How would you like an all-expenses-paid trip to the London Olympic Games? For most of us, it’s a no-brainer, but what if it came with long hours, no pay, shared accommodation and the responsibility of a nation. Not quite so appealing?

Carolyn Broderick has signed up for exactly that, eyes wide open. She will be playing her part as one of the medical team travelling with the Australian Olympic Team, and not for the first time either.

In 2000, Carolyn marched into Olympic Stadium in Homebush to the Australian national anthem, Andrew Gaze proudly bearing the flag, all decked out in green and gold and in the company of some of Australia’s most prominent athletes. “The experience was amazing and something that I’ll never forget. It was the largest crowd ever at Olympic Park and the noise — overwhelming,” she recalls.

Carolyn has a long history of involvement with national and international sporting teams. She has worked with the Opals, the Australian women’s basketball team, and more recently with the Australian women’s tennis team (The Fed Cup team). But it still came as a surprise when the Australian Olympic Committee (AOC) appointed her to the medical team travelling to this year’s Olympics.

Despite the 12-year gap between the Sydney and London Games, during which time she concentrated on her career and raising a family, Carolyn has forgotten very little of the exhilaration of being a part of the nation’s Olympic team. She is proud to be able to assist young people to compete at a world-class level. “It’s a welcome change of pace from clinical practice. Here you must be all things to all people. You need to be able to do it all. Foremost you need to be a doctor, but you have to be able to cope with psychological issues, dietary issues, manage administrative tasks even down to being a baggage handler. You really need to be a jack of...
all trades,” she laughs.

Asked to name the Olympic legends she has met, Carolyn replies thoughtfully: “As a doctor you need to maintain your professionalism. This means no autograph hunting or stargazing. Having said that, I have met the Williams sisters and many icons of Australian and international athletics. Seeing athletes that you read about in the papers in real life is amazing. Someone famous walks past you and then you turn a corner and there’s another high profile sportsperson.”

One of her stand-out moments from the Sydney Games was, of all things, the Olympic Village food hall. “It was a feast for all the senses,” she explains. “The smells, the colours. Every nation was represented as was their cuisine. A lot of Olympians were in national costume as well. The other thing was that all foods had comprehensive labelling according to the nutritional value.”

Champion basketball player Michelle Timms, summed up life in the Olympic Village as like “living in a caravan park”.

“She really meant the carnival-like atmosphere of people coming and going, conversations at all hours and the general hullabaloo of the Village.”

Carolyn is one of an approximately fourteen-strong medical team. “Olympic medical teams include doctors, physiotherapists, dietitians, psychologists and massage therapists. They are a multi-disciplinary group.” When asked how smaller nations fare by comparison, Carolyn is quick to point out that the IOC ensures there is a well-appointed polyclinic within the Olympic Village open to all. “They are very sophisticated,” she says. There is no such thing as a typical day for the Australian medical team. “The Olympic Village opens about ten days prior to the start of the events and the medical clinic is open from 7.30am to 10pm. Although the clinic officially closes, the team are then on call until it opens again the following day. So it’s a 24/7 operation,” she says. “During competition we treat a lot of the same things that a GP would: coughs, colds, skin infections etc; in addition to musculo-skeletal injury.”

The medical team is constantly on guard against the spread of infection. “It’s a real risk. Accommodation in the Village is communal and it is difficult to isolate anyone who may be carrying, or in the grip of, an infectious disease. The Australian team focus on prevention of infectious disease in the form of immunisation where possible and athletes and officials are vaccinated in advance of the Games. It is definitely the best form of defence.”

Carolyn says the opportunity to see Games events more than makes up for the long hours she has to put in as a team doctor. “Fingers crossed, I’m particularly hoping to catch some tennis and the athletics.” This would be fitting for someone who continues to work to advance women in sports and has an ongoing relationship with The Fed Cup Team.

The hardest part is being away from her family for so long. “The kids were desperate to come with me,” Carolyn admits. “But they are not on school holidays and I’ll be incredibly busy so they’ll remain in Australia.” No doubt they will be like the rest of the nation, glued to their TV sets at odd hours, cheering on our Olympians.

Dr Carolyn Broderick teaches into the exercise physiology program in SoMS. She is also part of an IOC expert panel on age determination in elite adolescent sport. She currently holds the position of Team Physician with the Australian Federation Cup Tennis Team and is Deputy Medical Director at the NSW Institute of Sport. She is staff specialist in paediatric sports medicine at the Children’s Hospital Institute of Sports Medicine (CHISM) at The Children’s Hospital at Westmead.
SAMS Seminar Series Presents

Professor Geoff McCaughan

“The Intrahepatic Niche of the Hedgehog in Chronic Liver Injury”

Director, Faculty and Head, Liver Immunobiology Group
In 1973 Professor McCaughan graduated with first class honors in medicine and then completed a FRACP in Gastroenterology in 1980. His major clinical interests are in liver transplantation, viral hepatitis, and autoimmune hepatitis. Professor McCaughan is head of the Liver Immunology group in the Centenary Institute. Upon completion of his postdoctoral training at the University of Oxford in 1986 as a CJ Martin Fellow, he returned to Sydney where he developed the basic research programme for the AW Morrow Gastroenterology and Liver Centre at Royal Prince Alfred Hospital of which he is now the Director. His current research interests include the immunopathogenesis of human chronic liver disease, liver autoimmunity, liver transplant tolerance and molecular analysis of hepatitis C virus.

Wednesday 15th August

4 - 5pm
Level 4 Lowy Seminar Space
Lowy
Light refreshment served after event
UNSW Physiology students no longer need feel they are facing the challenges of excelling in their studies alone. Undergraduate physiology students around the world have the chance to interact and learn together in the Inter-Medical Schools Physiology Quiz (ISMPQ) hosted each year by the University of Malaya. This year, UNSW will send a team to Kuala Lumpur to compete at the 10th IMSPQ Professor A. Raman Challenge Trophy on August 28-29th. Physiology is a key discipline in undergraduate medical and medical science courses, not only at UNSW, but around the world. The UNSW team will soon pit their wits against the best students from 70 other Medical Schools from neighbouring South-East Asian and Pacific regions, and from as far afield as Africa, Europe, Japan and China.

However the festivities and competition has already started for UNSW Team Physiology. At the local Department of Physiology challenge quiz held in the Biomed Theatres on the 20th June, we held a mini-quiz to select our team. Twenty students who achieved the highest marks in Phase 1 Medicine Physiology courses and in the Physiology 1A and 1B courses, along with their friends and families, were invited to compete for one of four student places in the team. It was a fun and relaxed event (well…maybe not so relaxing for the students!) that was followed by wine and nibbles and the chance for students, staff and supporters to get to know each other. After a close competition, the four students chosen to represent UNSW Physiology were: Amy Lai (Medicine), Arty Selvanathan (Medicine), Dennis Cheung (Med Sci) and Jackie Lai (Medicine). Congratulations to these four students, and to all the students who were invited to the challenge quiz. The student team will be accompanied by Physiology
staff members Andrew Moorhouse and Fiona Wilson.

The IMSPQ gets bigger and bigger each year. When UNSW 1st sent a team in 2008 there were 38 teams, and we achieved an excellent result (2nd place!). In 2010 we sent a team again and, although we qualified for the final knockout playoff rounds in 6th place (out of 47 teams), we valiantly fell short and were knocked out in our first playoff. This year there are 70 teams, and the pressure gets bigger and bigger. How will team UNSW fare? Can we survive the intense playoff rounds? Can we go even one better than in 2008? One thing that can be assured is that we can proudly join in this international college of Physiologists and appreciate that both students and staff face common challenges and pleasures in the learning and teaching of their discipline. Stay tuned for the results story in September newsletter, or if you can’t wait, keep up to date on the Physiology Quiz UMalaya facebook page!

Participating in this International Quiz requires considerable effort and support. Our participation would not be possible without the generous support of The School of Medical Sciences, The Faculty of Medicine and of UNSW International. Thanks also to the efforts of Dr Lesley Ulman, Dr Nicole Marden and Fiona Wilson from our Physiology teaching unit, and Christine Riordan, for organising the Challenge quiz and our participation in KL. And thanks to our most vocal cheerleader, Head of Department Prof Gary Houseley, and to all the academic staff in Physiology for contributing questions, for acting as judges in the Challenge quiz, and for encouragement and support.

Go Team Physiology and Wish us luck!
Currently there are close to 280,000 people living with dementia in Australia and each week there are 1,600 new case diagnosed. Alzheimer’s Australia, the peak body for people with dementia, estimates that without a medical breakthrough the number of people living with this disease will double within the next decade.

Dr Olivier Piguet is one such person striving for a breakthrough. “The effects of dementia are devastating on the patient and their families. Dementia robs affected individuals of their cognitive abilities and will interfere with their interpersonal relationships,” he says. “Because of the progressive nature of these disorders, these effects are often insidious, slowly eroding the person’s mental capacities. Most common complaints are changes in memory and capacity to remember day to day information, difficulty with different aspects of language (understanding or expression) and reduced ability with complex thinking. Our research has also shown that often the capacity to understand and express emotions is reduced, which has a significant impact on the relationships with partners, family members and loved ones. Not uncommonly, these deficits are accompanied by a loss of insight.”

Born in Geneva Olivier’s interest in neuropsychology led him Australia where he completed his higher degree studies. Success arrived early as young postdoctoral researcher allowing him to spend two years at MIT in Boston investigating the interactions between emotion and memory using brain imaging. But it was back in Australia that his career really took off. Olivier started his own research group at Neuroscience Research Australia (NeuRA). “We are a dedicated team,” he says. “My own research looks at the early clinical markers of frontotemporal dementia and other dementia syndromes using clinical, imaging and post-mortem investigations. My particular interest is in emotion, memory and executive functions.”

It’s not all about the bench for Olivier. His fascination with brain functioning began in his early teens but it was while on clinical placement at a residential care dementia unit that he really understood he was working with people’s quality of life. “I hope that what I do makes a difference in the life and care of dementia patients and also of their families,” he explains. “I try to help them understand what is happening to them...”
and for the families, what to expect for the future.”

There is little doubt that the experiences at the bedside of patients can be profound. It has driven Olivier to want to know not just what happens within the brain of dementia sufferers but also how the disease evolved over time. “If we can understand the development of dementia it may help us with developing the tools to fight back.”

He is philosophical about research. “If this is what you want to do, pick something that you are passionate about. Do not take setback personally and learn to forget quickly about rejected publications and unsuccessful grant applications. Definitely spend time cultivating your sense of humour.”

One thing he thinks that researchers need to push back against is having work creep into all areas of life. “There is nothing like having a six year old child with an enormous curiosity for the world to bring back balance. He knows the important questions to ask. They normally involve Lego,” Olivier laughs.

Olivier had initially thought that he would return to Switzerland after spending time in Australia. Twenty two year later he’s still here and still loves it. He acknowledges that studying in a different language was challenging at the beginning of his higher degree work, other than that Australia has only been a positive. He is settled in Sydney with his partner of seven years, his son and a fluffy black and white cat. His favourite past-time is listening to music. “I have a large collection, 600 LP’s and over 1,000 CD’s,” he says. “My taste in music is pretty eclectic really. My favourites include baroque such as Monteverdi and Purcell; classical, in particular Bach and range through to Frank Zappa, Tom Waits, Miles Davis, The Beatles and rock from the late-70’s.” He goes on to name The Clash, Elvis Costello and Joy Division. “Oh yeah, and I play chess – badly.”

Given the strong evidence that suggests music can unlock memory in Alzheimer patients by accessing deeply felt past events, we can be assured that Olivier won’t be forgetting anything, anytime soon.
10 Things You May Not Know About Ruth Miller

Did you or do you have a nickname, how did this come about? My dad called me “Runner Bean” as a child because I ran really fast and had very long legs. I wasn’t unhappy about this nickname because my older sister was called “Corn flakes” because mum asked her what she’d like for breakfast at the same time dad asked her what she’d like as a nickname!

What’s your earliest memory? One of my earliest memories is roller skating in oversized expandable strap on roller skates on the front driveway in a red vinyl suit (well it was the seventies!)

Use the word future in a sentence. I adore my husband of 21 years, am learning to like roller coasters and look forward to seeing more of the world. In the future I hope that travel can be like the transporter in Star trek so that visiting places or commuting to work can be as simple as a “Beam me up, Scotty”.

Do you have any pets? Yes, my husband and I have a beautiful 10 month old Maltese x Poodle called Archie. His breed name is commonly called “Moodle” but when we first brought him home he was more of a “Maltipoo”. I have put off having a pet for a long time and am now surprisingly smitten by Archie and believe him to be the best, cutest, smartest and most loving dog there is in the world.

Where did you grow up? I spent my childhood years in the town of Milton on the NSW south coast. My father was the Anglican minister of the church in the main street; I was his exuberant middle daughter of three girls. (Yes I do have some middle child hang ups!)

What is your favourite food? Chocolate – milk or dark but not “fake” chocolate (white). I am particularly partial to Club dark mint blocks, Blue or Green Lindt balls and Woolworths brand milk chocolate bullets.

What is your special talent (eg: swimming, cooking etc) I am a patchwork quilter and spend many hours cutting large pieces of fabric into smaller ones which I then rearrange and sew back together into large pieces again. Apparently the mathematics involved in quilting wards off alzheimers? This is a good hobby because I get to be creative while I relax and have something to show for my time off. Many of the quilts I make I give to family and friends.

How do you spend your free time? Along with quilting I like to spend free time building model railroad landscapes and buildings. Our N-scale layout is in the process of transforming from wooden bench structures and track to winding trains along mountain passes, through tunnels, by waterfalls and to small towns. It is a long term project.

What languages can you speak? English is my first language but I am learning Japanese. I am quite proficient at saying “hello”, “how are you” and “sorry please forgive me”.

What do you most enjoy about your profession? It is a wonderful thing to be a teacher as you have an opportunity to influence the lives of the people you educate, hopefully for the better. I try to remember that a teacher’s words can be long held onto by a student and hope to make mine words which encourage, affirm and inspire them to be their best. These days my teaching is centred around the Museum and I am enjoying immensely the opportunity to work in the Tertiary environment with a fabulous boss and an outstanding group of colleagues.
Muireann Irish is a postdoctoral researcher at NeuRA and a conjoint lecturer in SOMS. This study was the first to demonstrate that the ability to imagine the future relies on general knowledge of the world around us (semantic memory). Semantic dementia patients, who have lost their general conceptual knowledge, were able to retrieve past memories yet showed striking deficits when imagining the future, as severe as those found in patients with Alzheimer’s disease. Analyses of structural brain images revealed that deficits in future thinking in semantic dementia correlated with those brain regions essential for semantic knowledge, whereas in Alzheimer’s disease, future thinking deficits correlated with structures classically associated with memory for one’s past. By demonstrating that patients with semantic dementia are unable to imagine themselves in the future, and highlighting the neural regions underlying these deficits, this paper points towards the fundamental role of semantic knowledge in allowing us to envisage what the future might be like.

S Senadheera, Y Kim, TH Grayson, S Toemoe, MY Kochukov, J Abramowitz, GD Housley, RL Bertrand, PS Chadha, PP Bertrand, TV Murphy, M Tare, L Birnbaumer, SP Marrelli, and SL Sandow

“Transient receptor potential canonical type 3 channels facilitate endothelium-derived hyperpolarization-mediated resistance artery vasodilator activity”. Cardiovascular Research, doi: 10.1093/cvr/cvs208

This is Sev’s 1st first author paper from her PhD work, and is the first demonstration of a signalling complex for communication between the arterial endothelium and smooth muscle, thus being an important feature for the control of vascular tone and blood flow. It was a collaboration between our group, and that of Housley’s, Bertrand’s, Birnbaumer from NIH, Marrelli from Baylor College and Marianne Tare from Monash.
Taking On New Challenges

Gilles Guillemin has been elected the new president of the International Neurotoxicity Society ("NTS"). The aim of the Society is to unite basic and clinical scientists in the Neurotoxicity field. NTS is committed to fostering scientific interaction directed towards increasing understanding of processes, mechanisms and outcomes of neurodegeneration, nerve degeneration, neuroprotection, neurotrophin actions, and the associated role of glia and other satellite cells.

Congratulations Gilles.

Promoting Success

It is always a pleasure to be able to inform you of the successes of your SoMS friends and colleagues and never more so than when we are able to advise of academic promotion. We are delighted to congratulate -

- Thomas Fath
- Trevor Lewis
- Fabio Luciani
- Gila Moalem-Taylor
- Renee Morris

on promotion to Senior Lecturer.

Save The Date

The Research Students Information Evening is being held on the 31st August 2012. The timing and venue for the event is 5-8pm Level 4, Lowy Cancer Research Centre.

Students interested in Higher Degree studies in medical sciences are invited to attend an information night.

This 'one-stop-shop' will be a great opportunity to meet with potential students to find out more about Honours, Masters and PhD projects on offer in the School of Medical Sciences, Neuroscience Research Australia and Lowy Cancer Research Centre.

Delivering The Opening Address

Rakesh Kumar has long been a supporter of the role of the university library in the academic enterprise. This led to an invitation in June 2012, to deliver the opening plenary address at the 33rd annual conference of the International Association of Scientific and Technological University Libraries, which this year had the theme of "Library strategies for new generation users." The conference was held at Nanyang Technological University, Singapore, and was attended by over 150 senior librarians from 30 different countries. A video of the talk is available at http://new.livestream.com/NTU/iatul2012/videos/1302835.
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