the f

A Series of Unfortunate Never-Events

All the hard work, however, proved to be invaluable when opening night came around. From the privileged position of the tech desk at the back of the hall, I was able to see the whole show each night. From the moment the curtains opened, the cast threw themselves into each scene, song and dance with a huge amount of enthusiasm and dedication. The live band, as always, gave a real zest to the musical numbers while the talent on show on stage was wonderful to see. As expected, the show's four nights flew past in a whirlwind of set changes and medical puns, and before we knew it was the end of Saturday night's show and the new Big 3 of Producer, Director and Treasurer were voted in. Since then, our Treasurer has been undertaking the sizeable task of totting up the money made during our year as Tingewick Firm. Even with the counting ongoing, Tingewick 2019 has made over £25 000 for our wonderful charities, Aspire and OSARCC. It has been an absolute pleasure to be part of Tingewick 2019, and I can't wait to see what Tingewick has in store for the future,

> Yours in Pink, Rob Hyder-Wilson (aka Rita Tingewick/Publicity)



80th Tingewick Anniversary Celebration

After 79 different mis-spellings of the Oxford Medical School show, 55 Tingewick alumni, including 14 past Serenities, gathered in Osler House ahead of the Saturday night performance of the 80th show, 'The Goutfather'. Surrounded by memorabilia and past posters, stories of old were swapped and contrasted with the modern format of the pantomime. Buoyed by a glass of fizz and delicious victuals, six past Serenities were invited to tell a tale from their era.

Once it was determined that he was the 'Most Senior Serenity' present, Terence Ryan reminisced of his Tingewicks of the 1950s: 'There were only 12 medical students per year, so everyone had to be involved. We were all male so we had to play the female roles. One year I did five different parts. Our music was the piano player, and that sometimes was me as well. The postshow parties often got out of hand and one year two of the group were sent down – or were they rusticated?'

Simon Smail (1969) told of the first ladies in Tingewick who could now take roles, and the moderating effect they had on the medical student behaviour.

Lyn Williamson (1978), first female Serenity, recollected the members mixed emotions over the banning of the obscene poem "Eskimo Nell" from the post-show party. This was the first Tingewick to make a profit and donate £300 to a local charity. Matthew Stead (1979), recalled the closing of the Radcliffe Infirmary, and with it the Nurses Hall where Tingewick was traditionally performed, in the weeks before his show. Somehow a space and a stage were found at the new John Radcliffe – we named it Tingewick Hall – a name which has stuck!

John Pollock (1989) had made contact with Charles Fletcher from the first show and read out his letter explaining the advent of Rita, the Pink Elephant, from the song 'Pink elephants on Parade' in Disney's Dumbo, as sung in the first Tingewick.

Abi Moore representing the lively 2011 alumni, recounted how audio-visual and computer technology have enhanced the performances in the 'modern era'.

With the growth of the medical school intake, 4th years were universally involved on and behind stage, with 5th years running it (The Tingewick Firm), and the previous year's Serenity making a cameo appearance.

Before departing for the 80th show, the gathered alumni agreed that the basic pantomime formula had withstood the test of time – there will always be goodies and baddies...and Rita will always save the day.

> David Williamson 1978 Tingewick (Writer and Actor)

The Osler Club

William Osler the *Father of Modern Medicine* died in Oxford 100 years ago. Born in Montreal he became an especially talented teacher at the bedside and the writer of the best textbook of medicine at that time. He was for five years in Pennsylvania before becoming the physician of a new team at Johns Hopkins Baltimore. In 1905 his fame was such that he was invited to be Regius Professor of Medicine in Oxford. He and his wife Grace lived in 13 Norham Gardens.

Other important persons who have lived there are Sir John Conybeare, who was born there, Sir George and Carola Pickering, Sir Richard and Joan Doll and John and Betty Walton. John Walton set up The *Friends of 13 Norham Gardens* raising funds to repair the house and eventually handing over to Terence Ryan, who as Professor of Dermatology worked with the morbid pathologist and medical historian Alasdair Robb-Smith to restore ground floor rooms with a collection of souvenirs worth viewing.

The house has been known as the Open Arms because of the thousands of visitors known to have visited the Oslers. More recently because of support from the American philanthropist John McGovern it has been named the Osler McGovern Centre and it has been open to many visitors, as can be viewed in two visitors' books.

This year five one day seminars have been held on the Oslerian theme *For Health and Wellbeing Science and Humanity are one.* We are reminded that in Cambridge CP Snow once gave a lecture saying that they were not as one. There have been many publications including

the Lancet, in July this year, arguing that science is a risk to our future much in need of humanity. Osler and McGovern both wrote in favour of science being embraced by greater humanity and for the Osler Centenary it was decided to hold five seminars to explore this theme, now reinterpreted as *Care technology must be applied with Care attitude.*

The first seminar with speakers from China and the USA as well as the UK focused on the teaching of care attitude to Asian children. Initially it was care of animals in China but it evolved to include care of the environment and then care of the frail elderly. It has been a successful project in China and recently has been taken up by Pakistan and Nepal. At this first seminar *I/CARE* was launched. I/ CARE, the academic branch of ACTAsia's Caring for Life Education(CFL) programme, will provide a digital platform for educational initiatives in collaboration with universities and industry. CFL was developed from UNESCO's Four Pillars of Education and is a foundation course in Learning to Live Together. The programme promotes compassion and kindness in Asian societies and enables children to develop emotional intelligence.

The second seminar focused on integrated medicine, meaning a combination of traditional and biomedicine, and its delivery by all branches of medicine including the large body of Community Health Workers(CHWs). There were speakers from Asia and Australia discussing Traditional Medicine's role. There was emphasis on Osler's imparting of friendship as a therapy and Oxford's Institute of Psychology's recent similar emphasis.

The third seminar took one symptom and sign as its focus. It was a comparison of the management of chronic oedema in India, Ethiopia and the UK. From India a twenty-year-old programme mentored by Terence Ryan and recently backed and quadrupled by the Bill and Melisa Gates Foundation was a key presentation followed by new work on the chronic oedema of the shoeless agricultural worker in an irritant soil affecting at least a million persons in Ethiopia.

The fourth seminar had the leading British Ethicist and President of the British Medical Association, Raanan Gillon, talking about adding the theme of fairness to the Declaration of Geneva based on a revised Hippocratic oath. It was a joint meeting with the



London Osler Club. It also referred to the friendliness of Osler and the recent publication "Friendship is the single most important factor influencing our health, well being and happiness." (Dunbar,R,I,M 2018 *The Anatomy of Friendship* Cell Press Reviews. Trends in CognitiveSciences22:32-51.) Discussants included Dr Noah Rosenberg, Andrew Markus Scholar and 2019 Lecturer, Green Templeton College, former Fellow at The Harvard School of Bioethics and recently emergency physician in Rwanda.

Lyn Williamson rheumatologist and President of Oxford Medical Alumni, added views on fairness when prescribing ultra expensive drugs, and the banning sweet drinks and snack machines in schools.

The Final Seminar was the addition of a Nursing viewpoint on all of these issues by three of the UK's top Nurses. Promoting updates in education within nursing schools: Oxford Brookes, Bournemouth, Brighton and the Foundation of Nursing Studies.

It is hoped that more of Oxfords Medical Students and Oxford's Medical Alumni will visit 13 Norham Gardens. They should note the main contributions to both Care Technology and Care Attitudes made by its former residents Conybeare, Osler, Pickering, Doll, and Walton.

On January 26th Osler's Christchurch will have relevant lectures, tours and evensong to celebrate his time with them. 13 Norham Gardens will receive the donation of a splendid new portrait of William Osler by an American artist, from the American author of *An Osler Encyclopaedia*, Charles Bryan. Donations (suggested £5 per head) will be invited on the day to cover the cost of refreshments. Please note: this is the only "charge" for this special day.

If you would like to attend this event, please send an email by Saturday 4th January to the Hon. Secretary of the Osler Club of London: Richard Osborn: richard.osborn@cheerful.com He can also be contacted by phone 07803 756088 / 020 8363 8197

Please reply early to avoid disappointment; places are limited but tickets for the lecture are still available.

Terence Ryan, Emeritus Professor of Dermatology



Oxford's Clinical Academic Graduate School 10th Anniversary Celebration

OUCAGS' 10th anniversary was celebrated recently with a special edition of the OUCAGS Forum and an inspirational guest lecture by Harvard Professor of Medicine, Dr Benjamin Ebert, who talked about the 'Origins of Discovery'.

The celebration took place on 27th September at Wolfson College, Oxford, and was an opportunity to welcome back our alumni, as well as academics and others who have supported OUCAGS over the years. Our Forum, which is a space for sharing research findings, ideas, and know-how, was enriched by having presentations by both current trainees and alumni.

The presentations and Dr Ebert's lecture were followed by a dinner, which was a unique opportunity for current trainees, alumni and other guests to meet and network.

Since 2009, OUCAGS has been promoting and advancing clinical academic careers by supporting and strengthening the clinical academic training of Oxford's Academic Foundation doctors, academic clinical fellows, clinical research fellows and clinical lecturers.

Find out more about OUCAGS: www.oucags.ox.ac.uk/about

30 Years reunion of our Clinical Medical School - 30 years. Where did the time go?

Apprehensively approaching Osler House for tea, wondering whether we might recognise anyone, we were met by cheerful alumni organisers with large smiles, and most importantly, large print name badges. Some people clearly had spent minutes studying the guest list and searching their memory about student times past, but most of us were immediately identifiable, either in looks — why does Chris O'Callaghan look exactly the same? Perhaps the NDM has found the elixir of youth?!—or mannerisms, or with their laughter (Jenny Green's wonderful sunny disposition evident straight away).

We all met up in the evening to enjoy a glass of something sparkling in the Master's Lodge at Balliol—rather splendid surroundings—and then we all went to Hall for an enjoyable three-course meal, before retreating to the bar. Time to catch up with friends and reminisce. We are grateful to Lyn Williamson for overseeing the alumni event, and she told a story that we all remembered of our first clinical lecture, when a volunteer was required for a chest examination: our pole vault star, Nigel Clarke, stepped forward to rip off his shirt. An image we all clearly remembered but had not thought of for many years.

Frances Hall then gave a fluent and wonderful speech about our year. She talked about us all meeting in our formative years with influences of our mentors-the late Professor David Weatherall, Professor John Ledingham, Professor Newsom-Davis—and we were delighted Derek Hockaday was there in person to share our event. Fellow students had come from all over the world: Mandy and Jonathan from New Zealand, Wajahat from Yale, Andrew from Port Macquarie in Australia... Andrew from Glasgow! And looking around at where people have gone, the paths they have chosen were so interesting: ranging from rural health clinics in the South Pacific. to worker bee GPs in the

UK on the ground, professorial posts at Queen Square UCL, and immunological research, to name just a few, those guiding GP federations and OOH care, working in the GMC, steering radiology as President of the Irish Radiological Society, our own ballroom dancing star oncologist, entrepreneurial dermatologists and a range of Consultant posts in various specialities...to name but a few! Some people had not managed to leave Oxford... lacking imagination geographically but who can blame them...think we were all rather jealous! I was rather impressed that Frances managed to locate one of her original workbooks from our student years, and even more impressed by her humility showing off her artistic talents putting together the muscles of the buttocks... Her reflection that we are now the influencers and the teachers in the health services was food for thought, but the seeds of our careers came 30 years ago.

What a lovely event, and we missed those that were not able to be there. Watch out for a man wearing a



floppy hat cycling from Land's End to John o'Groats at the end of April 2020; any roadside flag waving and encouragement much appreciated. Hopefully we will be able to reconnect with some of our old friends and we very much look forward to future events.

Dr Claire Johnson (née Mitchell)



Radcliffe Infirmary Commemorative Commission



The Radcliffe Infirmary closed in 2007 after continuous use as a hospital since 1770. There is nothing at the site to acknowledge it was the site of a world-renowned hospital. Artwork to commemorate all those who worked at the Radcliffe Infirmary was commissioned

last year with details appeared in last year's publication.

The good news is that we now have the funds to complete the wall plaque part of the artwork, and the artist, Alec Peever, has begun the work. There is a shortfall in funding of £18K for the column on which the words of Michael Rosen's poem "These are the Hands" will be carved. This will link the plaque and the poem and hopefully will enable people passing by to think about the many and varied roles that those working in the building undertook.

If you would like further information please contact: Xante Cummings xante1@btinternet.com or Thelma Sanders tasdelves@gmail.com

> Xante Cummings, Thelma Sanders and Dr Peggy Frith





Mayo Clinic and Oxford University Clinic open preventative private healthcare facility in London

Two of the world's leading names in healthcare and medical research—US academic medical centre Mayo Clinic and Oxford University Clinic—today opened a preventative healthcare facility in London's Harley Street district.

The new private health clinic on Portland Place, W1 will provide advanced screening and diagnostics services with personalised health plans for individual and corporate clients. The programme is based on the **executive health screening service** that Mayo Clinic has refined over 40 years and is designed for people who want to take a proactive approach to managing their health.

The clinic is the first manifestation of a joint venture designed to drive advances in medical research between the not-for-profit Mayo Clinic, the No. 1-rated hospital in the US, and Oxford University Clinic, a partnership between the University of Oxford and Oxford University Hospitals NHS Foundation Trust.

The new facility is the first example of what is expected to be a long-term collaboration between the two organisations.

The facility's core medical team, who are drawn from the UK and the US, will be salaried meaning they are not paid on the volume of patients seen or tests performed. The physicians are experts in general and preventive medicine, executive stress and burnout, sleep medicine and travel health, and will have direct access to the expertise of thousands of physicians and scientists at Mayo Clinic and Oxford University Clinic.

Dr Stephen Cassivi, medical director at Mayo Clinic Healthcare in partnership with Oxford University Clinic and vice chair of the Department of Surgery at Mayo Clinic in Rochester, Minnesota, says:

"We are delighted to partner with Oxford University Clinic to bring this premium healthcare facility to London. Together, we bring a patient-centred ethos, with the patient's needs and experience front and centre



of everything we do - whether that's a warm welcome by our front of house team, to the time and care spent with our physicians. After years of hard work, we are excited to be launching this new clinic and to be welcoming our first clients through the door. Between Mayo Clinic and Oxford University Clinic we have over 150 years of experience in healthcare delivery and medical research — indeed, Mayo Clinic has its roots in the UK, with our founding father William Worrall Mayo hailing from Salford, Greater Manchester. As a not-for-profit healthcare organisation, revenue is reinvested to further patient care, education and research. We are constantly seeking new ways to innovate and collaborate to ensure we stay at the forefront of medical treatment and care."

Getween Mayo Clinic and Oxford University Clinic we have over 150 years of experience in healthcare delivery and medical research





Dr Bruno Holthof, Chief Executive of Oxford University Hospitals NHS Foundation Trust, adds: "Mayo Clinic is widely recognised as a world leader in healthcare and so we are excited to be working with colleagues from Mayo through this transatlantic partnership.

"The new London clinic is the first step for the joint venture and is the key focus for all partners involved at this stage but we are looking forward to exploring other areas for possible collaboration in the future."

The new clinic's physicians will have ample time to dedicate to every person they see, allowing any concerns to be explored within the context of an individual's lifestyle, career, family and genetic history. Everyone who visits the facility will be guided through a series of carefully selected assessments and checks based on their own individual circumstances and utilising state of the art equipment and technology.

Clients will also have access to a suite of high quality and well-equipped amenities, such as the on-site Executive Lounge and Business Hubs and dedicated concierge staff will provide expert guidance on accommodation, restaurants, and the local area.

For more information about the new clinic and to book your appointment, please visit the website: www.mch-ouc.co.uk

Oxford Medical Association reunion Australia 2020

Oxford medics are dispersed far and wide – and none wider than the antipodes – off the end of the world and then keep going. Maybe that's why the OMA reunions are so well attended with members returning time after time. It's a chance to catch up with old friends and meet new ones; practicing medics, retired medics and future medics. Talks range from ground-breaking medical research to medical considerations of sailing around the world; the flora of Tasmania to the innovative Sydney company designing inexpensive and adaptable spectacles that can readily be used in remote island communities. It is wonderful seeing a retired Oxford professor from New Zealand chatting to an Oxford medical student from Lancaster out from England on an elective. UK-based Oxford medics regularly make the trip to Australia to attend the OMA reunion - all are very welcome.

The OMA reunion is held every two years, and all Oxford University medical graduates, past, present and future, are welcome. Previous years have been held in places such as Bowral – in the heart of farming country in NSW and the wine country of Margaret River WA.

Next year the OMA reunion will be held between the beach and bush in Noosa QLD. In the subtropical climate of Noosa, August has average temperature between 12-22 degrees, with a sea temperature of 20-22 deg. Low rainfall at that time of year means clear blue skies – perfect for water and land activities. August is peak whale migration season as they move between their feeding grounds in Antarctica and the breeding grounds off tropical north Queensland. Whales breeching are a common site all along the Queensland coast, and Noosa is ideally situated on a headland for close encounters of the Whale kind.

A welcome reception on Friday night, is a chance to unwind, sample some of the cuisine for which Noosa has become famous and perhaps learn something about the marine life of Queensland. Talks given by delegates are scheduled on Saturday and Sunday mornings, interspersed with morning tea and a buffet lunch. Saturday afternoon is a chance to explore before the evening dinner held in one of Noosa's world renown restaurants.

The conference will be held at:

Peppers Noosa Resort, Noosa Heads, Queensland from 14-16 August.

www.peppers.com.au/noosa/

Peppers Noosa Resort is an eco-resort with wonderful facilities for individuals and families situated at the end of the famous Hastings St, sandwiched between Noosa beach and Noosa National Park. It is a 30-minute drive from the Sunshine Coast Airport (direct flights from Brisbane, Melbourne and Sydney) or 2-hour drive by car or bus from Brisbane. Special accommodation rates have been negotiated for the OMA, or there is a myriad of other accommodation options in Noosa within walking distance, to suit every budget and style of visitor.

We would love to see you next year at Noosa. Please mark your diary and book your travel.

Any enquiries – please contact:

Dr Ruth Hodgson (New College 1983) hodgsonruth@gmail.com +61 432 935 939 or

Dr Kate Sinclair (Pembroke 1983) drkatesinclair@gmail.com





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Oxford Medical Alumni

Events and Reunions in 2020

May

Saturday 16 May **40th Anniversary Reunion** (1967 and 1968 clinical school intake)

June

Saturday 13 June 10th Anniversary Reunion (2010 qualification)

July

Saturday 18 July BMBCh (Exam Schools)

September

Friday 11 - Sunday 13 September Meeting Minds: Alumni Weekend Oxford

Friday 11 September **50+**th **Anniversary Reunion** (All medics who matriculated in 1960 or before, plus those who joined the clinical school in 1964 or earlier)

Saturday 12 September The Osler Lecture

Saturday 12 September **Oxford Medical Alumni Drinks Reception.** Join us after the Osler Lecture at St Luke's Chapel.

October

Date TBC 30th Anniversary Reunion

November

Saturday 14 November 20th Anniversary Reunion (2000 qualification)

2021

Reunions will take place for those who qualified in **1981**, **1991**, **2001** and **2011**. 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 suggestions or advice for the organisation of these events, please do contact us. Thank you.

Osler Club of London

26 January **Special Meeting 'Osler's Christchurch', Lecture, Evensong** Contact Richard Osborn, **richard.osborn@cheerful.com** before Saturday 4 January

Oxford Medical Lecture Club

2020 Dates

January 27, February 24, March 30, April 27

The Oxford Medical Lecture Club has been running for many years and has been welcoming fascinating speakers each month to talk about their speciality and the latest developments in clinical and

research work. Recent speakers include Professor Stephen Westaby FRCS, Professor Stephen Kennedy MA (Oxon), MD, MRCOG and Professor Margaret Esiri DM FRCPath.

The lecture is held at Osler House on the site of the John Radcliffe Hospital and occurs on the last Monday of the month. The dates of future meetings this academic year are Monday 27 January and Monday 24 February. There are no meetings in July and August.

If you are interested in receiving notifications of the meetings, please do contact OMA by phone or email.

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