QUEEN SQUARE ALUMNUS ASSOCIATION

Issue 4 December 2012

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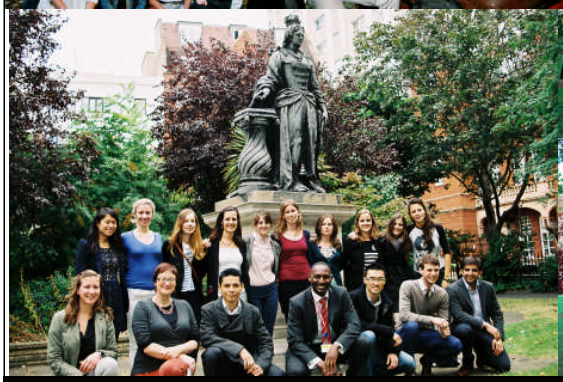

All photographs have been kindly provided by Medical Illustration, Queen Square Library and the Editors private collection.

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EDITORIAL

The Queen square Alumnus Association Meeting July 2013

I am delighted to announce that we will be holding a two day Alumnus meeting on the 8th and 9th July 2013. The meeting will incorporate lectures from alumni and current members of staff and will cover a range of sub specialities of Neurology and Neuroscience. I was delighted with the response from all those who I asked to be involved in speaking at this event and I am sure that it will be a great occasion. To those who would like to present a poster, either on their research or highlighting Neurology and Neuroscience in their country please contact me by 31st January 2013. This will be a great opportunity to meet old friends and to make new ones, and I am looking forward to seeing many of you at this event. I also hope to announce a venue for an Alumni Dinner soon, and will keep you all updated on developments. I very much hope that this meeting will be one of many, and that in future years we have more alumni speakers and an even greater range of speakers from Queen Square.

I recall sitting in my office with Dr Surat Tanprawate in September 2010 discussing our ideas for the re-invigoration of the Alumnus Association, and what our first steps would be. I am pleased that we have achieved two of our aims from our meeting two years ago, and hope that we continue to improve and offer more to our Alumni. Surat remains an inspiration for me, both professionally and personally. His sense of humour, dedication and generosity are remembered fondly by all those who knew him during his year at Queen Square.

In this edition we have news from Queen Square, along with Alumni news and recollections, details on the Alumnus Association meeting in July, travels with the Editor and photos from our archives. I am very grateful to Professor Clare Fowler who agreed to be interviewed and who provided stimulating answers to the questions posed. Our alumni interview is with Dr Andreas Moustris, who shares his recollections as a former MSc student. I am delighted to have contributions Professor Jose Puello, who has written a piece on the creation of a Cardio-Neuro-Ophthalmological Centre in the Dominican Republic, Professor Niall Quinn and Dr Ted Reynolds who have contributed to an article on Dr Kinnier Wilson, and Dr Stanley Hawkins with his article on Belfast Neurology in the 19th and 20th centuries.

I would like to thank the following people, without whom this edition of the newsletter would not have been possible; Professor Andrew Lees, Professor Simon Shorvon and Ms Louise Shepherd for their continued support and enthusiasm, Professor Clare Fowler and Dr Andreas Moustris for agreeing to be interviewed and sharing so many memories with us all, Professor Jose Puello, Professor Niall Quinn, Dr Edward Reynolds and Dr Stanley Hawkins for their articles, Miss Jean Reynolds for proof reading, Medical Illustration and the Queen Square Library for photographs used in this edition.

I hope you enjoy the Christmas edition of the Queen Square Alumnus Association Newsletter, and I hope to meet many of you in person in 2013.

David Blundred

Lifetime achievement award for Professor Thompson's MS work

Professor Alan Thompson, Dean of the Faculty of Brain Sciences, has been awarded a lifetime Honorary Membership from the European Committee for Treatment and Research in Multiple Sclerosis (ECTRIMS) at its 28th Congress in Lyon, France. This is the first time this award has been given in the 28 year history of the largest international multiple sclerosis (MS) organisation and reflects Professor Thompson's outstanding international reputation within the field of MS research and his extraordinary contributions to ECTRIMS, an organization which brings together European researchers in MS and connects MS researchers worldwide.

Professor Thompson has been crucial to the creation of ECTRIMS as a legal entity, and has established fruitful collaborations between ECTRIMS, ACTRIMS (American Committee for Treatment and Research in Multiple Sclerosis) and LACTRIMS (Latin-American Committee for Treatment and Research in Multiple Sclerosis), and between ECTRIMS and the *Multiple Sclerosis Journal*, of which he is editor-in-chief.

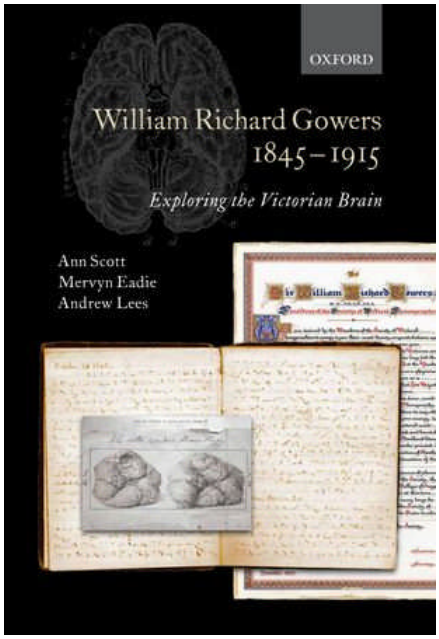
Professor Thompson's interest in MS began in the 1980s when, as a young doctor, he was struck by how little therapeutic intervention was available to confront the devastating effects of MS. In a 2009 *Lancet* article, he was quoted as saying: "MS was regarded as a hopeless, depressing condition, and of relatively low interest in neurological research. Neurologists thought that they could do nothing for patients with MS and generally just wanted them to go away. But I was intrigued, because there seemed to be so many questions remaining to be answered."

In his search for answers, Professor Thompson focussed on using structural and functional imaging techniques (MRI) to diagnose, predict disability, and evaluate patterns of recovery in demyelinating diseases such as MS. He used these MRI findings to characterize MS sub-types, particularly primary progressive MS, which affects 10-15% of people diagnosed with MS. This research helped Thompson, working together with an international group of researchers, to establish new diagnostic criteria which are now used throughout the world.

Although Professor Thompson's innovative research has broken new ground, his clinical practice has consistently informed a career that remains centred on patient experience. Together with his team at UCL's Institute of Neurology, he developed the MS Impact Scale and the MS Walking Scale, outcome measures that include the patient's feedback on an intervention's effectiveness. He also led the first studies into the effect of beta-interferon in primary and secondary MS as well as clinical trials in neurological rehabilitation, community-based treatment of relapses in MS, and developed standards of care for MS which were incorporated into the NICE guidance for MS and the National Service Framework for Long-Term Neurological Conditions. Professor Thompson now combines his commitment to patients in his regular clinic with the administrative responsibilities of Dean of one of UCL's largest faculties.

Professor Thompson admits that many unanswered questions remain: "There are still major challenges for the future in both understanding the cause and underlying pathophysiology of MS, in addition to improving treatment and care. Perhaps most importantly, given the major therapeutic advances in relapsing/remitting MS, is a focus on the poorly understood progressive forms of the condition for which there are currently no treatments." But he remains optimistic that progress can be made: "There is a real potential for the MS research groups based at Queen Square and at Barts and the London School of Medicine and Dentistry, who have joined together under the umbrella of UCL Partners to make a major contribution in this area. And I'm hopeful that the new International Collaborative on Progressive MS, which I'm leading through my role in the Multiple Sclerosis International Federation, will progress our knowledge substantially."

New Gowers' biography released



A new book chronicling the life of distinguished clinical neurologist, William Richard Gowers, has been published. William Richard Gowers (1845-1915): Exploring the Victorian Brain is co-authored by UCL Institute of Neurology's Professor Andrew Lees, Ann Scott, Gowers great granddaughter, and Mervyn Eadie, a neurologist from Brisbane.

William Gowers is arguably the greatest clinical neurologist of all time and had a distinguished career at University College Hospital and the National Hospital for Neurology and Neurosurgery, becoming a fellow of the Royal Society and being knighted by Queen Victoria. His clinical methods are still used today and his Manual of the Diseases of the Nervous System, arguably his finest achievement, is still referred to at the Hospital where it is known affectionately as the "Bible."

The book was inspired by a chance finding by Queen Square librarian, Louise Shepherd, who found a number of lost papers relating to William Gowers' time at the Hospital. This coincided with a visit to the library by Ann Scott, who was researching another book about her grandfather Sir Ernest Gowers, former Chairman of the Board of Governors at Queen Square and a distinguished civil servant. Professor Lees, in his capacity as Chairman of the Hospitals' Archives Committee, met with Ann and together with Mervyn Eadie, they embarked on the project.

Repurposed cardiac sodium channel blocker brings significant benefit for patients with a rare neuromuscular disease

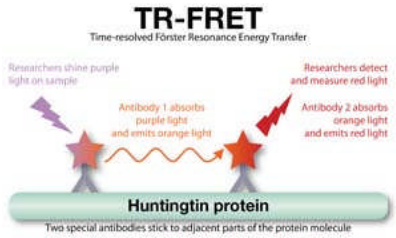
An international multi-centred trial published in the leading medical journal *JAMA (The Journal of the American Medical Association)* this week, demonstrates a significant treatment benefit using the repurposed cardiac drug, mexiletine, in a genetically stratified cohort of patients with the rare genetic neurological disorder, non-dystrophic myotonia. Professor Michael Hanna, Director of the MRC Centre for Neuromuscular Diseases led the UCL team including MRC clinical training fellow Dr Dipa Raja Rayan as the top recruiting site in this international trial.

Patients with non-dystrophic myotonia have genetic mutations that result in increased opening of the skeletal muscle voltage-gated sodium channel (NaV1.4) leading to membrane hyperexcitability and manifesting as significant clinical myotonia (stiffness from impaired muscle relaxation). The disorder is estimated to affect approximately 1 in 100,000 people causing debilitating stiffness, pain, weakness and fatigue. It can have a significant impact on patients' ability to work and quality of life, therefore finding an effective treatment is important. Mexiletine, is a class 1b anti-arrhythmic drug that acts by blocking sodium channels in the heart and skeletal muscle but has been superseded by more modern drugs for the treatment of arrhythmias.

The double-blind randomised placebo-controlled experimental medicine Phase II study was carried out in 59 genetically stratified patients at seven neuromuscular centres in four countries, the largest number of which were recruited by Professor Hanna's group in the UK. The study clearly demonstrated that mexiletine significantly reduced patient-reported symptoms of stiffness, pain, weakness and fatigue as well as electrically measured myotonia and quantitative grip myotonia in patients compared to placebo.

The study demonstrates that it is possible to perform robust phase II experimental medicine clinical trials with impact in rare diseases through leading international collaboration and effective rare disease networks.

Toxic protein build-up in blood shines light on fatal brain disease



A new light-based technique for measuring levels of the toxic protein that causes Huntington's disease (HD) has been used to demonstrate that the protein builds up gradually in blood cells. Published in the Journal of Clinical Investigation, the findings shed light on how the protein causes damage in the brain, and could be useful for monitoring the progression of HD, or testing new drugs aimed at suppressing production of the harmful protein.

The research team, led by Professor Sarah Tabrizi of the UCL Institute of Neurology, was made up of scientists from UCL, the Novartis Institutes for Biomedical Research and King's College London. They used a new, ultra-sensitive test to measure how much of the harmful protein and its normal counterpart are found in blood cells from HD patients at different stages of the disease. The test, called TR-FRET, uses pairs of antibodies that stick to huntingtin molecules to absorb and emit light of different colours. This enables very tiny amounts of huntingtin to be detected with great accuracy.

The researchers found that levels of the harmful mutant huntingtin protein built up gradually over the course of the disease, from before the patients show any symptoms onwards. HD causes the brain to shrink more rapidly than normal, as measured using MRI scans. Surprisingly, the amount of mutant protein in white blood cells corresponded to the rate of brain shrinkage. This is the first time a blood test has been able to predict brain shrinkage in a neurodegenerative disease. Levels of the normal huntingtin protein, on the other hand, stayed constant throughout the disease.

The team went on to demonstrate that small fragments of the most toxic part of the protein were slowly building up in the white blood cells - the first time this has been demonstrated in cells from human HD patients. If a similar process occurs in brain cells such as neurons, this finding may help explain how the damage gradually accumulates, eventually causing symptoms of HD.

This build-up of the mutant protein in the white blood cells of the immune system may also explain previous findings by Professor Tabrizi's team which showed that the immune system is hyperactive in HD. "Measuring levels of the mutant protein using TR-FRET is a useful new tool in the fight against HD," said Professor Tabrizi. "We can now accurately study the most toxic form of the huntingtin protein in easily obtained blood samples from real patients. The fact that mutant huntingtin levels correlate with brain atrophy tells us we're dealing with something that's relevant to the process of brain degeneration in HD."

The new technique could also be an asset for forthcoming clinical trials of 'gene silencing' drugs that aim to suppress production of the toxic protein in the brain. "Gene silencing drugs are very promising, but have significant potential for causing side effects, so we really need to know they're doing their job of lowering huntingtin levels," continued Professor Tabrizi. "This TR-FRET technique offers a way of showing that in real human samples, and we hope that it will help speed up the process of developing drugs that work to slow down this terrible disease."

Professor Lees receives prestigious German Society of Neurology award

Professor Andrew Lees has been awarded the German Society of Neurology's 2012 Dingebauer Prize for outstanding scientific attainment in the field of Parkinson's disease and Neurodegenerative Disorders. Prof Lees received the award on 27th September 2012, during the 85th congress meeting in Hamburg. The Dr. Friedrich-Wilhelm und Dr. Isolde Dingebauer Stiftung Foundation was established in 2002 by Isolde Dingebauer, after her husband, Dr. F.W. Dingebauer, died from Parkinson´s Disease in 1999. Professor Lees commented: "To receive this award from the German Society of Neurology in the city of Hamburg is an unexpected and humbling honour. German neuropathological excellence has been a great source of inspiration in my research, and the writings of Alexander and William von Humboldt were early inspirations."

Skin patch improves attention span in stroke patients

Researchers in the Department of Brain Repair and Rehabilitation have found that giving the drug rotigotine as a skin patch can improve inattention in some stroke patients.

Hemispatial neglect, a severe and common form of inattention that can be caused by brain damage following a stroke, is one of the most debilitating symptoms, frequently preventing patients from living independently. When the right side of the brain has suffered damage, the patient may have little awareness of their left-hand side and have poor memory of objects that they have seen, leaving them inattentive and forgetful. Currently there are few treatment options.

The randomised control trial took 16 patients who had suffered a stroke on the right-hand side of their brain and assessed to see whether giving the drug rotigotine improved their ability to concentrate on their left-hand side. The results showed that even with treatment for just over a week, patients who received the drug performed significantly better on attention tests than when they received the placebo treatment.

Rotigotine acts by stimulating receptors on nerve cells for dopamine, a chemical normally produced within the brain.

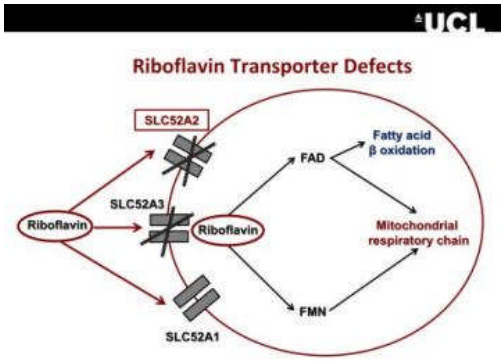
Professor Masud Husain (pictured above) who led the study at the Institute of Neurology at UCL says: "Inattention can have a devastating effect on stroke patients and their families. It impacts on all aspects of their lives. If the results of our clinical trial are replicated in further, larger studies, we will have overcome a major hurdle towards providing a new treatment for this important consequence of stroke. Milder forms of inattention occur in other brain disorders, across all ages - from ADHD (attention deficit hyperactivity disorder) to Parkinson's Disease. Our findings show that it is possible to alter attention by using a drug that acts at specific receptors in the brain, and therefore have implications for understanding the mechanisms that might cause inattention in conditions other than stroke."

Cause of Alternating Hemiplegia identified

An international consortium of scientists, led jointly by researchers at UCL's Institute of Neurology and Duke University, USA, has identified the specific genetic mutation that causes Alternating Hemiplegia, a rare neurological condition affecting an estimated one child in every million. Using the newest genetic technology, next-generation sequencing, the study published in *Nature Genetics*, showed that *de novo* mutations in the gene ATP1A3 cause the condition (*de novo* mutations are genetic mutations not present in the parents' genes).

Alternating Hemiplegia is characterised by onset in infancy or childhood of episodes of weakness of one side of the body; later in the course of the disease, both sides may be affected at the same time. The weakness typically gets better, but re-occurs in the next episode. The symptoms can vary from child to child and from day to day. For many affected individuals, other symptoms also occur, including speech, swallowing, and behavioural problems. Intellectual difficulties, movement disorders and epilepsy can also occur. The variety of symptoms and signs, and their variation over time, can lead to delays in diagnosis, multiple tests and investigations, and sometimes use of inappropriate treatments. So far, no definitive diagnostic test has been available, and a rational understanding of the disease has not been possible.

This study paves the way for future rational treatments for the condition, through a better understanding of underlying disease mechanisms. Whilst this will take some time, the discovery will have a direct impact in enabling more rapid, specific diagnosis of the condition, preventing unnecessary tests and misdirected treatment. The research was jointly led by Professor Sanjay Sisodiya at UCL and Professors David Goldstein and Mohamed Mikati at Duke University, and is published in Nature Genetics.



Genetic study identifies treatable pathway in childhood motor neuron disease

A genetic study has identified two riboflavin transporter genes that are defective in children with a type of motor neuron disease called Brown-Vialetto van Laere syndrome. The research was led by Professor Henry Houlden and colleagues at the MRC Centre for Neuromuscular Diseases and in the United States by Dr Andy Singleton at the NIH.

The onset of disease is generally in infancy or adolescence. Children develop deafness, speech and swallowing problems, face and limb weakness and breathing problems. Many of them require a long term tracheostomy for ventilation and some never leave the intensive care unit and die very young. Prior to this finding, treatment was restricted to supportive care. Although the disorder is rare, it has been identified throughout the world in isolated individual children and also in small families where more than one person is affected.

The two genes identified which both encode riboflavin transporters are called SLC52A3 and SLC52A2, Defects in the most recently found gene (SLC52A2) have now been identified in over 10 families and lead to a lack of riboflavin uptake in the cell and subsequent metabolic sequelae. Treating children with high-dose riboflavin leads to significant improvement in all aspects of their condition, although the use of this treatment is still in the early stages.

This is the first treatable cause of a type of motor neuron disease, thus highlighting the importance of carrying out the genetic test in all children with a similar clinical picture so that treatment can begin early.

Drugs could provide new treatment for epilepsy

New drugs derived from components of a specific diet used by children with severe, drug-resistant epilepsy could offer a new treatment, according to research published today in the journal *Neuropharmacology*. Scientists from UCL and Royal Holloway have identified specific fatty acids that have potent antiepileptic effects, which could help control seizures in children and adults.

The discovery could lead to the replacement of the ketogenic diet, which is often prescribed for children with severe drug-resistant epilepsy. The high fat, low carbohydrate diet is thought to mimic aspects of starvation by forcing the body to burn fats rather than carbohydrates. Although often effective, the diet has attracted criticism, as side effects can be significant and potentially lead to constipation, hypoglycaemia, retarded growth and bone fractures. The new drugs could provide similar epilepsy control, but without causing the troubling side effects.

By pinpointing fatty acids in the ketogenic diet that are effective in controlling epilepsy, researchers hope that they can develop a pill for children and adults that lacks the side effects of the diet. The study tested a range of fatty acids found in the ketogenic diet against an established epilepsy treatment. Researchers found that not only did some of the fatty acids outperform the drug in controlling seizures, they also had fewer side effects. The research also builds on work funded by the NC3Rs in which most of the animal testing normally used in drug development for epilepsy has been replaced by using a simple amoeba to initially screen and identify improved treatments.

Professor Matthew Walker from the UCL Institute of Neurology said: “Epilepsy affects over 50 million people worldwide and approximately a third of these people have epilepsy that is not adequately controlled by our present treatments. This discovery offers a whole new approach to the treatment of drug-resistant epilepsies in children and adults.”

Results from stroke treatment study are in top 10 of Lancet's most highly cited papers

A paper highlighting early results from the International Carotid Stenting Study (ICSS), a UCL-led multi-centre clinical trial which compared two treatments for carotid narrowing was recently listed in the *Lancet* as one of their ten most cited papers in 2010-2011. Narrowing of one of the carotid arteries in the neck (stenosis), which supply blood to the brain, is one of the major causes of stroke and is usually caused by deposits of fat in the wall of the artery, known as atherosclerosis.

This ICSS study, led by UCL Institute of Neurology's Professor of Stroke Medicine, Martin M Brown, and organised by the Institute's Stroke Research Group, compared treatments designed to prevent stroke resulting from narrowing of the carotid artery in the neck. Early results of the trial showed that the traditional surgical treatment of the carotid arteries (endarterectomy), which removes the fatty deposits altogether via an incision in the neck, was safer than the newer treatment of carotid stenting, in which a wire mesh stent is inserted across the narrowing after being threaded up through the artery from a small incision in the groin.

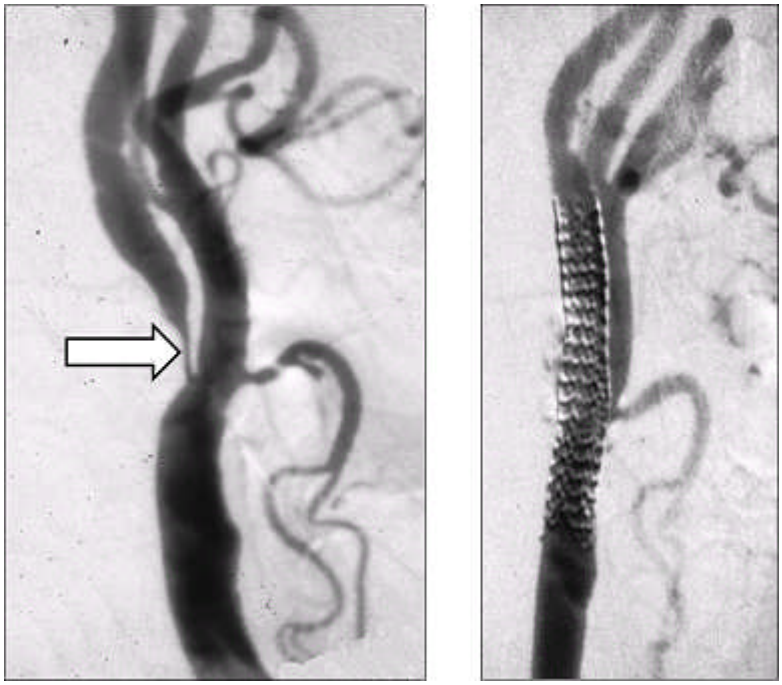


Image: Xray picture after injection of dye into the carotid artery showing severe carotid artery narrowing in the left hand figure (arrow). The right hand figure shows the appearances after the insertion of a metallic stent across the narrowing.

The trial included 1713 patients, who had recently had a stroke or transient ischaemic attack ("mini stroke") caused by carotid narrowing (carotid stenosis), recruited from 50 centres in the United Kingdom, mainland Europe, Canada, Australia and New Zealand. Half the patients were randomly assigned to treatment by stenting, and half to treatment by surgery. The paper published in the *Lancet* in 2010 reported the results of ICSS after the patients had received their treatment and been followed up for 120 days. The trial showed that stenting avoids the wound complications associated with an incision in the neck, but stenting caused more minor strokes at the time of the treatment than surgery. The authors of the paper concluded that carotid endarterectomy should remain the standard treatment of choice for symptomatic patients with severe carotid stenosis suitable for surgery, but noted that stenting was likely to be better than medical treatment alone if patients were unsuitable or unwilling to have surgery.

The ICSS results have been incorporated into National Institute for Health and Clinical Excellence (NICE) guidance on the treatment of carotid stenosis. NICE noted one key issue is the effectiveness of stenting at preventing long-term stroke. The ICSS investigators have continued to follow up the patients in the trial and will be publishing their long-term results later in the year, and this will provide further information on how well stenting prevents stroke compared to endarterectomy.

The trial was funded by research grants from the Medical Research Council UK, the Stroke Association, and the European Union.

International Society for the History of the Neurosciences (ISHN)
Annual Meeting
18th – 22nd June 2013
University of Sydney
Sydney, Australia

The Organizing Committee of the International Society for the History of the Neurosciences (ISHN) announces that the next Annual Meeting of the Association will be held at the University of Sydney, Sydney, Australia from 18th – 22nd June 2013. The Neurosciences is a multi-disciplinary group, which includes medical practitioners, psychologists and neuropsychologists, psychiatrists, neurologists, neurosurgeons and neurophysiologists, all health professionals with an interest in the brain and mind, as well as historians of science and technology.

We would very much like to welcome everyone with an interest in the history of the neurosciences to participate in this meeting in this wonderful city. This is the first meeting of the Society to be convened in the southern hemisphere. The conference promises to provide a wonderful opportunity to acquaint with the rich history of clinical and experimental neurosciences in Australasia, as well as a comprehensive update on traditional historical researches in the broad spectrum of disciplines of the neurosciences.

One day of the meeting will be held at the historical precinct of the old Quarantine Station, situated on the isolated shores of beautiful Sydney Harbour. The theme of this meeting will be the rich history of infectious neurological disorders; papers on this theme are invited.

An opportunity to celebrate the occasion of the 50th anniversary of the awarding of the Nobel Prize to Sir John Eccles, for his work on neurotransmission, with a special one-day symposium in celebration of the history of neurosciences in Australasia, will also happen in 2013.

We look forward to welcoming you to Sydney and hope that our international guests will use this opportunity to see much more of this extraordinary, diverse continent. For further information about this meeting, previous meetings and the Society please refer to the website www.ishn.org. A call will soon be made for submissions (papers, posters, and symposia) as well as registration.

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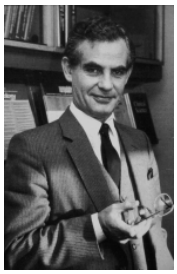
Professor David Marsden biographical memoir



I would like to draw your attention to a 26-page biographical note on Professor David Marsden that has just been published :
QUINN N, JENNER P, ROTHWELL J. Charles David Marsden. 15 April 1938 – 29 September 1998.
Biographical Memoirs of Fellows of the Royal Society. 2012; 58: 203-228
The PDF of the article can be downloaded (in glorious colour) online free of charge by pasting the following URL onto your address bar and clicking Enter:

http://rsbm.royalsocietypublishing.org/cgi/reprint/rsbm.2012.0026?ijkey=zVKvndzyWWohaz6&keytype=ref

As well as the article itself, supplementary material including his complete bibliography (1363 publications!) can also be accessed by pasting the following URL and then clicking Enter:
http://rsbm.royalsocietypublishing.org/content/suppl/2012/05/17/rsbm.2012.0026.DC1.html

Letters to the Editor

Dear Mr. Blundred,

Another alumnus (using the term loosely) received the latest issue of the Alumni News and sent it to me, which reminded me that I have not received news of yourselves since Pat Harris resigned because she had been appointed Lady Captain of her golf club. We were great friends, as was Ian McDonald, who was several times in Chile due mostly to my instigation, and always came to our house to eat sea urchin. The last time he was with us he invited me to his Festschrift, which I was unable to attend due to my first granddaughter's birth. When in London I used to go with Pat to the Queen's Larder for a pint.

I was never on the house, as I held a British Council scholarship, so that I attended as another post graduate doing the yearly course. Having read medicine in Britain however granted me various privileges, one of which was joining Professor Gilliatt's unit for most of my time there. I arrived towards the end of 1967 and stayed until 1969, having started in Drs. Goody, Ross Russell, and Morgan Hughes firm for three months, and after stints in Neuro-chemistry and Neuropathology, I was invited to the Professorial Unit. So the term alumnus loosely applies to me too. Later in life I sat on the Editorial Board of Practical Neurology, a journal founded by Charles Warlow, another close friend, just retired from the Chair in Edinburgh. He does not belong to the Queen Square lot, however. We resigned from our respective jobs at about the same time; it was he who remarked in a Board meeting that my Anglophilia is very noticeable. I expect that you have reached the same conclusion.

Yours sincerely,
Dr. Gonzalo Alvarez
Vitacura, Santiago,
Chile.

Queen Square Alumnus Association Meeting

The two day Alumni meeting will take place on the 8th and 9th July 2013. You will be able to book online soon.

Poster submissions welcomed on your current research or about Neurology in your country/links between your region and Queen Square. 10 posters will be displayed throughout the meeting.

Fee: £100 for registration

Monday, 8th July 2013
Venue: Basement Lecture Theatre, 33 Queen Square, National Hospital for Neurology & Neurosurgery

8.30 am	*Registration*	
9.00am	Welcome and History of Epilepsy at Queen Square	Professor Simon Shorvon, ION
9.45am	New treatments for Epilepsy – the ideas of Hughlings Jackson realised	Professor Matthew Walker, ION
10.30 am	Queen Square and the development of neurology services in Kenya and East Africa	Professor James Jowi, Alumni, Kenya
11.05 am	*Coffee*	
11.30 am	Britain, the "English Malady," and neuropathic pain	Professor Jose Ochoa, Alumni, Chile
12.15pm	Recent developments in Peripheral Nerve Disease	Professor Mary Reilly, ION
12.50pm	PhD highlights – research of current students	Various speakers PhD students, ION
1.00 pm	*Lunch*	
1.50pm	PhD highlights – research of current students	Various speakers PhD students, ION
2.00pm	Recent developments in Dementia research	Professor Nick Fox, ION
2.40pm	Australia and Queen Square	Dr Catherine Storey, Alumni, Australia
3.25pm	*Tea*	
3.45pm	The present and future of Neurosurgery	Mr George Samandouras, NHNN
4.30pm	Neurosurgery at Queen Square: a historical perspective	Mr Michael Powell, NHNN (retired)
5.10pm	rTMS and other non-invasive brain stimulation techniques	Dr Mark Edwards, ION
5.40pm	Evening Drinks reception	

Tuesday, 9th July 2013

9.00 am	The History of Therapy of MS over the last two centuries - hopes, frustrations and triumphs	Professor Jock Murray Alumni, Canada
9.45 am	Clinical and research developments in MS	Professor Alan Thompson, ION
10.30 am	Uro-Neurology at Queen Square	Professor Clare Fowler, ION
11.05 am	*Coffee*	
11.30 am	Gowers and historical highlights of the National Hospital	Professor Andrew Lees, ION
12.15pm	Kinnier Wilson, his 1912 Brain paper & Movement Disorders at Queen Square	Professor Niall Quinn, ION
1.00 pm	*Lunch*	
1.50pm	Mouse Models and Down Syndrome	Professor Elizabeth Fisher, ION
2.20 pm	Huntington's Disease, past, present and future	Professor Sarah Tabrizi, ION
2.55 pm	Neurology in Thailand and links with Queen Square	Professor Suthipun Jitpimolmard, Alumni, Thailand
3.40pm	*Tea*	
4.00pm	Recent advances in Neuro-oncology	Dr Jeremy Rees, NHNN
4.30pm	International teaching in Queen Square: opportunities to contribute and network	Dr Laura Moriyama, ION
4.55pm	Ophthalmology and the National Hospital	Dr Gordon Plant, ION
5.40pm	Evening Drinks reception	

Upcoming Events

13th Annual Course: Neuroradiology & Functional Neuroanatomy

Monday 15 April – Thursday 18 April 2013 (four days)

Dates to note:
Registration Deadline – Monday 18 March 2013
13th Annual Course Welcome Reception – Monday 15th April 2013
13th Annual Course Farewell Reception – Thursday 18 April 2013

For further details, contact:
Email: patricia.cheng@ucl.ac.uk
http://www.ucl.ac.uk/ion/articles/events/13thannualcourse

Queen Square Alumnus Association Meeting 2013

Monday 8th & Tuesday 9th July 2013

Registration fee: £100

For further details, contact:

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For more information visit http://www.ucl.ac.uk/ion/education/alumnus

Interview with Professor Clare J Fowler

Professor Clare J Fowler CBE , FRCP is an Emeritus Professor of Uro-Neurology at UCL and formerly consultant at the National Hospital for Neurology & Neurosurgery.

What were your first impressions of Queen Square?

As the original buildings still stand, it appears superficially little changed but culturally it is very different. The National Hospital for Nervous Diseases was a 'Special Health Authority' and the Institute of Neurology had evolved as an academic offshoot of the hospital, with administrative links to the University of London, but otherwise under the direction of its Dean. When I first arrived, Queen Square was the domain of the consultant medical staff, presided over by the Chairman of the Medical Committee, assisted by a General Manager.

Things have changed here as they have throughout the NHS and universities, such that all hospitals are now maintained by a team of professional managers. Staff, at all levels, and doctors in particular, are subject to a much higher level of regulation and held accountability. The Institute of Neurology survived, (a feat not successfully achieved by several lesser clinical institutes in London), and flourished, and is now a component part of UCL. It remains inseparable from The National Hospital for Neurology and Neurosurgery.

Who are the people who have had the most influence on your career?

At school I remember watching a film of a missionary doctor working in some part of the former Empire. She appeared to be such a force for good that I decided, that afternoon I would be a doctor, and I qualified from the Middlesex Hospital Medical School some 15 years before it was merged with UCH Medical School. I was fascinated by the nervous system in the pre-clinical syllabus and my junior training included neurology at Central Middlesex, where the neurology consultants spoke of "The National" in tones of some reverence.

I was fortunate then to get a job as SHO at The National, working for Drs Earl and Kocen and Sir Roger Bannister. This was one of the most enjoyable employment experiences of my life and I remember arranging to work someone else's weekend in addition to mine because I so loved it there. I very much wanted to pursue a career in neurology, but on the advice of Professor Roger Gilliatt, I spent the following year doing an MSc in Neurophysiology at UCL where, amongst other things, I studied laboratory computing with Professor George Dawson. At the end of the war he himself had worked in the precursor of the Institute of Neurology, Dr Arnold Carmichael's research unit, and had introduced the concept of electronic averaging to neurophysiology. The late 1970s was the time when computing power was first becoming available outside government institutions and at UCL I was introduced to the mini-computer, the Linc 8, and to machine code. I wish I had a photograph of my then baby daughter in her carrycot being kept warm by that large machine, to show how subsequently each developed - she grew and computers shrank - at a remarkable rate.

Professor Gilliatt then employed me at the Institute of Neurology for 3 years to study ischaemic neuropathy in rabbits, from which I gained a clear understanding of peripheral nerve physiology and electrophysiological recordings. Then back at The Middlesex Hospital, Professor Michael Harrison had funding for me to assist Mr John Andrew with brain electrode recordings during stereotaxic

thalamotomy for dystonia, whilst concurrently training in clinical neurophysiology. Later I worked there with Dr Paddy Le Quesne on methods of sensory testing, with my particular interest being in methods of testing thermal sensation. These sensations, now regarded as part of interoception, being conveyed in unmyelinated or small myelinated fibres, tested nerve fibre function not examined by electrophysiological means. One of the challenges was devising a simple and reliable system for obtaining responses from the subject to the sensory stimulus. When I was able to measure the thermal threshold on the little feet of my small son, I knew the method must be good for most patients.

One day at the Middlesex Hospital, a surgical research registrar, Roger Kirby, came across from the urology department and asked me what I knew about sphincter EMG. My immediate answer was 'nothing', but I was sure I could find out, which was the start of a fruitful collaboration and an introduction to an understanding of the neurology of the bladder that proved to be the basis for my later career. In the first years of our collaboration we published several papers on neurophysiological aspects of the urinary sphincter and Roger successfully presented his MD thesis.

Part-time training in clinical neurophysiology led to a job with combined consultant sessions at the Middlesex Hospital and St Bartholomew's Hospitals, but it was during a trip to The National Hospital that I met Dr Chris Earl in the Square. He told me with his (fondly remembered) amused smile, that the Medical Committee had just appointed me to the session relinquished by the retiring consultant urologist. This was something of a surprise and an appointment process that by modern days would be considered somewhat worse than 'irregular'.

After a few years of attempting to do very different things at three different sites, my sessions gradually changed and I ended up doing exclusively what I called 'uro-neurology' at The National Hospital. It had been pointed out to me that I knew less about urology than neurology and whereas urologists interested in neurological problems called themselves 'neuro-urologists', I would be better known as a 'uro-neurologist'.

Opportunities made possible at Queen Square

When first appointed I thought that my job was to continue with a neurophysiological approach and investigate patients, but it quickly became apparent to me that patients with neurological diseases wanted effective treatment of their genito-urinary symptoms, preferably without surgery. This led to a real journey of discovery employing both established low-tech, non-surgical treatment methods and taking part in trials of new therapies, some of which proved highly effective including sacral neuromodulation for urinary retention, sildenafil citrate for men with MS and botulinum toxin injections into the bladder wall to treat urgency incontinence. Attempts to de-afferent the bladder with intra-vesical agents were scientifically sound and proved to be of theoretical importance, but were less clinically successful. A number of trainee urologists worked on these projects as research fellows and together with the more long term appointed nurses, we created the department of Uro-Neurology.

There were many other opportunities for collaborative research that were only possible because Uro-Neurology had evolved at The National Hospital and the Institute of Neurology. Immunohistochemistry of bladder biopsies before and after botulinum toxin injections to treat urgency incontinence by visiting urologist Dr Apostolos Apostolidis, led to a new understanding about how the disruption of SNAP protein function might be affecting afferent neurotransmission

within the bladder wall, a concept which had wider implications for understanding the mechanism of action of botulinum toxin. A meticulous electron microscopy study by Professor David Landon resulted in the identification of a new type of putative stretch receptor in the bladder wall, a concept that has been massively developed elsewhere since. Throughout my clinical research career I always valued the view of basic scientist Professor Chet de Groat from University of Pittsburgh. Chet has been unfailingly interested and helpful, and it was from his animal observations that several human projects were initiated.

Functional brain imaging techniques started to be applied to the investigation of the central control of the bladder, and in collaboration with the Functional Imaging Laboratory at Queen Square, Uro-Neurology contributed an early study looking at brain activity during bladder filling – the activity we perform for the majority of our lives. The images from functional imaging of the brain during bladder filling and emptying, neuromodulation and disease states have had a powerful impact on the urological research community and moved the focus of attention away from the bladder itself to considerations of neurological control.

Throughout this period there were many opportunities to teach and lecture. I have enjoyed teaching on the Institute courses and also at local, national and international meetings. I was very fortunate that this was the time of cheap airfare and unrestricted pharmaceutical support for meetings and I travelled the world!

All the research activity was clinically based on the neurological patients referred from both within and outside the hospital and we were able to help many of them. Early on Professor Ian McDonald was particularly supportive, presumably after seeing improvements in his patients with MS. The specialty appeared to fill a gap for the urologists who referred endless difficult patients who might have had a neurological basis for their complaints, but who did then generously award me their St Peters' Medal in 2010.

What do you think of as your greatest achievement as a clinician/researcher?

Uro-Neurology is now also on the syllabus for trainee neurologists and I believe my greatest achievement was to give neurologists the message that neurogenic uro-genital disorders matter very much to patients, and these complaints are often treatable with simple measures. The CBE in the 2012 New Year's honours for 'services to Uro-Neurology' was a totally unexpected distinction. On 29th February I found myself in the Great Room of, Buckingham Palace, before HRH Prince Charles, explaining Uro-Neurology in a 45 seconds handshake.

Can you tell me what led to the discovery of Fowler's Syndrome?

When I first started to see patients with urological problems for a neurophysiological evaluation I was struck by the then urological teaching that urinary retention in young women was of hysterical origin. There was an authoritative American textbook which listed the criteria for recognizing

psychogenic factors which might predispose to stress and thus the onset of psychogenic urinary retention. The list included all life's events which young women are likely to encounter – stress, sexual relationships, worry and bereavement - and one or several of those alleged factors could usually be elicited from the history of the women in retention. It was in such women that I and my co-research fellow Roger Kirby, recorded a very striking electromyographic signal from the urethral sphincter that to me was highly reminiscent of myotonia. However Dr Robin Willison, the leading EMG authority at The National, pointed out the EMG activity was not actually myotonia but rather a form of complex repetitive discharge activity with a pronounced decelerating component that was producing a sound so much like the underwater recordings of whales. I also noticed that many of the young women presenting with complete urinary retention had clinical features of polycystic ovary syndrome, a condition which if untreated in overweight girls causes acne and hirsutism. That observation led to the hypothesis that some form of hormonal imbalance was allowing ephaptic transmission in urethral sphincter muscle fibres to develop and thus the abnormal EMG signal. Initially it seemed likely the girls' failure to void was the result of a failure to relax their striated sphincter, the initiating action of micturition but it was subsequently pointed out to me by Professor de Groat, that contraction of the sphincter has an inhibitory effect on detrusor contraction. This seemed like a more likely mechanism because the condition responded remarkably well to sacral neuromodulation, which did not appear to alter the sphincter abnormality but restored bladder sensation and the ability to void.

I encountered considerable difficulties with this hypothesis because urinary retention in young women seemed to keep 'bad company'. Although I always resisted the recurrent suggestion that the problem was of psychological origin I could not deny that the behaviour of many of the young women was 'difficult'. An explanation emerged in the final few years of my career when the connection between oral opiate analgesics and urinary retention became apparent. For how long this had been a significant association I will never know because I had not thought to ask the early cases, but in recent years the prescription of oral analgesics which are opiate based has become a phenomenon of some concern. In the final analysis it seems that there are three groups of women in retention, those who simply have the abnormal sphincter EMG activity, women who have the EMG activity but who also take tramadol and women who take a lot of oral opiates. The excellent response of all three groups to sacral neuromodulation led to the final hypothesis that the sphincter EMG abnormality may up-regulate spinal endorphins and so exert its inhibitory effect on detrusor contraction. This intoxicating level of spinal endorphins in the sacral cord may then be further accentuated by exogenous opiates. A study of the effect of neuromodulation in animal models of opiate induced urinary retention is needed to examine this hypothesis further.

What do you see as the major challenges in research and clinical outcomes in the field of Uro-Neurology over the next 10 years?

Those working in Uro-Neurology have the opportunity now to study the neurology of all three pelvic organs, bladder, bowel and sexual organs. The neurological control of the first two appears similar in many respects and certainly direct interactions can be demonstrated in experimental animals that presumably provide the basis for shared functional disorders. Disorders of sexual function are extremely complex, but functional brain imaging has much to offer in understanding such problems. Neural control of the pelvic organs is based on multiple spinal reflexes either segmentally or trans-spinally organised and the development of spinal functional imaging will reveal much.

Drug development is likely to be important as the pharmaceutical industry now understands well the importance of pelvic organ disorders in terms of their effect on quality of life, and the prevalence of the disorders. Most immediately a better understanding of poor bladder control in neurodegenerative disorders is needed and a new therapeutic strategy required.

What have you been doing since you retired?

Mainly horticulture and grandchildren. We have a large garden in Surrey which will be open in June 2013 as part of the National Garden Scheme, so there are standards to maintain! I am working my way through the RHS exams by attending the former agricultural college, Merrist Wood and I am greatly enjoying learning botany, the Latin names of plants and the life cycles of pests and diseases. Plants are wonderful organisms, and that they do not have a nervous system or concerned relatives comes as something of a relief. Many of them respond well to pruning.

I am also writing a book on the 1618 *Pharmacopoeia Londinensis* for the Royal College of Physicians, which I hope to have ready for the 400th anniversary of its publication. This is taking me into the realms of the English Civil War, an in depth understanding of wild flowers and their proposed medicinal properties and may also involve some interactions with the Medicines Healthcare Regulatory Authority, so altogether a very absorbing retirement project.

What has working at Queen Square meant to you?

Like all those before me who have been asked this question for the Newsletter I must answer that it has been the most enormous pleasure and honour to work at Queen Square. I greatly enjoyed working in the Hospital (and I have not even mentioned my stint as deputy medical director and as Caldicott Guardian for UCLH) and my research with those from the Institute of Neurology. I do however slightly regret not having made more of the possible opportunities for collaborative research but there were only 7 days in the week and my primary responsibility was to see patients in clinics. Queen Square is a centre of such excellence, at the forefront of clinical and basic neurological science, it would be almost impossible to understand what everyone else there was doing, but there has to be considerable relevance and overlap and would recommend my successors spend as much time and energy as possible discovering those potentially important co-incidences.

"The Interview" with the Editor

Dr Andreas Moustris graduated from the Medical School of Athens. He continued his medical training by completing a one-year rural service, followed by a nine month rotation in Internal Medicine and a six month rotation in Psychiatry. He started his Neurology training in 251 General Airforce Hospital in Athens, where he worked for ten months. He subsequently moved on to the UK, where he attended the MSc in Clinical Neurology 2008-2009 course, under a scholarship by the Hellenic Neurological Society. In late 2009 he returned to Greece, where he started working in the University of Athens, 1st Department of Neurology. He is currently a senior registrar there.

Why did you decide to undertake the MSc in Clinical Neurology?

Trip to the National Society for Epilepsy Centre in Chalfont with the MSc/Diploma in Clinical Neurology students (Nov 2008)

I applied for the MSc in December 2007. At that time I had completed the first part of training that was required for neurologists in Greece (internal medicine and psychiatry) and had about six months of experience in clinical neurology. A colleague recommended this course as an excellent opportunity for both theoretical and practical training in neurology. After reviewing the programme structure and requirements, I realised that it was a comprehensive course covering all the areas of neurology. Prospective students could attend seminars and lectures that would be delivered by well known researchers and clinicians almost daily, while at the same time there would be opportunities to participate in workshops, attend outpatient clinics and grand rounds and receive bedside teaching. During the final six months of the course, students would be attached to specialist firms to undertake a research project. I felt that the combination of these training opportunities would help me develop both clinical and research skills.

Since completing your MSc what have you been doing?

I graduated from the course in September 2009 and returned to Greece in order to complete my neurology residency at a University Hospital in Athens. I have been working there as a registrar ever since, and am about to complete my training in a few months.

What is the situation like in Greece with regards to the National Health Service and life in general?

The economic crisis has taken its toll on almost every aspect of social, occupational and political activity in Greece. Healthcare Service providers – the Greek NHS, University Hospitals and the private sector - couldn't possibly have been immune to the crisis. The NHS however, being the

largest part, forms the backbone of healthcare provision and has been put under significant pressure. A large number of patients whose medical problems were addressed by physicians working in the private sector, are now unable to meet the economic demands and resort to public healthcare. This has resulted in financial pressure for the private sector and a shift of workload towards University Hospitals and the NHS. The latter have to meet the increased demand with budget and salary cuts. Major reforms have been implemented and are still on-going. I 'd say that the NHS has adapted successfully up to now, and thanks to the sacrifices made by the Greek people and the hard work put in by medical and nursing staff, the quality of services has not been significantly compromised. Another implication of the shrinkage of the private sector and the lack of posts available in the NHS is the migration of a significant proportion of young doctors, both residents and consultants. Britain, Germany, Sweden, and the USA seem to be the most popular destinations. However, this phenomenon of "Young Brain Drain" is occurring in many highly skilled professions, and not only among physicians.

In a broader perspective, although recession and austerity have reached most people's doors, life hasn't changed much: people are still warm hearted and open, with a great sense of hospitality and inherent optimism. The Greek sun and beaches are definitely not in crisis; Greece is still one of the most beautiful places on earth.

What are you working on at the moment?

I am currently working as a senior registrar in the outpatient clinics of my hospital and studying for the oral board examination that I have to take in the beginning of next year in order to complete my residency.

What are your plans for the future?

I plan on going back to the UK in order to get subspecialty training in movement disorders.

What are your fondest memories of your time at Queen Square?

Dr Moustris (far left) celebrating getting his MSc with fellow students and the Editor (fourth from left)

The year that I spent at Queen Square was one that I remember with nostalgia. It's hard to pick out single moments, because my time there was always full of interesting activities. My fellow students on the course came from all over the world and we quickly developed positive relationships. I think that it was a really nice example of how people from diverse backgrounds can interact in a productive and meaningful way, broadening their understanding of different cultures, united by their passion for neurology and the neurosciences. The staff of the Institute of Neurology and the National Hospital were always kind in attending to our needs. Special thanks are due to my supervisor, Dr Mark Edwards, who introduced me to the field of movement disorders and the members of the Education Unit, who did their best to make sure that the course ran flawlessly and that we'd enjoy our time at Queen Square and in London. I will not forget Daniela (Ms Warr-Schori) performing in a choral work at the Royal Albert Hall with the whole MSc class in the gallery!

The Editors Travels 2012

Thailand

In July of this year I was fortunate enough to have the opportunity to visit several Alumni in Thailand. The focus of my visit was to advertise UCL's Distance Learning Diploma in Neurology, with Thailand viewed as a key area to target for this market. The first place I visited was Khon Kaen University to meet with Professor Suthipan Jitpimolmard and Associate Professor Somsak Tiamkao, both of whom worked with Professor Simon Shorvon when at Queen Square. Then on to meet Dr Surat Tanprawate and colleagues at Chang Mai University, to see the local sights and encourage neurology residents to come to Queen Square. Later on my trip I went to Chulalongkorn University in Bangkok, to meet with Professor Nijasri C. Suwanwela where we discussed courses offered by the UCL Institute of Neurology and the possibility of a memorandum of understanding between UCL and Chulalongkorn. I was also given a tour of the neurology department, and it was fascinating to see the facilities there. I finished by visiting Dr Eakarush Naressenee, delivering a talk on opportunities at the UCL ION to medical students, residents and fellows at Somdejprapinklao Navy General Hospital. I am very lucky to have made so many good friends in Thailand, and the hospitality I received was fantastic. Chang Mai, is my favourite place to visit in Thailand and I would recommend it. The climate and laid back atmosphere makes for a very relaxing time and for a coffee lover like myself, it is a great place to be, with coffee shops on virtually every street corner.

France

The UCL Institute of Neurology has a two year Masters (Dual Masters in Brain and Mind Sciences) in which students undertake a year at UCL and a year at UPMC and ENS. This programme offers students the chance to study Neuroscience and related subjects at three different institutions, in two different countries. I have been fortunate to become good friends with people from this course, and a visit to Paris has become a regular event. It was especially nice to meet Jean-Remi King and Celine Ngon, great friends of mine from my first year at the Institute, and who are both undertaking PhD's in Paris. I met with students from years 2, 4 and 5 of the Dual Masters on my trip and it was fantastic to catch up with them all, and I am delighted that a sense of camaraderie exists between the different year groups, and that this masters' retains its specialness.

Germany

I was honoured to be invited, along with six IoN PhD students to a PhD poster presentation event at the Berlin School of Mind and Brain, Humboldt University. We hope to form closer links with the school and have two former masters' students (Bianca Van Kemenade and Christoph Korn) undertaking PhD's there. The trip was organised by Dr Inken Dose, and I hope that this event is the first of many between the two institutions. The posters displayed showed the range of research undertaken at the school and the IoN students (Sundeep Teki, Sarah Wiethoff, Helen Crawford, Louise Marshall, Amy Nick and Jonathan Cornford) thoroughly enjoyed the event.

An Update from the Dominican Republic

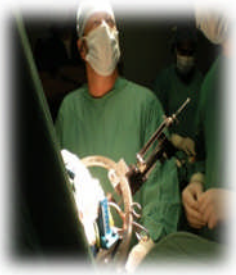
Professor Jose J. Puello M.B., Ma (Chirg), M.A. (Med), I.M.C.N.S., F.A.C.S, who is a Consultant Neurosurgeon and Chief of Neurosurgical and Neurology Departments at the Dr. Luis E. Aybar Hospital and Centro Cardio-Neuro Oftalmologico y Trasplante, updates us on events in the Dominican Republic.

In April 2008, the Cardio-Neuro-Ophthalmological Centre was opened in the capital Santo Domingo, in order to attend to patients from the lower classes of the country. A special unit was added to carry out organ transplants. The whole centre was equipped with high technology instruments, so much so that it has been, since then, the best equipped centre in the Caribbean. The neurological specialities consist of:

1) Conventional Neurosurgery
2) Clinical Neurology
3) Skull Base Surgery
4) Functional Neurosurgery
5) Paediatric Neurosurgery
6) Peripheral Nerves Unit
7) Endovascular Surgery
8) Pain Clinic (Invasive)
9) Epileptic Unit (Video EGK)
10) Spine Unit (along with orthopaedic surgery)
11) Paediatric Neurology
12) Centro Vascular Unit
13) Neuroradiology
14) Neuropathology
15) Neurophysiology
16) Neuropsychology
17) Neuro-anaesthesia
18) Neuro Intensive Care Unit

In terms of staff employed we have 9 Neurosurgeons, 5 Neurologists, 2 Neurophysiologists, 2 Neuropsychologists , 4 Orthopaedic Surgeons, 1 Plastic/Reconstructive Surgeon, 2 Nutritionists, 2 Neuroradiologists, 2 Neuropathologists, 6 Neuro-Intensivists and 2 Endovascular Surgeons

All in all we have performed in excess of 1,200 major operations on the CNS each year and we cover the whole territory of the Dominican Republic. We also receive patients from Haiti in large numbers and from some Eastern Caribbean countries. Right now we have 54 beds for daily admissions and a fully equipped ICU, along with 4 operating theatres that are used 5 days a week. Our Outpatient Clinic has 10 sessions per week.



Needless to say the department is the best in the Dominican Republic. Our technology programme is directed to properly train young neurosurgeons and apart from our congress (every other year) we accept fellows in our endovascular programme. We also have some agreements with other neurosurgical units in the Caribbean, South America and Europe in order to receive their residents for short periods of time. Every Monday we have our staff meeting and the Radiopathological meeting is held once a month, where the most interesting cases are presented. I am hoping to set up a Brain Suite early next year (we already have Brain and Spine Neuronavigation suite together with the state of art microscopes). Our Unit is lacking a Stroke Centre and we are planning to invite Professor Martin Brown from the National Hospital for Neurology and Neurosurgery, UK, to help us with this endeavour.

Wilson's Disease Centenary Symposium by Professor Niall Quinn and Dr Ted Reynolds

From left to right - Dr Ted Reynolds, Dr John Walshe and Prof Niall Quinn

2012 is the centenary of the publication of Kinnier Wilson's famous paper on "Progressive lenticular degeneration" in the journal, Brain. This milestone in the history of neurology was marked by a two-day symposium on Wilson's Disease at the Royal College of Physicians in London on 5th and 6th October.

Kinnier Wilson.

Samuel Alexander Kinnier Wilson (SAKW) (1878-1937) is distinguished throughout the neurological world not only for the disease that bears his name but for his unique and scholarly two-volume textbook, his life work, which was published posthumously in 1940.

Born in the USA to a Scottish mother and an Irish father he returned to Scotland for his education. He graduated from the Edinburgh Medical School in 1902. With a Carnegie Fellowship he studied neurology under Pierre Marie and Joseph Babinski in Paris, with an additional few months in Leipzig. This experience culminated in his appointment in 1904 as House Physician at the National Hospital for the Paralysed and Epileptic. He remained here at the National Hospital for the rest of his career, successively as Registrar, Pathologist, Assistant Physician (1912) and Physician (1921). In 1912 he was also appointed Assistant Physician to the Westminster Hospital, but in 1919 he resigned to take up the new post of Consultant Neurologist to King's College Hospital, where he also remained for the rest of his career. He was also appointed Consulting Neurologist to the Metropolitan Asylums Board.

His seminal Edinburgh thesis opened up the whole field of clinical disorders of muscle tone and movement, of which he became the leading authority in the world. His interests embraced every aspect of neurology, including hysteria and the borderlands of psychiatry, and this is reflected in his founding, in 1920, of the Journal of Neurology and Psychopathology, now the Journal of Neurology, Neurosurgery and Psychiatry, which he edited until his death. SAKW was fluent in French and German and his knowledge of the neurological and psychiatric literature became encyclopaedic, which is why his textbook of Neurology, and that of Sir William Gowers, are widely regarded as the two greatest single author texts on the subject ever written, certainly in the English language.

At the first International Congress of Neurology in Berne, Switzerland in 1931 Sir Charles Sherrington and Kinnier Wilson were elected as President and Secretary General respectively of the 2nd International Congress of Neurology in London in 1935. SAKW was also President of the neurological section of the Royal Society of Medicine from 1933 to 1935. In 1933 he was proposed for the Fellowship of the Royal Society by Sherrington and Lord Edgar Adrian, both Nobel Laureates and each a President of the Royal Society, a unique honour for SAKW, but unfortunately he died before election.

Centenary Symposium.

Ted Reynolds described how he had first met James Kinnier Wilson, SAKW's younger son, an Assyriologist at Cambridge University, at a symposium at King's to mark the 50th anniversary of SAKW's death. In the subsequent twenty-five years he and James have collaborated in translating and reporting Babylonian descriptions of neurological and psychiatric disorders, such as epilepsy, stroke and psychoses. Through contact with a nephew of James, i.e. a grandson of SAKW, a remarkable twenty minute silent film of fourteen patients with movement disorders made by SAKW in Queen Square in 1924/25 had come to light. He illustrated the film by showing examples of Wilson's Disease and hysteria, including a shot of SAKW himself. It is possible that the film may have been facilitated by Charlie Chaplin, with whom SAKW was on friendly terms.

James Kinnier Wilson, now aged 91, spoke eloquently about "The Man and the Moment". He illustrated three aspects of his father's character. Firstly, his literary and teaching skills, based on his classical education, his knowledge of French and German and his love of words and pure English; secondly, his precision in medical terminology and definition; and thirdly his sense of humour. "The Moment" refers to the occasion he travelled to Switzerland to undertake a post-mortem on a patient with presumed progressive lenticular degeneration whom he had been studying. When he palpated the liver surface to discover the patient also had advanced cirrhosis he was momentarily overcome with emotion. His suspicion of a disease of both brain and liver was confirmed.

Niall Quinn spoke about Wilson's 1911 MD Thesis, in which he described three new personally observed and personally autopsied (brain and liver) cases of an apparently previously unrecognised condition. In his 1912 Brain paper he added a fourth case, who was

the first to be labelled in life as having Progressive Lenticular Degeneration. He also detailed, and retrospectively diagnosed, eight earlier cases from the literature or from Queen Square case notes. This paper, 219 pages long, occupies an entire issue of Brain, and must be the most detailed in history to describe a new disease. The paper did not mention K-F rings, as Fleischer first described them in Wilson's Disease in 1912. Wilson later wrote in 1933 that he had only seen K-F rings three times (at the time of his death he had seen a total of thirteen cases of "his" disease). Nor did he use the term dystonia, coined only in 1911 by Oppenheimer. Of the twelve cases in his paper, eight from three families involved affected siblings, yet curiously Wilson stated "nor has any congenital or hereditary instance of the disease been recorded", perhaps at that time only recognising dominant conditions as hereditary.

183 years of wisdom: Left Prof James Kinnier Wilson, Right Dr John Walshe

Dr John Walshe, the Doyen of Wilson's Disease, is one year older than James Kinnier Wilson, and just as sharp. His father, Sir Francis Walshe, was a consultant neurologist at Queen Square. John recounted, in his witty and inimitable style, the saga of the conquest of Wilson's Disease. An excess of copper in the Wilson's brain and liver had been discovered at Queen Square by John Cummings in 1948. British anti-lewisite (BAL) was initially tried to treat patients in 1951, but had waning efficacy, the injections were painful and the drug caused toxic reactions. In 1954, working as a Fulbright Scholar at Harvard, Walshe surmised that, given its structural formula, penicillamine should be able to chelate copper, so he first tried it on himself before giving the rest of his first sample to a patient of Dr Derek Denny Brown. On his return to the UK he soon treated another three patients, one of whom is still alive and well 53 years later, and the rest is history. He also recounted the later development of Trientene, Zinc and Tetrathiomolybdate as alternative treatments for Wilson's Disease.

A small exhibit was mounted at the College, and a larger one will be displayed in the Queen Square Library from January to March 2013.

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Out of the Archives

This account of Christmas Day at the National Hospital from 1906 was written by Nurse A.S. Lewes, (nee Robertson) and was published on the 15th February 1907 in the Daily Telegraph, Sydney, New South Wales, Australia.

"Christmas in a London Hospital

There being a custom in English hospitals that no nurse is granted leave on Christmas Day, I had to decline a number of invitations for that day and settle down to have a really happy day with patients and nurses. Preparation in the way of decorations had occupied attention for some days previously and a right royal time we had, and it is now my pleasure to write my experiences, which will be of interest to loved ones far away. Our ward looked simply lovely. Yellow art muslin festooned from the windows to the window rails making a bright canopy, and pinned to the muslin were sprays of bright red-berried holly – such quantities of it. Above the fireplaces a bank of holly and mistletoe. Our pot plants were fine, and our flowers lovely, - daffodils, yellow chrysanthemums, white hyacinths, and lily of the valley. There was no other decoration, and it looked so light and pretty with the green curtain of the ward. Every patient wore a spray of holly in their hair, and even in the kitchen the pot lids could boast of a spray, and the mantelpiece was gaily strewn.

I acted Santa Claus, and filled pillow-slips for all those who had too much to go into stockings, for every patient received a present from the hospital. It was great fun; and a brilliant idea striking me, I donned a red dressing-gown, and with a roll of wool round my hair and cap, and fine long streaming tow beard, I made just an excellent Santa Claus – at least, so I am told. Then I came to each bed – it was 5.30am – and switched on the electric light. The screams and laughter as I plonked down the pillow-slip on each chest with a Christmas greeting filled the ward with life and laughter. Suddenly we were disturbed by knocking at the parapet windows. It was carol singers ready to commence, so I tore off my robes and switched off the light above each bed, leaving the place in darkness. Then I opened the doors, and we heard the sweet strains of "Noel". Then they walked through the wards singing – all being nurses (male and female) – in double file, each one holding a lighted taper. It was a lovely spectacle, and even prettier as we watched them through the ward opposite, with the many moving lights. It was a happy morning, all in the best of spirits, each forgetting their troubles with the opening day, which broke fair, bright and keen – a perfect winter's day.

I should have loved to see the snow make it the ideal English Christmas I had always imagined our brothers and sisters enjoying while we were basking or baking in the sunshine of "sunny" Sydney. Work did get finished that morning, although I can't remember doing any. There was so much brightness and happiness in the ward, it seemed to do itself. At 9.00am Matron presided at our dinner table. We had turkey, plum pudding, and mince pies – a real Christmas dinner. She left us to have our wine and dessert, but after we donned our bonbon caps, we decided dessert would be nicer in our own sitting room, so we laid waste the land of plenty, filled our sacks with the good things thereof, and departed – and, indeed, it was very jolly round the big fire, and a great bundle from the post was brought to us – my packet, chiefly Australian, contained 26 letters.

In the evening we got up early to visit the different wards. All the day nurses were on duty, but they were allowed to visit the different wards, or invite other nurses to tea in the dayroom, where cakes and dainties

were served, and, after tea, there were concerts in the wards or dayrooms. All the doctors and nurses who could sing or play did their share in helping entertain the patients, of whom many were well enough to enjoy the fun in the dayroom, and in many wards all the patients were up. There decorations were very fine, but I could not compare them with "Prince Alfred" or "Sydney" the conditions being so different.

The ward which was supposed to eclipse all others had at its entrance a spangled arch with snow and icicles hanging from the twigs, and with many robins perched about it, and underneath a Christmas tree hung with toys and baubles, and bright with fairy lights, and round the ward and across it festoons of evergreen.

Particularly touching and pathetic was a ward of epileptics and chronics, mostly hopeless cases. One could scarcely say the decorations were artistic. There was every colour mingled together, but it was all the men's work, every bit, and the centre was a huge shield with the inscription, "Are we down-hearted? No." and each man and each nurse in the ward wore a badge with this device pinned on their breast. They were so happy as we found them finishing their tea, and carefully folding up the pink paper d'oyleys which were elaborately fringed and cut, also their own handiwork.

After again having carols round the corridors everyone settled to sleep, at last Christmas Day was almost passed. It was all so quiet and restful after the lively day it seemed hardly possible that one was a continuation of the other. I looked out in the moonlight night on to the weird bare trees in the square, and could not realise that this is the natural condition of the English forest trees, and for the instant felt the throb of pain one feels when passing through our own ring-barked country. As I meditated, little spots like down were floating in the air, it was white on the ground, and the trees were touched white. So we really had snow for Christmas night, and such a fall – it increased, and soon it was piled against the windows, on the ledges, and on the parapet. It was piled on the boughs and branches of the trees, up the walls of the buildings, and there was no distinction between footpaths and roads, and soon dirty, grimy, old London was draped in pure snowy mantle - "White as untrodden snow." It is the most beautiful sight I have ever seen, and as I gathered it in my arms I felt sorry I had disturbed it. Ah, far away from home it is but I love the work, and it's happy, I am as well. And now with a fervent hope that I may soon visit Hampstead Heath and enjoy some tobogganing I trust you all had as happy a Christmas as I."

I am grateful to Ms Louise Shepherd for locating this article and I have published it in its entirety.

Christmas at the National Hospital for Neurology and Neurosurgery

CHRISTMAS AT THE NATIONAL HOSPITAL.

Fundraising event from the 1930's, used in the annual report from that era

Matron Ling leads her nursing staff on a tour of the wards singing Christmas Carols. We think this photograph dates from the early 1950's

Christmas at the National in the 1970's. On the bottom left is sister Matai with Santa and friends. Do you recognise Santa and his helpers in either photo?

Christmas at the National Hospital for Neurology and Neurosurgery

Can anyone put a date to this photograph? We think the central standing figure is Professor Roger Gilliatt (appointed to the National in 1955). What do you think?

A wonderful photo from our Archives from the 1950's

Mr Geoffrey Robinson (Secretary of the National Hospital) performing as sommelier at a staff Christmas party. Mr Robinson joined the National in 1945 and retired in the early 1980's.

Belfast Neurology in the Nineteenth and Early Twentieth Centuries: The London Connection

Dr Stanley Hawkins

The first physician in Belfast with specific neurological training was John McGee McCormac of Banbridge, Co Down. He entered Queen's College Belfast as a medical student. In 1867 he qualified in Edinburgh with LRCP & S, and proceeded to gain his MD degree in Durham in 1885. He spent some time in London studying neurology and as a postgraduate student attended the National Hospital Queen Square, which had been founded only a few years earlier in 1860. Before he left London, he became one of the original members of the Neurological Society of London.

MacCormac on his return to Belfast in 1888 practiced from his own home at 29 Great Victoria Street. By 1889 MacCormac's house had become "The Belfast Institution for Nervous Diseases, Paralysis and Epilepsy". In 1893 MacCormac moved to the house next door leaving No. 29 to the patients and in 1897 he and the institution moved to Nos. 71 and 73 where they remained until his sudden death in 1913.

MacCormac was also instrumental in the establishment of Claremont Street Hospital in 1896. It was initially called the "Victoria Hospital for Diseases of the Nervous System, Paralysis and Epilepsy" and was opened at No 14 Claremont Street. It was endowed and sponsored by a Miss Farrell, the daughter of a former rector of Dundonald Co Down. McCormac was its first physician. Miss Farrell suffered from a neurological illness, but it is not recorded what the nature of this illness was. The new hospital had male and female wards containing fifteen beds altogether. The hospital was supported by a committee of management drawn from the members of the Belfast establishment. When John McGee MacCormac died in 1913 he was described as the founder of the hospital, but credit was also given to Miss Farrell.

In 1929 Howard Hilton Stewart was appointed assistant physician. He had been a registrar in the Hospital for the Paralysed and Epileptic in Maida Vale London where he had undergone neurological training. Following his death in 1963 a library was founded in Claremont Street Hospital as a tribute to his memory, based on his personal collection of books and journals. This remarkable occasion was well attended. Photographs of the

occasion still exist, as does a collection of autographs of those who attended, including Dr MacDonald Critchley, who had travelled from London for the occasion.

From left to right (Ruby Moore, Matron Ling and Dr Sydney Allison

Dr. Sydney Allison studied medicine in Queen's University Belfast, qualifying with Honours in 1921. In 1922 he became a house physician and house surgeon in the Royal in Belfast. In 1923 he was appointed house physician at the West London Hospital in Hammersmith and later became a registrar in the same hospital. He engaged in postgraduate study at the National Hospital for Paralysed and Epileptic in Maida Vale, the National Hospital Queen Square, St. George's, St Bartholomew's and Charing Cross Hospitals. In 1924 he obtained the degree of Doctor of Medicine with commendation and was elected a member of the Royal College of Physicians of London. He was a young man in a hurry and after just 4-5 months working for Dr. Grainger Stewart in Maida Vale, having had time to obtain his MD degree and his MRCP, he went to a private hospital in North Wales called Ruthin Castle run by Dr (later Sir) Edmond Spriggs. In 1930 he was appointed to the medical staff of the Royal Victoria Hospital in Belfast and became a visiting physician to Claremont Street Hospital in 1939.

Sydney Allison was always interested in the sea and the navy. As a medical student he spent a year in the Royal Navy as a surgeon probationer on a destroyer. A book detailing his memories was published based on his diaries[1]. The great influenza epidemic wiped out many of the crew and made a profound impression on him. Before becoming a houseman in the Royal Victoria Hospital he spent a year at sea in the merchant navy with the Blue Funnel Line in the Far East. He became a Surgeon Lieutenant in the Royal Naval Volunteer Reserve (RNVR) –Ulster Division on HMS Caroline in 1925.

At the start of the Second World War the admiralty called up Sydney Allison employing him as a medical specialist. In 1944 he was appointed senior medical officer in command Royal Naval Neurological Hospital at Stonehouse, Plymouth, carrying the rank of Surgeon Captain RNVR (one of just three reservists to achieve that rank).

Sydney Allison spent the months from September to December of 1953 working on sabbatical with McDonald Critchley in Queen Square. Critchley had also served in the RNVR during the war. The fact that they were both naval men no doubt helped their friendship. The collaboration resulted in a book called the "Senile Brain", published in 1962.[2] From 1966-1968 Allison served as President of the Association British Neurologists. During his presidency he hosted a meeting of the association in Claremont Street, Belfast.

Matron Ling with nurses

In 1950 it was clear that a new matron of Claremont Street should be appointed. Sydney Allison went to Queen Square and forged a formal link with the National Hospital for Nervous Diseases. The matron of Queen Square, Miss Ling was appointed matron of Claremont Street Hospital and despite the distance visited Belfast regularly over a period of thirty years until her retirement in 1981. Many of the nurses from Claremont Street benefited from periods of training in Queen Square. Miss Ruby Moore was her deputy, and acting matron. In 1979, when a young Stanley Hawkins was appointed as a resident registrar in Queen Square, she was particularly welcoming. Claremont Street Hospital closed in 1986. At its peak, it had only about 50 beds.

Matron Ling being granted the position of Honorary Governor of CSH in 1963

Other Belfast neurologists, including Harold Millar, Michael Swallow, Lewis (Louis) J Hurwitz and Jo Lyttle trained in Queen Square in the 1950's and 1960's

1. Allison RS. The Surgeon Probationers. Belfast: *Blackstaff Press Ltd*. 1979.
2. Allison RS. The senile brain. London: *Edward Arnold*; 1962.
3. Hawkins SA. The History of Neurology in Belfast: The first hundred years: Presidential Address to the Ulster Medical Society; 2005. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1891788/

Front Cover Explained

For this editions front cover I have selected images of MSc and Diploma students over the past four years, generally from end of year class photographs, working chronologically as you move down the page from 2008/09 to 2011/12. In my role, the people I have the most contact with are the MSc students, and I have a great affection for so many of them. One of the most interesting aspects of dealing with postgraduate students at Queen Square is the chance to meet people from all over the world, with all the benefits and challenges that represents. I have gained much from knowing these students and would like to pay tribute to them all for helping make Queen Square what it is today. I have been fortunate to become friends with many of them, and have met some truly exceptional people over the years. It is difficult to single out individuals when I have met so many great people, but there have been some, that through their enthusiasm and dedication, have made a lasting impression, both on myself and others at Queen Square.

Dr Philip Glass Andrade was truly exceptional. Through his constant organising of events and enthusiasm for both personal and academic matters he enriched the lives of all those who were fortunate to be around him during his year in London. From surprise birthday parties, to arranging a weekend away in Canterbury for Clinical Neurology students, to producing a year book and designing Queen Square football shirts, his contribution to everyone's social life is without equal. He was also an exceptional student, and found time to contribute to the course, along with Dr Martin Grecco, Dr Tom Pollak and Dr Laura Moriyama by producing an instructional video, available to view on Youtube https://www.youtube.com/watch?v=ydzJPb_wdfM.

We were also very fortunate to have Dr Zeid Yasiry and Dr Suraj Rajan on the MSc Clinical Neurology Course last year (2011/12). As with Philip, both added to life at Queen Square, and both contributed hugely to the course as a whole, through the production of a student handbook.

The handbook is available online at
http://www.ucl.ac.uk/ion/education/courses/mscclinicalneurology/studenthandbook