



Australia's
Global
University

St Vincent's Clinical School 2016 Annual Report

Australia's Global University

Faculty of Medicine

St Vincent's Clinical School



The Clinical School would like to acknowledge and honour the Aboriginal Elders of the Gadigal People of the Eora Nation, those who once lived here and first walked this land and to their descendants who maintain these spiritual connections and traditions. We acknowledge that the Gadigal people occupied and cared for this land over countless generations and we celebrate their continuing contribution to the life of this region.

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Cover Images: Year 6 Graduating
Class(top); UNSW Conjoins (bottom)

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Professor Allan Spigelman
Head of Surgery

INTRODUCTION

"The only thing that is constant is change". Thus spoke Heraclitus of Ephesus.

Even the most casual observer will have noticed the increasingly turbulent times that we live in – with change and uncertainty occurring in the political, health and education arenas over the past few years. The distribution is wide - from the macro international scene to the micro local hospital and university environments.

Fortunately, these changes have not, to date, led to a reduction in our ability to deliver high quality medical education, to produce outstanding research and in so doing to ensure that care is provided to most patients to the highest of standards.

That this remains so is a tribute to you – the readers of this Annual Report. It is you who have helped UNSW, the St Vincent's campus in its generality, the Garvan Institute of Medical Research and the Victor Chang Cardiac Research Institute deliver in these critical areas.

Thank you on behalf of UNSW for your efforts this past year.

Thank you also in a personal sense, for your strong support of the UNSW St Vincent's Clinical School these past 9 years, while I was Head of School. Please join me in wishing Jerry Greenfield all the best as he takes over this role, in these particularly challenging, changing times.



Dr Rohan Gett

FROM THE DIRECTOR OF MEDICAL STUDENT EDUCATION

Two thousand and sixteen has been another hectic, busy and exciting year at St Vincent's Clinical School. We have tutored 400 students in the last twelve months with 139 Phase 1 students, 47 Phase 2 and 76 Phase 3 students in our undergraduate curriculum. They have been taught medicine and surgery throughout the campus in bedside tutorials, small seminar groups and lectures. They have widely participated in all aspects of patient care at St Vincent's Hospital and St Vincent's Clinic.

We have hosted 29 Independent Learning Program (ILP) research students, 39 elective students, 46 students in a clinical transition program moving from the university to the wards and 43 young doctors in the preparation for internship program (PRINT). Exams and assessments have included Objective Structured Clinical Examinations (OSCE) for the first and second years, Integrated Clinical Exams (ICE) for the third and fourth years and Clinical, Oral and Portfolio examinations for our senior students.

These clinical programs have been smoothly coordinated by our two new staff members Ms Alison Cullen and Ms Leanne McQuiston. They have ably replaced our two longstanding colleagues: Ms Julee Pope and Ms Naomi Esselbrugge. Naomi continues her leave for now but we do hope to see her back soon.

Other highlights of the year include a resounding win to Dr Mark Danta's Marauders, the slick and highly skilled soccer team which accounted for the medical students 5-2 on Sydney Grammar's fields in June. We also hosted the Sydney Grammar students themselves for a tour of the Clinical School allowing those students interested in studying medicine to get a taste of university life.

In my first year as Director of Medical Student Education, I wish to thank all our staff for their work in bringing our coursework to the students throughout 2016. In addition to Alison and Leanne, this also includes Ms Melinda Gamulin, Ms Cassandra Shearer, Ms Thuy Huynh and Ms Stacey Emerson. It's never easy bringing complex programs together and coordinating a large number of students and conjoint staff but overall it has been another successful year at the Clinical School. We look forward to 2017.

Rohan Gett

THE SCHOOL &
UNIVERSITY



FACULTY & UNIVERSITY NEWS

Professor Terry Campbell
Deputy Dean

2016 has been a very big year, both for St Vincent's Clinical School and for the Faculty of Medicine and UNSW in general. It marks the first full year in post for both our new Dean of Medicine, Professor Rodney Phillips and our new Vice Chancellor, Professor Ian Jacobs. During this time the visions of both these new leaders for the future of UNSW in general and medicine in particular has become much clearer and a number of fundamental changes are in play at present. The Faculty's approach to research strategy has moved from being more or less school- and research centre-based, to being theme-based, with the initial themes being designated as Cancer, Infection Immunity and Inflammation and Mental Health/ Neuroscience (known as "Mindgardens"). An additional fourth broader theme, "Non-communicable Disease", is also under development. Funding and approval has been sought and granted by the University for half-time salaries and some operating budget, for Theme Leaders for the first three of these posts. They are Professor Michael Barton for Cancer, Professor Tony Kelleher for Infection Immunity and Inflammation and Professor Michael Farrell for Mindgardens.

Separately, the Dean has moved to more closely integrate the work being done by the various clinical schools which have traditionally tended to do their own thing in their own geographical region. He has started this process with the appointment of Professor William Ledger (Professor of Obstetrics and Gynaecology at the Royal Hospital for Women), to the new post of Senior Vice Dean (Clinical). Bill Ledger is charged with convening the Heads of the various Clinical Schools in regular meetings, the main focus of which in the first year or two will be to develop a vision for working more closely together. You can expect to hear more on that in next year's report. The new Vice Chancellor has placed much emphasis on our global reputation and our global engagement and a number of initiatives are underway with various international partners including the University of Arizona in Phoenix, Kings College London and two Universities in Uganda. We are also engaging very closely with China in terms of an international knowledge translation exercise entitled TORCH. Further information on much of this can be gleaned from the University's website.

Closer to home, there have been major changes within the St Vincent's Clinical School as well. Professor Allan Spigelman finished his term as Clinical Associate Dean, and I would like to take this opportunity to thank him sincerely for the work he has done during his time in that role. Professor Jerry Greenfield has been appointed as the new Clinical Associate Dean and has only been in post a couple of months. He and I have met on a number of occasions and Professor Spigelman has aided enormously in ensuring a smooth transition, for which we are both very grateful.

In keeping with the expressed desire of the new Vice Chancellor to significantly lift our research game as a University in the global arena, major reviews are being undertaken at present in terms of the research and teaching contributions being made by our academic staff and the contributions being made by our professional and technical staff. To this end, interviews are being held with all individual staff members within the clinical school. This process is happening everywhere across UNSW and is very much a work-in-progress. I expect there will be far more to say about this in next year's report. It is certainly an interesting and challenging time at UNSW at present. While this can always be painted as a threatening experience, I think it is much more to be seen as an exciting series of opportunities, some of which will be very positive, and possibly some not so. Only time will tell. I urge you all to take part in the changes that are happening and strive to work for the best outcomes for all of us.



ADMINISTRATION UPDATE

Melinda Gamulin
Clinical School Manager

2016 has been another busy year for the St Vincent's Clinical School and I would like to thank my administrative team on another successful year together.

There have been a few staff movements that have happened, such as in late February Ms Naomi Esselbrugge, Student Administration Officer, went on maternity leave and gave birth to a beautiful little boy named Eli. Naomi was replaced by Ms Alison Cullen in March. Alison has worked previously as the UniBreak Program Manager with Antipodeans Abroad, Sydney and as an Operations Manager with Work the World in the UK.

In June, Ms Julie Pope, Student Administration Assistant, left to move to Boston, USA, and was replaced by Ms Leanne McQuiston. Leanne has worked previously with A/Prof Nadine Ezard as an Administrative Officer, Dept of Drug and Alcohol.

In July, Ms Stacey Emerson joined the School as the Administration Assistant, Dept of Medicine and will be looking after the School Postgraduate Administration and SVH Medical Grand Rounds. Stacey has previously worked as an Administrative Officer at Notre Dame University, School of Nursing.

It is with regret that we farewell A/Professor Eva Segelov from the School at the end of this year. Eva leaves the School after 12 years of service to take up a role of Professor, Director of Oncology at Monash Medical Centre, Monash University. Eva commenced with the School as a Senior Lecturer in Medicine and Director of Medical Student Education in 2004 and was quickly promoted to Associate Professor in 2007. Eva has held other roles with UNSW Medicine such as Director of Conjoint Liaison in 2007 (0.5FTE) until 2013 after which she returned to the School as a Full-Time Academic. We wish Eva all the very best in her new role.

The tutor gift this year is a UNSW USB.
I hope you enjoy this year's gifts as a thank you from our School.

The School could not function without the support of Conjoint staff, St Vincents Hospital, the Faculty of Medicine, UNSW, the local community and the patient population and, of course, our student body. We value the contribution of these individuals and groups and look forward to their ongoing support next year.



AWARDS & ACKNOWLEDGEMENTS

2016 QUEEN'S BIRTHDAY HONOURS

- **Dr Bernadette Tobin AO**

For distinguished service to education and philosophy, to the development of bioethics in Australia as an academic, and as a leader of a range of public health advisory and research councils.

- **Associate Professor Brett Courtenay OAM**

For service to orthopaedic medicine, and to medical education.

2016 CLINICAL SCHOOL TUTORS OF THE YEAR

Consultant Tutor of the Year (SVC/SVPH) – Dr Rohan Gett

Consultant Tutor of the Year (SVH) – A/Prof Graham Jones

Registrar Tutor of the Year – Dr Emily Sutherland and Dr Kris Ma

RMO Tutor of the Year – Dr Samantha Saling

JMO Tutors of the Year – Dr Andy Casey



Dr Emily Sutherland and Prof Rodney Phillips

2016 STUDENT AWARDS

St Vincent's Clinical School Prize (Best performance in the Phase 3 Integrated Clinical Examination in clinical disciplines (Medicine, Surgery and Emergency) for students based at St Vincent's Clinical School) - Ashleigh Xie

Doug Tracy Prize for Surgery (Best performance in Surgery based on course results and the Phase 3 Integrated Clinical Examination) - Jia Li Lee

John Hickie Prize for Medicine (Best performance in Medicine based on course results and the Phase 3 Integrated Clinical Examination) - Jia Li Lee

Independent Learning Project/Honours Grand Rounds Presentation - Timothy Bemand

Best presentation at the 2016 ILP/Honours Grand Rounds - Timothy Bemand

Dr Michael Armstrong Prize - Ashleigh Xie

Dr Michael Armstrong Prize (high commendation) - Vanessa Chen

Student Researcher of the Year Award - Timothy Bemand

Student Researcher of the Year Award (high commendation) - Mitchell Fung and Samuel Baumgart



Ashleigh Xie and Prof Terry Campbell



Tim Bemand

2016 CLINICAL SCHOOL STAFF AWARDS

Publication Prize: A/Prof Mark Danta

Research Prize: Prof Ric Day

Community Service Prize: Dr Anthony Chambers

2016 SENIOR AUSTRALIAN OF THE YEAR

A/Prof Gordian Fulde

Congratulations to A/Prof Fulde on this prestigious award.

As the Director of Emergency of one of the country's busiest emergency departments, St Vincent's Hospital, and with a varied and impressive medical career prior, the award recognises his contribution to emergency care.



Prof Ric Day and Prof Rodney Phillips

IN MEMORIAM

Emeritus Professor John Hickie AO passed away on 12th September after a lengthy illness.

Emeritus Professor Hickie had a long and distinguished career with UNSW and St Vincent's Hospital. He completed his undergraduate clinical training at St Vincent's, graduating in Medicine from the University of Sydney in 1948. Following postgraduate training in Australia and the UK, he returned to St Vincent's where he served during his long career in a number of roles including playing a major role in establishing St Vincent's Cardiovascular Unit.

In 1968, when St Vincent's switched from being a teaching hospital of the University of Sydney to the new Medical School at UNSW, he was appointed Foundation Professor of Medicine, a post he held until he retired in 1990. During this time, he had a distinguished career in Cardiology and in General Medicine and was an exceptional and very dedicated teacher of our students. He continued to practice in St Vincent's Private Hospital and Clinic for some years after retiring from the Public Hospital and maintained a keen interest in all matters academic.

Emeritus Professor Hickie served in many leadership roles including Director of Cardiology at St Vincent's, President of the Cardiac Society of Australia and New Zealand and President of the Royal Australasian College of Physicians. He was one of the first Australians to be elected a Fellow of the American College of Cardiology and was well known internationally in the field.



Emeritus Professor John Hickie AO

EVENTS

2016 DOCTORS VS STUDENTS

SOCCER MATCH



On a cold, wet & windy morning on Thursday 9th June our annual Doctors v Students soccer match was held at Weigall Oval, Sydney Grammar's sporting field.

The Doctors were keen to repeat last year's victory and had recruited well during the off season. Play went from end to end with some tight defence and outstanding saves by both goalkeepers.

The first goal was scored by the students with a fantastic corner laid on for Richard Chatoor to score a perfect header (Tim Cahill would have been proud). The keeper had little chance of saving it. Score 1-0

Not long afterwards, referee Stephen Sheldon awarded a penalty to the students as the keeper of the doctors team picked up the ball from a pass back. The spot kick was taken by Aiden McLachlan who made no mistake and the students were off to a great start being up 2-0.

With 20 mins of play remaining in the first half the doctors needed to score, and with some great attack on the left side the students were caught short on numbers, a brilliant cross by Rohan Gett and the doctors managed to score.

Within minutes of the last goal from the Doctors, the student's keeper fumbled the ball and Elias Moisisdis scored. Score at half time 2-2.



With the half time team talk lead by Captain Mark Danta and Co-Captain Rohan Gett the Doctors came out firing with Simon Donaldson beating 4 players to score a brilliant goal to put the team in the lead 3-2.

With only 5 minutes of play left the doctor's team scored another 2 goals. The doctors ran out winners 5-2 to record their 3rd win since the inception of the annual challenge.

A big thank you to Sydney Grammar School for the use of their Oval again this year and also their BBQ facilities. Staff and students appreciated the efforts of the School Administrative staff in preparing the after match nourishments.

Special mention goes to Bob Morris from SVH Transport Department but no major assistance was needed this year and also special thanks to Stephen Sheldon for refereeing the match.

Scorers: Doctors – Simon Donaldson 2, Elias Moisisdis 2, Tom Crofts 1

Scorers: Students – Richard Chatoor 1, Aiden McLachlan 1

Cassie Shearer



Samuel Baumgart, Ashleigh Xie and Mitchell Fung



Prof Terry Campbell and Diane Armstrong

ANNUAL CONJOINT APPOINTEE & CLINICAL SCHOOL DRINKS

Instead of a dinner this year, we combined our School end of year function and conjoint dinner into a drinks and canapés affair on Monday 12th December from 6pm to 8.30pm at the Kinghorn Cancer Centre, Professor John Shine Room.

This is arranged annually to promote the commitment to medical education on the SVH Campus and ongoing program of medical student teaching and research in St Vincent's Public and Private Hospitals and St Vincent's Clinic. Special guest speakers for the night were Professor Rodney Phillips (Dean, Faculty of Medicine, UNSW) and Professor Jerry Greenfield (Clinical Associate Dean, UNSW). Thank you to everyone who attended.



Prof Jacob Sevastos, Prof Jerry Greenfield, A/Prof Graham Jones and Dr Rohan Gett



ST VINCENT'S HOSPITAL

Conjoint A/Prof Anthony Schembri
Chief Executive Officer
St Vincent's Health Network Sydney

As CEO of St Vincent's Health Network Sydney and Conjoint Appointee of UNSW Clinical School, it is again a privilege to reflect on all that has been achieved in the past twelve months and acknowledge our relationship with UNSW in driving many of these achievements.

Across all our major areas of clinical endeavour, the St Vincent's Campus is embracing innovation and achieving improved patient outcomes. This is timely given that we have embarked upon a major Campus master planning for the St Vincent's Integrated Healthcare and Research Campus, which explores not only our building needs for the coming decades, but examines where we want to concentrate our clinical expertise and centres of excellence. Central to this decision-making is the potential to further grow our teaching and research endeavours.

The last twelve months marked several major historical milestones for the Darlinghurst Campus, as well as a period of significant medical breakthroughs.

The St Vincent's Lung Transplant team performed their first successful transplant internationally using OCS (organ care system) or 'lungs in a box' to transplant lungs from a marginal donor. This new technology allows previously unusable organs to be safely resuscitated post retrieval and revitalised in an external environment before transplantation.

As part of an international trial, our cardiology team also successfully performed one of the world's first implants of the MVAD Pump, a miniature artificial device which is a third of the size of the currently available device, resulting in a reduction in surgical trauma and improved quality of life for our patients.

The transplant team also pioneered a procedure to bring better patient outcomes to those with cardiovascular conditions, whereby they no longer need to stop a patient's heart from beating in order to repair or replace defective aortic valves. This new method is a much less invasive, far better tolerated procedure for patients who are particularly unwell, thereby increasing the number of patients who are now eligible for this kind of surgery.

St Vincent's was recognised at the 2016 Mental Health Matters Awards as well as the 2016 NSW Health Awards in the Provision of Mental Health Services for our Psychogeriatric SOS: e-Outreach for rural Australia by clinicians for clinicians Project. This important project uses an innovative model of service to improve the delivery of care for vulnerable communities.

At the 2016 St Vincent's Health Australia (SVHA) Innovation and Excellence Awards held in September in Brisbane, St Vincent's Health Network Sydney took out 6 out of 10 awards at the event, including the prestigious Chairman's Award.

The Award winning projects cover a vast cross-section of our endeavors from a web-based portal for our cardiac patients to better understand their conditions and their treatment programs through to a new clinician-to-clinician service bringing multidisciplinary expertise via web-conferencing to isolated clinicians in under-resourced rural areas, all of the projects embody innovative approaches to respond to community need and most of them were led by conjoint UNSW St Vincent's clinicians.

St Vincent's is embarking upon a major Campus master planning project capped off with the NSW Government granting St Vincent's with \$5 million in seed funding to undertake comprehensive planning for the St Vincent's Integrated Healthcare and Research Campus. The plans will address how both our public and private hospitals will meet growth in service needs in a more effective way through integrating our services, providing better treatment of chronic diseases and promoting campus-wide research and teaching.

The funding will enable St Vincent's and our research partners to work up plans around five key priority areas - the creation of an Integrated Care Centre; establishing Australia's first Heart Lung Vascular Institute; strengthening services for vulnerable populations in inner Sydney; expanding translational research and education; and increasing service capabilities within the campus. UNSW are a major partner with whom we are canvassing ideas to develop the most effective master plan that will best serve our community well into the future.

St Vincent's has been at the forefront of HIV care for over 30 years and during this time, has worked closely with researchers from UNSW's Kirby Institute as world leaders in clinical research into HIV AIDS, as well as other infectious diseases. To that end, late last year we proudly opened the new Translational Research Centre.

The Centre will serve as a translational research centre where Kirby Institute staff will interface with St Vincent's clinicians, including specialty HIV inpatient and ambulatory services conducting several multi-centred clinical research projects.

On World AIDS Day last year, St Vincent's announced an agreement with Sydney Local Health District, to safeguard the long-term survival of the state-wide short-term supported accommodation service for people living with HIV who have complex health needs such as homelessness, drug and alcohol, and mental health issues. Following its closure in Stanmore, Stanford House has been re-opened here at St Vincent's with increased capacity and outreach services for clients and past residents.

In October, we opened the St Vincent's Clinical Genomics Unit as a joint venture between St Vincent's and the Garvan Institute. The Centre will use whole genome sequencing to diagnose rare, undiagnosed and misdiagnosed disease and in doing so make a huge difference to tackling the burden of disease in the Australian community.

While this report highlights a diverse range of achievements and strategies, it is demonstrative of our approach to responding to community need. We carry this commitment forward as our founders, the Sisters of Charity did before us – seeing, serving and striving for something greater. As our students step into the spotlight and we pass on the baton to our new recruits, we know they will continue the Sister's legacy of compassion, excellence and integrity in their daily endeavours. And of course, we wouldn't be in such a strong position without the peerless support and partnership of the University and the ongoing commitment for our clinical academics and conjoint appointees to our teaching and research endeavours.



Ms Anne Fallon, Manager, Education Training & Development

ST VINCENT'S CLINIC & ST VINCENT'S PRIVATE HOSPITAL



Ms Michelle Wilson
St Vincent's Clinic Executive Director

St Vincent's Private Hospital and St Vincent's Clinic are proud to continue their long standing involvement with the UNSW Clinical School by providing an opportunity for medical students to gain experience in the private sector.

We recognise the importance of building clinical capacity and the following activities were achieved in 2016,

- Phase 3 medical students undertook placements in the Operating Suite, Day Surgery, the Patient Care Areas and a two day placement in the Pre Admission Centre
- Students gained experience in the private rooms of the VMOs in St Vincent's Clinic.

- 30 students were allocated to Pre Admission providing them with a total of 60 CPD.
- In the Pre admission centre the students completed a medical and patient histories as well as sitting in with the anaesthetist for pre hospital admission anaesthetic assessments. Students also experienced the documentation process using the deLacy system.

In 2016 the case presentations were of a high standard and well attended. The presentations covered a full range of topics including plastic surgery, lower GI, upper GI, surgical oncology, urology, vascular surgery, orthopaedics, cardiothoracic ENT, Hand and Neurosurgery.

During 2016 UNSW Medical students and their fellow medical and nursing student colleagues from Notre Dame University and other partner universities, participated in many of the interprofessional teaching and learning activities on offer in St Vincent's Private Hospital Sydney, St Vincent's Clinic and UNSW Clinical School.

The St Vincent's Clinic Foundation awarded \$500 for the best student's Independent Learning Project. The 2015 winners of the Independent Learning Project/Honours prize were Jesse Ende and Ananya Chakravorty. Jesse's project: "Environmental responses of virally infected respiratory epithelial cells" was supervised by Professor Richard Harvey. Ananya's project: "The

accuracy of PSR and rCBV derived from DSC MR imaging in the preoperative diagnosis of cerebral tumours: a dual-centred prospective pilot study” was supervised by Dr Tim Steel. St Vincent’s Private Hospital Sydney and St Vincent’s Clinic 2015 Tutor of the Year was awarded to Dr Rohan Gett.

We continue to explore strategies to increase teaching opportunities within St Vincent’s Private Hospital Sydney and St Vincent’s Clinic to complement student teaching and learning in public facilities.

St Vincent’s Private Hospital Sydney and St Vincent’s Clinic are proud to be actively involved with UNSW Faculty of Medicine and will continue to develop a leadership role in medical student teaching and learning in the private sector.

COMMUNITY PROJECTS

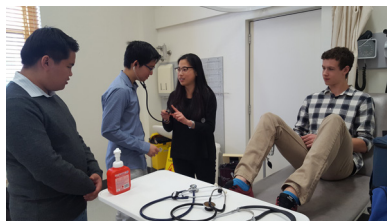
SYDNEY GRAMMAR VISIT

On the 6th of October a group of year 12 pupils from Sydney Grammar School visited St Vincent’s to learn from the med students and educators about what it’s like to work (and study) at a hospital. After an introduction by Professor Allan Spigelman and Dr Rohan Gett, we began a meet-and-greet with some fifth year med students. They seemed to be enjoying themselves, especially given the fact that many were soon leaving to such exotic lands as Rome and the Bahamas, presumably to practise medicine—but from the looks on their faces it seems they were excited for more than just that! Then it was our turn to get excited; we learned how to test reflexes with a rubber hammer, hearing with a tuning fork, and most importantly of all, blood pressure with a stethoscope. Next was a demo on how to put on a plaster cast—we all successfully shocked our parents with unexplained photos of our “broken arms”.

Later, we went to the ER, under the guidance of Dr Paul Preisz (Senior Staff Specialist), who told us terrible stories and generally persuaded us (well, me at least) that emergency medicine was not for the faint of heart. An experience to say the least.

A career in medicine seems to me as exciting and meaningful as I hoped. Now, I can say the same for a medicine degree. Our thanks must be extended to the team at St Vincent’s and to our coordinator Ms Rita Fin for organising the trip.

Jason Chami - Sydney Grammar Student



PHASE 3 (YEAR 6) STUDENTS

The start of our final year of medical school began like I imagine it has for so many students before us – regaling each other with tales of our inspirational electives, eager to share the unique experiences and newfound enlightenments of our adventures. Many travelled far across the globe, some stayed closer to home. Regardless, we all had some good stories to share.

We dove head first into our respective terms, attempting to recapture the carefree glory days of 5th year. Yet the looming prospect of passing our final exams got to even our staunchest partygoers and beach bohemians. Countdowns began, study groups assembled and we returned to libraries and cafés across the city. When our wallets were depleted (seriously, how much can smashed avo really cost?) we made good use of the new coffee machine in the common room, an appropriate gift from the leaving class of 2015.



But that was not the only gift that they gave us, with several coming back to spend their precious free time teaching and preparing us for our final exams. A special shout-out to Dr Andy Casey for his numerous viva tutorials that put us all in good stead for our finals. We would also like to thank the many other interns, registrars and consultants for their amazing tutorials and invaluable advice throughout our final two years.

However it wasn't all fun and games... well, except when we took the day off to play against our mentors in the annual Doctors vs Students soccer match. It was a day to remember – I remember the sun shining, the students' amazing cheer squad, the delicious sausage sizzle. The only thing I can't seem to recall was the score. I'm sure it wasn't important.

Exams approached rapidly and then quickly faded into distant memories, as they always do. With the newly discovered concept of "free time" we celebrated with weekly activities including bouldering, trampolining and lawn bowls, all culminating in a rowdy night at the Fitzroy Hotel for our 6th year dinner and drinks.

Amongst all the festivities we did not forget about our junior colleagues. We ran tutorials and mock Biomed sessions for the 5th years, mentored CTC students and bedside teaching for the Phase 1 students.

The smooth operation of our final year would not have been possible without the assistance of a few special people. Firstly our 6th year representative, Rupert Higgins has been a great advocate for the our year group. Lastly, but most importantly are the amazing ladies who run our clinical school. We would like to thank Julee and Naomi for their invaluable contributions to the UNSW St Vincent's Clinical School. Taking their place, we welcomed the lovely Alison and Leanne, who have done a stellar job taking over the reins this year. They were always there to ensure our tutorials ran without a hitch; to help solve our problems; or even just to listen to how our day had been – always with a smile.

We wish all the best to the future students of St Vincent's Clinical School. Hopefully they live up to our lofty standards!

Sam, Ness & Rupert



PHASE 3 (YEAR 5) STUDENTS

January of 2016 saw our cohort commencing fifth year bright-eyed and bushy-tailed, with our Little Bishop coffee cards at the ready. We were excited to begin Phase 3, aware that it was the beginning of the final chapter of our medical student careers. From the very beginning, we noticed how different our hospital experience would be this year compared to earlier years. We were expected to attend early morning ward rounds (including 8 weeks of 7am surgery rounds...grateful that's behind us), write in notes, examine patients (all by ourselves!) and torment cooperative patients while learning to cannulate. Over the year, these experiences helped us develop a sense of confidence on the wards and being a more active part of the team helped us feel like we were actually contributing to patient care.

Some particular highlights of the year included the annual Doctors v Students soccer match, where after a gruelling 90 minutes, the students were brutally robbed of their title but not their spirit – we'll be back next year with a vengeance! Some of us were also fortunate to be involved in a visit from students from Sydney Grammar School. This was a fun afternoon filled with hands-on activities such as plastering and a tour of the illustrious St Vincent's ED.

Some of the most enjoyable memories from fifth year came with our rural placements, where we completed four-week rotations at one of the rural clinical schools. For many, this was a step outside of the comfortable Vinnie's bubble (Wagga Wagga's flagship Messina store doesn't quite live up to our Darlinghurst HQ, nor does it exist), however all returned with a newfound appreciation for rural medicine and fond memories from their time away.

In preparation for our biomedical examination, the weekly case tutorials from hospital tutors and the mock vivas run by the sixth year students were invaluable in helping us tackle this challenging year. We'd like to thank all of the tutors and older students for their mentoring, as well as the best admin staff/hospital mums ever, Alison and Leanne. We would never have gotten through this year without the ongoing support they have provided us with.

All in all, fifth year has been both challenging and rewarding. We can't wait to be back at St Vincent's next year as top dogs of the student body. Bring it on!

Simone Chin

PHASE 2

STUDENTS

For the coursework students of 2016, Phase Two at St Vincent's hospital has been a ball to say the least. On our first morning, we arrived an hour early and overdressed to compensate for the two years' worth of lectures we had left by Cronulla beach during the summer holidays. Needless to say, after a year of tripping over our toes in deLacy Building and finding our feet on the wards, we are no longer an hour early and nor do we dress to impress. Rather, St Vincent's Hospital has taught what books cannot teach.

Each doctor and nurse who gave us their time and their talent taught us that medicine is as much a science as it is an art. In particular, our clinical tutors showed us that for all the meticulousness of medicine, the details of disease it demands and the complexities of clinical practice that exist, there is magic in simply caring for a patient and there are wishes that compassion can grant that no drugs can ever hope to offer. Each patient who gave us their story stands in our memories, not for their clinical signs and symptoms, but for the humanity they breathed into the cold bony frameworks of illness and disease we moulded out of textbooks.

There is suffering in hospitals, no doubt, but this year we have been privileged and honoured to have been inspired by our patients. They are the reason we study and we will not soon forget them. Lastly, we would never have arrived an hour early on that fateful first day had it not been for the staff at St Vincent's Clinical school.



We are sometimes late and occasionally guilty of looking worse for wear, but we hold each pearl of wisdom close to our chest or, to be anatomically precise, our sternum, and we value the dedication and commitment of St Vincent's Clinical School more than words can express.

Specifically, we'd like to thank Alison and Leanne, for being the magicians behind the whole spectacle and for making 2016 unforgettable.

Aidan Tan

PHASE 1 STUDENTS

Tutoring the phase one students has been an enjoyable experience for me, and I hope the phase one students have found the bedside tutorials equally as enjoyable and useful. Clinical tutors play such an important role in the development of clinical skills, especially in phase one when hospital time is so limited.

Starting medical school, it is an exciting, and at times, daunting journey, with a steep learning curve. In this respect the first year of medical school is much like internship year, so I think JMOs make ideal phase one tutors, as we are also at the beginning of a new journey, but medical school remains fresh in our minds. I still remember the nervous anticipation I felt as a first year medical school with my first bedside tutorials looming ahead of me, and I have tried to keep this in mind during my tutorial sessions with the phase one students. The majority of phase one students have no prior experience working in a hospital environment, and may have only ever been in a hospital to visit a sick friend or relative. Hence, the hospital is an unfamiliar environment for the students; navigating the wards, and trying not to get in anyone's way can be difficult at first, and the prospect of taking histories from, and examining real patients can be daunting.

Communicating with hospital patients has a number of challenges that students have not had to deal with during campus skills sessions. Hospital patients may have cognitive impairments, or be from culturally and linguistically diverse backgrounds, or may talk enthusiastically and at great length about their hobbies, or pets, and the phase one students must attempt to use the history taking strategies they have been taught to guide the conversation back to more relevant subjects. I know that I, along with the other tutors, have at times struggled to find appropriate patients for our tutorial sessions. However, I have been impressed with the way students have dealt with some quite complex patients, and used these opportunities to practise and learn, and sought feedback on how to improve their history and examination skills.

It has been rewarding to watch students improve from one session to the next, and slowly become more comfortable in a hospital environment. The phase one students still have four of five more years of medical school ahead of them, but I'm sure they will be amazed at how quickly the time passes, and I wish them all the best for the years ahead.

Rose Crowley, Junior Medical Officer

ELECTIVE STUDENTS

2016 saw 53 National and International students come to St Vincent's for an elective/clerkship attachment in the discipline of their choice. Popular departments included Cardiothoracic Surgery, Upper and Lower GI, Haematology and Cardiology. Yassine Laghrib joined St Vincent's in July 2016 for 6 weeks in Cardiology, and was happy to share his experiences.

"First of all I want to say thank you to all the others who made my elective placement in Sydney possible. Now I can say that Sydney is my second home. I read your emails with a smile and I get the feeling of being back in Sydney again. It was a great experience. I'm recommending to other students to go to St Vincent's Sydney as well. I followed 2 months of cardiology and I had the opportunity to see a lot of technical investigations. I was able to ask a lot of questions and the team was really kind to teach me. My supervisor was really great. She took a lot of time to help me with clinical presentations. The registrars were also very kind. I want to mention Andrew Mamo as well; because he was the best resident I have ever seen" - Yassine Laghrib

As well as receiving elective students, our own home students embark on an exciting elective adventure of their own at the end of Year 5. Liam Clifford's time was well spent at the Papworth Hospital in Cambridgeshire, UK.

"For my overseas elective I went to Papworth Hospital in Cambridge in January 2016. I split my term into 2 rotations; 2 weeks in cardiology, and 2 weeks in thoracic medicine. My time with Dr Begley in cardiology exposed me to various routine procedures including angiography, echocardiography, AF ablation and pacemaker insertion, in addition to regular ward rounds and ECG assessments. Papworth is recognised as a pioneer in cardiothoracic medicine, and I witnessed high-calibre techniques and outcomes during my time, including some very rare procedures. I then completed 2 weeks of respiratory and sleep medicine with Dr Oscroft, which included procedural analysis (ABGs, lung function and CXRs), patient assessments and complex MDT meetings. Sleep medicine is a developing and comprehensive field at Papworth, and I really learnt a lot about how to diagnose and manage various forms of sleep apnoea, something that we don't really cover here in Australia.

Cambridge was a fantastic experience for several reasons. I met with many Cambridge medical students while on placement, and made some great friends. I was able to explore the busy, bustling streets of the city, dine in the great hall of Trinity College, and even cycle the streets of cobblestones while enjoying the beautiful canals. The environment was very student-centred, and being exposed to a place where I knew no one, really forced me to adapt and make new friends, an experience that was enriching and fulfilling. Being able to experience Medicine in a different country is also quite an invaluable opportunity, as you get to witness different protocols and presentations of disease. It is quite challenging, and confronting at times, but also incredibly satisfying and beneficial as a young medical student." - Liam Clifford

INDEPENDENT LEARNING PROJECTS

Project Title: Developing novel tools to explore the genotype-phenotype correlation of TTN truncations in zebra fish models of dilated cardiomyopathy
Supervisors: Dr Inken Martin & Professor Diane Fatkin
Student Name: Timothy Bemand

Truncations of the protein titin (encoded by the gene TTN) are the most common genetic cause of dilated cardiomyopathy. This project aimed to explore the impact of these mutations using novel phenotyping tools in an adult zebra fish model. Zebra fish with heterozygous mutations homologous to human families with titin truncations were studied to assess their impact on cardiac electrical phenotype, exercise capacity and response to mechanical stress. We developed and optimised methodology for performing stress echocardiography on adult zebra fish using a swim tunnel and high-frequency ultrasound, as well as methodology for non-invasive electrocardiography. Our results suggest that titin truncations may impair exercise recovery in a location dependant manner, while there is no consistent impact on electrical phenotype.

Project Title: Investigating the coagulative profile of patients with telangiectatic matting
Supervisor: A/Prof Kurosh Parsi
Student Name: Ian Paver

Investigating whether coagulative disorders are likely to be the cause of Telangiectatic matting by analysis of blood samples with rotational thromboelastometry

Project Title: Acoustic characterisation of the HeartWare device as a novel, non-invasive diagnostic and management technique.
Supervisor: A/Prof Kumud Dhital
Student Name: Milonee Shah

Ventricular assist devices such as the 3rd generation HeartWare (hVAD) device are commonly used in end-stage heart failure patients as a bridging therapy whilst awaiting cardiac transplantation. Despite current investigative and management techniques, adverse events such as post-op infection, pump thrombus and suction and malposition alarms still occur. This project focused on exploring the prospect of acoustic signals as a novel, additional diagnostic technique. Conducted jointly at St Vincent's Hospital Sydney and the Victor Chang Cardiac Research Institute (VCCRI), we used an electronic stethoscope to record implanted patients during outpatient visits, and to

record the pump in a laboratory mock-loop circuit used to simulate various pathologies. The audio data was converted to numerical using Matlab software and then analysed using SPSS Statistics. We found that the native hVAD acoustic signal has a characteristic 5-harmonic peak pattern, and that this shifts upwards in positive linear correlation with increasing pump speed. Simulating suction showed an average of 11.5% increase in overall amplitude of the acoustic signal. Significant correlation was found between power and flow values with increasing speed as well as induction of suction and increasing outflow graft kink. With future research, this technology could be used to allow patients to self-manage in a home environment, recording themselves, saving the data electronically and sending it to their cardiologist for analysis.

At this point, this research has been presented at St Vincent's Hospital and VCCRI Grand Rounds, as well as the VCCRI 17th Annual Symposium where it won 2nd place for the best Undergraduate Student poster. We hope our abstract is accepted for inclusion at the International Symposium for Heart and Lung Transplantation as well as an article in Heart, Lung and Circulation.

Project Title: Optimizing cell harvest from nasal brushings for determining local allergy responses

Supervisor: Prof Richard Harvey

Student Name: Erin Cihat Saricilar

Rhinitis is often a benign and highly common conditions that passes unnoticed and heavily misdiagnosed. With with allergic and non-allergic pathophysiologies, it can be a benign irritation. Highly effective, reproducible, accurate and affordable non-invasive tests need to be performed with minimal discomfort to the patient. The aims of this research was to identify the efficiency and efficacy of various brushes in order to determine their ability to identify nasal rhinitis.

Between a cytology brush (used in cervical screening), dental brush (typically used for cleaning between teeth), and a dedicated Rhinoprobe (specifically for nasal cytology scraping), the cytology brush was the optimal tool for protein collection. Further studies are underway to assess IgE concentration within the total protein content and determine whether it can directly diagnose rhinitis. Total protein content in the nasal mucosa did not significantly show differences between allergic and non-allergic patients.

Project Title: Vitamin D in Airway Epithelium Derived from Chronic Rhinosinusitis Patients

Supervisor: Prof Richard Harvey, A/Prof Janet Rimmer

Student Name: Sophia Ma

This project examined the therapeutic role of Vitamin D3 (VD) in augmenting innate airway epithelial defences. These defences include the physical barrier, mucociliary apparatus and inflammatory mediator release. Primary human sinonasal epithelial cells from patients with eosinophilic chronic rhinosinusitis (eCRS) and healthy controls were cultured in air-liquid-interface, which encouraged ciliogenesis and tight junction formation. These well-differentiated cultures were pre-treated for 24h with VD, and then stimulated by the addition of house dust mite extract. The innate responses were assessed using electrodes for the physical barrier, videos to measure the ciliary beat frequency and biochemical assays for cytokines associated with inflammation. Fifteen tissue samples were included, representing 120 ALI-wells.

We found that topical VD supplementation in eCRS patients may be beneficial to innate epithelial defences. When we compared eCRS and healthy tissue: VD increased the tight junction integrity at 5 minutes and 24 hours after challenge; and also increased cilia beat frequency at 1 hour. Interleukin-6 release was similar between normal and eCRS. VD was non-cytotoxic and did not adversely affect the physical barrier, mucociliary apparatus, or IL-6 release. Further studies should clarify its potential as a therapeutic agent.

Project Title: Predicting Progression to Death in the Pathway of Organ Donation after Circulatory Death
Supervisor: A/Prof Kumud Dhital
Student Name: Max Fulton

Donation after circulatory death (DCD) is an increasingly important source of organs for transplantation. Identifying patients who are likely to be successful DCD donors is important for effective resource management and in the grieving process of relatives of potential donors. The objective of this study was to examine potential donors to attempt to predict progression to cessation of circulation following withdrawal from life-sustaining therapy (WLST).

Logistic regressions were used to identify significant predictors of cessation of circulation at 30, 60 and 90 minutes following WLST. We developed algorithms that predict progression to cessation of circulation at 30, 60 and 90 minutes following WLST with a high degree of confidence. We have also identified a range of pre-morbid variables that can assist clinicians in identifying potential DCD donors. These results have the potential to facilitate improved resource management and care of potential donor's families.

Project Title: Hyponatremia and Falls, Fractures, and Functional Outcomes in Older Patients: Prevalence, Associations, and Management
Supervisor: Dr Danielle Ni Chroinin
Co-supervisor: Dr Sandy Beveridge
Student Name: Jana Valle

Hyponatremia is a very common electrolyte disorder in elderly inpatients and has been shown to be associated with increased morbidity and mortality. Emerging evidence is also linking hyponatremia with an increased risk of adverse functional outcomes, even if chronic or mild; however, these links have yet not been strongly established. Rates of investigation and treatment, and their efficacy, have been found to be low, and not commonly reported.

We conducted a single-centre, retrospective chart review of patients aged 75 years and older admitted to St Vincent's Hospital in the first six weeks of 2015, to any medical specialty or orthopaedics surgery (ortho-geriatrics). We aimed to investigate whether hyponatremia was related to adverse outcomes in elderly inpatients and whether hyponatremia was under-investigated and/or sub-optimally managed. We hypothesized that hyponatremia would be significantly associated with falls, fractures, impaired cognition, poorer functional outcomes, and death, and that investigation and management would be sub-optimal.

Our study found that hyponatremia was not significantly associated with poorer functional outcomes or death in hyponatremic patients, and patients were not more likely to have risk factors or investigations for hyponatremia than non-hyponatremic patients. However, rates of investigation and management of hyponatremia were low and hyponatremia often persisted from admission to discharge, indicating that hyponatremia may require more attention in hospitals, in light of other literature suggesting it is a risk factor for poorer functional outcomes in the elderly.

Project Title: The role of maximum standardized uptake value (SUV max), metabolic tumor volume (MTV) and total lesion glycolysis (TLG) measured on FDG PET/CT in predicting survival in patients with non-small cell lung cancer (NSCLC)
Supervisor: Dr Emily Stone
Student Name: Li Sheng Lim

Background: There are limited validated prognostic markers for lung cancer despite an increase in knowledge of the biology of cancer. Tumor-node-metastasis (TNM) staging remains most important but there is potential for the identification of prognostic information in 2-¹⁸F-fluoro-2-deoxy-D-glucose positron-emission topography-computed tomography (18F-FDG PET/CT). Maximum standardized uptake value (SUV max) is prognostically important, but other quantitative PET scan parameters including metabolic tumor volume (MTV) and total lesion glycolysis (TLG) may provide additional important prognostic information.

Aims: To correlate PET/CT parameters with survival in a retrospective cohort of primary lung cancer cases.

Methods: A retrospective review of cases of primary lung cancer patients who had PET/CT prior to treatment will be performed. SUV max will be recorded in all cases. A smaller test cohort will also have MTV and TLG recorded. Survival data extracted from the Births Deaths and Marriages Registry will be used for correlation.

Discussion: Prognostic biomarkers in primary lung cancer are of immense potential clinical value and this study will conduct a preliminary investigation of quantitative PET/CT methods for this purpose.

Disclosures: Nil relevant

Project Title: Investigating the neuroprotective activities of Carvedilol in idiopathic Parkinson's disease using olfactory-derived patient cells

Supervisor: Dr. Daniel Hesselson

Student Name: Sai Meng Ng

Parkinson's disease is a common neurodegenerative disease but its aetiology is not fully understood. However, it is suggested that mitochondrial dysfunction and oxidative stress are major contributing factors in dopaminergic neuronal death. This project is about testing the neuroprotective properties of the beta-blocker carvedilol on an *in vitro* model of Parkinson's disease. The drug was selected based on favourable outcomes from drug screening performed on PINK1-deficient zebrafish larvae. We first sought to establish the *in vitro* model of PD using human olfactory neurosphere-derived (hONS) cells. The project involves determining if carvedilol protects diseased hONS cells from the mitochondrial stressors rotenone and piericidin A. As an extension of the project, we also investigated if hONS cells can be transfected with the coral-derived fluorescent protein Keima. The Keima protein, when tagged with a mitochondrial-localised signal peptide sequence, is a useful marker of mitophagic activity. If transfection is successful, comparisons between patient and control-derived hONS cells post-exposure to mitochondrial stressors can be made, as well as testing if carvedilol performs the rescue. Further studies also can be undertaken to refine the existing hONS cell model.

Project Title: The impact of an alar base reduction on the nasal airway

Supervisor: Prof Richard Harvey

Co-Supervisor: Dr George Marcells

Student Name: Sai Sumana Gupta

Rhinoplasty is a surgical procedure aiming to create a nose aesthetically pleasing to the patient, without compromising on their nasal function. An alar base reduction (ABR) is a surgical manoeuvre aiming to narrow the base of the nose and reduce nostril flaring. This prospective controlled cohort study assesses ABR and non- ABR (virgin base) rhinoplasty patients to determine the effect this manoeuvre has on the patient's nasal airflow.

Patient-reported outcomes (PROMs) and nasal airway analysis were performed before and at least 6 months after surgery. PROMs included a Nasal Obstruction Score Evaluation (NOSE), 22-item Sino-Nasal Outcome Test (SNOT22), Nasal Obstruction Score, as well as Function and Cosmetic Global Scores. Nasal airflow was determined by Nasal Peak Inspiratory Flow (NPIF), Nasal Airflow Resistance (NAR) derived from rhinomanometry and total Minimum Cross-sectional Area (MCA) of the nostril through acoustic rhinometry.

In this study, 133 patients were assessed. From comparing the pre and post-operative change scores in each parameter between the two populations, we can conclude that an alar base reduction has a strong impact on patient perceived cosmesis, but offsets the potential post-operative improvement in NPIF.

Project Name: What is Trapped Blood: Analysis of Coagulum after Administration of Detergent Sclerosants

Supervisors Name: A/Prof Kurosh Parsi

Student Name: Elton Chee

Sclerotherapy is a treatment for varicose veins and venous malformations. Through the injection of a detergent sclerosant at the target site, the venous endothelium is damaged, resulting in occlusion and subsequent fibrosis. A common side effect of this treatment is blood trapping (sclerocoagulum), leading to discomfort for the patient. While this side effect is fairly common, affecting up to 80% of patients, little is known about its characteristics and pathogenesis. As such, the project aims to explore its characteristics through incubating whole blood samples with different concentrations of sclerosant and then examining them under scanning electron microscope. Analyzing the effects of sclerosants on whole blood samples via this method may in turn, provide insight into the pathogenesis of sclerocoagulum.

Project Title: The Effect of Detergent Sclerosants on Squamous Cell Carcinoma Cells (in vitro)

Supervisor: A/Prof Kurosh Parsi

StudentName:Pranita Dhanji

The aim of this project was to investigate the effects of detergent sclerosants sodium tetradecyl sulfate (STS) and polidocanol (POL) on squamous cell carcinoma (SCC) cells in vitro. As sclerosants typically cause the lysis of endothelial cells, it was proposed that they may have a similar effect on other cell types. Such findings would indicate their potential for the treatment of SCC's that arise as a result of keratinocyte proliferation. SCC cells were cultured then incubated in varying concentrations of STS and POL and assessed for their cell viability, cell proliferation and stage of apoptosis. Both STS and POL led to a significant decrease in the viability and proliferation of SCC cells, while protein markers of apoptosis (caspase-3,-9 and Bax) increased with higher concentrations of the sclerosants, suggesting apoptosis as the main mode of cell death, along with necrosis. Overall POL was more effective in inducing apoptosis than STS.

HONOURS PROJECTS

Project Title: Cerebrovascular events in patients with continuous flow left ventricular assist devices

Supervisor: Prof Christopher Hayward

Student Name: Yewon David Kim

Cerebrovascular accidents (CVAs) are an important cause of mortality and morbidity during left ventricular assist device (LVAD) support. Understanding the risk factors and pathogenesis of how they occur is critical in guiding patient management and future device development. The Lavare cycle, a pump speed modulation feature available on the HeartWare Ventricular Assist System (HVAD), was also theorised to help reduce CVA incidence by two mechanisms: 1) improving ventricular washout thereby preventing haemostasis and 2) improving autonomic and cerebral auto regulatory functions. Our study looked at characterising the CVA incidence (using events per patient-year or EPPY), characteristics and risk factors present in the LVAD population at St. Vincent's Hospital as well as looking at the effects of the Lavare cycle on autonomic function by using heart rate variability (HRV) as a marker.

The study identified 48 CVAs in 37 patients consisting of 20 ICVAs in 17 patients (12.9%, 0.13 EPPY), 22 HCVAs in 15 patients (11.4%, 0.14 EPPY) and 6 TIAs in 5 patients (3.8%, 0.04 EPPY). Statistically significant risk factors ($p < 0.05$) for cerebrovascular events included age, past CVA, lower pump flows and high INR. In evaluating the clinical impact of the Lavare cycle, it also found a trend for lower incidence of CVA with the function activated (0.27 EPPY with Lavare Cycle On vs. 0.32 EPPY with Lavare Cycle Off). Furthermore, HRV analysis demonstrated promise in improving autonomic function (SDNN increased from 31.5 ± 7.2 to 65.3 ± 10.0 , $p < 0.01$) although larger studies using different HRV measures should be conducted to further quantify this effect. These findings are significant in guiding future patient management as well as device development, and with sufficient evidence, inclusion of similar pump speed modulating functions may be incorporated into all future devices.

Project Title: TEMPEST Study (Thromboelastometry Protocol in ECMO Study)

Supervisors: Dr Priya Nair, Dr Hergen Buscher

Student Name: David Zhang

The TEMPEST Study is a randomised controlled trial of the safety and feasibility of a rotational thromboelastometry based algorithm to treat bleeding episodes in extracorporeal membrane oxygenation patients. Patients in the intervention group were treated according to a goal-directed algorithm based on thromboelastometry point of care testing during bleeding episodes, compared to the control group that received standard of care. Initial results this year indicated that thromboelastometry point of care testing can validly assess coagulation status and is a feasible and safe option, and further investigation of this intervention with larger sample sizes should be done.

Project Title: Characterising aortic valve opening in patients with continuous flow left ventricular assist devices.

Supervisor: Prof Christopher Hayward

Student Name: Rachel Clifford

As continuous flow left ventricular assist devices (cLVADs) bypass the aortic valve (AV), AV opening is often greatly reduced or absent in these patients. The degree of AV opening is a key index of patient-pump interaction and is important in preventing complications, however the determinants of variation in AV opening and the impact of intermittent low speed cycles remain unclear, partially related to limitations of echocardiographic assessment of AV status. We aimed to validate an algorithm for continuously monitoring AV opening, and characterise variation in, and the impact of the Heart Ware Lavare cycle on, AV opening.

We conducted a study involving the comparison of echocardiographic assessment of AV status with the area under the curve of the power spectral density analysis of the pump speed waveform (AUC), and found that the AUC provides feasible and effective continuous monitoring of AV status. On long term outpatient monitoring, diurnal and activity related variation in AV opening was found to be significant, limiting the reliability of intermittent supine resting echocardiography. The Lavare cycle has no impact on AV opening frequency.

Project Title: Investigation of the ECMO watershed during femoro-femoral Venoaerterial Extracorporeal Membrane Oxygenation (VA-ECMO) using a mock loop circuit

Supervisor: A/Prof Kumud Dhital

Student Name: Calvin Cheong

While VA-ECMO is becoming an increasingly well researched lifesaving therapy for cardiopulmonary failure, it is associated with high complication rates. Spinal cord injury, gastrointestinal bleeding and renal injury are of particular concern during peripheral VA-ECMO where retrograde perfusion up the aorta competes with antegrade flows coming from the heart. This creates an area of mixing which can be exacerbated in cardiopulmonary failure where deoxygenated blood ejected from the heart competes with oxygenated blood from the ECMO. How this mixing affects perfusion to aortic branches is still unknown, hence, we are interested in investigating how flow, pressure and perfusion to the segmental artery (SA) of T9 (artery of Adamkiewicz), coeliac artery (CA) and renal artery (RA) is affected as the area of mixing shifts down the aorta. A mock loop circuit was created to mimic circulation in the human body and it was connected to an ECMO circuit in a peripheral femoro-femoral cannulation configuration. Cardiac output (CO) was then raised from 0-4.7L/min against a fixed ECMO flow rate (3L/min).

We found that increasing CO in a peripheral VA-ECMO circuit led to increased flow rates and a transient initial rise in the oxygenated ECMO component to perfusion of all the major descending aortic branches before falling as the deoxygenated blood from the heart overwhelms each arterial branch point. This initial increase is postulated to arise from compression and diversion of oxygenated ECMO blood into adjacent branches as cardiac output increases, while the subsequent fall occurs as deoxygenated cardiac blood becomes the major contributor. This study has illustrated how the effectiveness of retrograde perfusion is significantly reduced as opposing antegrade cardiac flow increases. It also shows how perfusion of proximal aortic branches is predominantly dependent on the heart. Hence, there may be benefit in exploring new clinical strategies focusing on ventilatory support in patients on peripheral VA-ECMO to reduce hypoperfusion of these branches.

Project Title: Two-year follow-up to the Macrophage Inhibitory Cytokine-1 as a Predictor of Colonic Adenomas (MAPCA) study.

Supervisors: Prof David Brown and A/Prof Mark Danta

Student Name: Samuel William Li-Wei Baumgart

Macrophage inhibitory cytokine-1 (MIC-1/GDF15) is a potential biomarker with utility for screening asymptomatic individuals for precancerous colonic polyps. This may significantly improve population-based colorectal cancer and adenoma screening by addressing the limitations of current modalities. In a prospective cohort study between 2014-2016, 605 patients were recruited from St Vincent's Hospital. Pre- and post-endoscopic blood samples were collected. These were analysed using a sensitive in-house immunoassay to determine MIC-1/GDF15 levels.

Serum MIC-1/GDF15 levels were significantly elevated in individuals with adenomatous polyps and cancer compared to those without polyps. Serum MIC1/GDF15 levels decreased significantly following the removal of polyps. Serum MIC-1/GDF15 levels were not elevated in individuals with either hyperplastic polyps or sessile serrated adenomas. These results confirm that serum MIC-1/GDF15 levels have the potential to predict the presence of pre-cancerous adenomatous polyps and guide colonoscopic screening, thus enhancing colorectal cancer prevention.

CLINICAL PHARMACOLOGY UPDATE

The Department of Clinical Pharmacology and Toxicology (CPT) is part of St Vincent's Clinical School and the School of Medical Sciences, UNSW Medicine and St Vincent's Hospital Sydney, St Vincent's Health Australia.

The core activities of the CPT Department focus on promoting the safe and effective use of medicine as well as patient safety at St Vincent's Hospital and in the community. This includes:

- Inpatient service for the management and assessment of overdoses and poisoning,
- Consulting on therapeutic problems,
- Guidance on the usage of electronic medication management and decision support tools,
- Research and teaching on medicines.

The Department provides leadership in the areas of therapeutics and quality use of medicines locally, nationally and internationally through its advisory roles, collaborations, memberships and associations.

This year has been another busy and successful year for Professor Ric Day and his team. Prof Ric Day and colleagues were successful in several research grants for the 2016/2017 round which will allow him and his team to continue their translational research.

Welcome Dr Jane Carland who joins CPT as Senior Hospital Scientist sharing this role with Dr Sophie Stocker. Jane gained her PhD (2005) from the University of Sydney, Australia under the supervision of Professors Mary Collins (Chebib) and Graham Johnston. In 2005 she took up a post-doctoral position with Professors Jeremy Lambert and John Peters at the University of Dundee, UK and returned to Australia as a UNSW Vice-Chancellors Research Fellow in 2007. Jane subsequently worked within the Transporter Biology Group

in the Discipline of Pharmacology, University of Sydney. The main focus of Jane's research has been structure-function studies of neurotransmitter receptors and transporters. Most recently, she has been investigating lipid inhibitors of glycine transporters, these compounds providing not only important insights into transporter function, but also representing a novel class of drugs that have potential to relieve neuropathic pain. Jane will assist with the department's research efforts. It has been very good to have Jane on board.

Prof Ric Day was the recipient of the 'St Vincent's Clinical School 2016 Researcher of the Year Award', UNSW Medicine, University of New South Wales; '2016 SoMS Higher Degree Research Supervisor Award', School of Medical Sciences, UNSW Medicine, University of New South Wales; and awarded 'Life Membership' by the Board and Fellows of the Royal Australasian College of Physicians.

Dr Melissa Baysari was awarded HFESA's (Human Factors and Ergonomics Society of Australia) 2016 Alan Welford award, for the best paper on an human factors and ergonomics topic published in a peer-reviewed journal within the calendar year prior to the award for the research paper: *Westbrook JI, Li L, Lehnborn EC, Baysari MT, Braithwaite J, Burke R, Conn C, Day RO. What are incident reports telling us? A comparative study at two Australian hospitals of medication errors identified at audit, detected by staff and reported to an incident system. Int J Qual Health Care (2015) doi: 10.1093/intqhc/mzu098.*

Dr Melissa Baysari was also awarded the HFESA John Lane Award for a major systematic contribution to advancing the science of human factors and ergonomics and its application in Australia.

Drs Shaun Kumar and Diluk Kannangara had their PhDs conferred and graduated this year. The department's students Joanne Chan, Crystal Li, Gina Chowdhury and David Lowenstein all achieved first class Honours in BMedSc.

We would also like to acknowledge and say thank you to Honorary Professors Garry Graham and Ken Williams for their continuing volunteer work, research and assistance with student research projects.

Lastly, farewell to Dr Lauren Frensham, Research Fellow, who will be leaving us at the end of the year. Lauren has made great progress and contribution to our group and to our gout work. We wish to thank her and wish her success in her future endeavours.





A/Prof Mark Danta

POST GRADUATE REPORT

UNSW's 2025 strategy has begun being implemented. The Scientia Fellowship and PhD program has now commenced and this is a cornerstone of UNSW's ambitious strategic plan for the next decade (https://www.2025.unsw.edu.au/sites/default/files/uploads/unsw_2025strategy_201015.pdf).

The Scientia Fellowship program aims to attract and retain outstanding researchers, with the goal of enhancing the University's research performance. UNSW's strategic plan states "that our aspiration is to be recognised as an international exemplar in equity, diversity and inclusion and an employer of choice for people from diverse backgrounds. Our aim is to achieve this by embracing the diversity and cultural richness of our communities; ensuring that our staff and students can achieve their full potential in a supportive and inclusive work environment." The Fellowships will support academics on a continuing appointment and will include support packages of up to \$40,000 per annum and access to a range of development opportunities across research, teaching and learning and leadership and engagement relevant to career stage. In addition, the Scientia PhD Scholarship Scheme directly underpins the UNSW Strategy 2025 goals and will aim to enrol up to 700 new PhD students over the next 10 years. Candidates will be matched with our best researchers in targeted areas of research strength and with demonstrated excellence in supervision. These are generous scholarships and will include a stipend of \$40,000 per annum for 4 years and a support package of up to \$10,000 per annum awarded to provide support for development activities, international collaboration and other related expenses. The St Vincent's biomedical precinct will play an important role in this program given the calibre of researchers on this campus.

NHMRC grants are becoming more competitive with success rates now below 10%. UNSW has received a total of \$16.6 million in National Health and Medical Research Council (NHMRC) funding for projects to commence in 2017, a significant fall from the previous round of funding. However, many of these grants are affiliated with the St Vincent's Clinical School, particularly through the Garvan Institute and Victor Chang Cardiac Research Institute. No doubt as the Kinghorn Cancer Centre increases the links between clinical care and basic research in a 'bench to bedside' approach in the field of cancer and genomics more grant funding success will follow. Students play a vital role in this, as exemplified by Nancy Mourad of the Garvan Institute Bone Biology Division who came second in UNSW 3-Minute Thesis competition. She delivered an excellent presentation entitled "Cancer: Bad to the bone" available on UNSW TV (<https://www.youtube.com/watch?v=RfoF2SCboJ0>).

The support for postgraduate students and supervisors has also improved significantly with the development of the Graduate Research Information System (GRIS), the online process of application and candidature for higher degree research students. Eventually, this will involve the annual progress reviews and the PhD thesis examination process which should facilitate the progress of students through their PG studies. I would like to thank the other PGCs on campus, specifically, Dr Tracy Anderson (Garvan Institute) and Prof Boris Martinec (Victor Chang Cardiac Research Institute) all post-graduate students and supervisors for an excellent year. Finally, I would also like to welcome Stacey Emerson the PGC PA for SVCS. All the best for 2017.

SUCCESSFUL GRANT APPLICATIONS

UNSW-ADMINISTERED

RG150617 - Australian Research Council/Discovery Project - Prof B Martinac, 01-Jan-2016 31-Dec-2018 \$646,400.00 for "Molecular force sensing mechanisms of PIEZO channels".

RG150771 - National Health & Medical Research Council/Project Grant - Brew, Bruce James AM 01-Jan-2016 31-Dec-2019 \$814,620.00 for "Identification and quantification of HIV Latency biomarkers in the Central Nervous System" .

RG150855 - Australian Research Council/Discovery Early Career Researcher Award (DECRA) – Dr M Christie, 01-Jan-2016 to 31-Dec-2018 \$359,000.00 for "Investigating the structural basis of human antibody stability".

RG151009 - Australian Research Council/Discovery Project – Prof RP Harvey, 01-Jan-2016 to 31-Dec-2018 \$467,400.00 for "Sprouting Angiogenesis and its Role in Development of Chamber Myocardium".

RG151067 - Australian Research Council/Discovery Project – A/Prof D Christ, 01-Jan-2016 to 31-Dec-2019 \$366,800.00 for "Investigating the dynamic nature of antibody stability".

RG152598 - University of New South Wales/Go8 - Germany Joint Research Cooperation Scheme (DAAD) – Prof B Martinac, 01-Jan-2016 to 31-Dec-2017 \$22,000.00 for "Mechano-biotechnology of Hypertrophic Signalling in the Heart".

RG153013 -Goldstar-ARC – Prof R Stocker, 01-Jan-2016 to 31-Dec-2016 \$40,000.00 for "Improving the measurement of reactive species in complex biological systems".

RG153021 - Goldstar-ARC – Prof S Dunwoodie, 01-Jan-2016 to 31-Dec-2016 \$40,000.00 for “Studying the effects of hypoxia on mouse embryogenesis”.

RG161517 – National Blood Authority/Project Grant – A/Prof K Dhital, 01-Jul-2016 to 01-Jul-2018 \$148,100.00 for “Optimising Management of Bleeding in Cardiac Surgery”.

RG161591 – National Health & Medical Research Council/Postgraduate Scholarship – Dr K Hendrawan, 11-Feb-2016 to 11-Jul-2016 \$86,117.00 for “Determining the mechanisms of tolerance after autologous stem cell transplantation for Multiple Sclerosis – the role of CD39+ T regulatory cells”.

RG161857 – Ian Potter Foundation/Travel and Conference Grants – Dr L Frensham, 11-Feb-2016 to 11-Jul-2016 \$500.00 for “To attend PCS 3rd Annual Global Cancer Conference, Marrakesh, Morocco, 5 November 2016 - 6 November 2016.

RG161926 - NSW Health/Early-Mid Career Fellowship – Dr A Nguyen, 01-Oct-2016 to 31-Dec-2019 for \$353,320.00 for “Health service and systems design, implementation science, evaluation and improvement”.

RG162006 – NSW Health/Early-Mid Career Fellowship – Dr M Saxena, 01-Oct-2016 to 31-Dec-2019 for \$351,000.00 for “Bioinformatics”.

RG162456 - National Health & Medical Research Council/Project Grant – A/Prof N Ezard, 05-May-2016 to 31-Dec-2019 \$1,082,177.00 for “Randomised double-blind placebo-controlled study of lisdexamfetamine for the treatment of methamphetamine dependence”.

2017 DATES

2017 TERM DATES

Phase 1

Teaching Period 1: 27 February - 21 April
Recess: 24 April - 28 April
Teaching Period 2: 1 May - 23 June
Recess: 26 June - 14 July
Teaching Period 3: 17 July - 8 September
Teaching Period 4: 11 September - 10 November
Recess: 25 September - 29 September

Phase 2

Semester 1: 27 February - 23 June
Recess: 14 April - 21 April
Recess: 26 June - 14 July
Semester 2: 17 July - 10 November
Recess: 28 August - 1 September

Phase 3

Summer Teaching Period: 9 January - 3 March
Teaching Period 1: 6 March - 5 May
Recess: 3 April - 7 April
Teaching Period 2: 8 May - 30 June
Recess: 3 July - 7 July
Teaching Period 3: 10 July - 1 September
Recess: 4 September - 8 September
Teaching Period 4: 11 September - 3 November
PRINT: 9 October - 17 November

EXAMINATIONS

Phase 3

Clinical: 13 & 14 September
Oral: 19 & 20 September
Portfolio: 26 & 27 September

Phase 2

21 & 22 November

Phase 1

29 November & 30 November

UNSW CONJOINT STAFF APPOINTEES

AS OF 7 DECEMBER 2016

PROFESSOR

Basten, Antony
Biden, Trevor
Bowtell, David
Breit, Samuel
Brew, Bruce
Brien, Jo-anne
Brink, Robert
Burnett, Leslie
Campbell, Lesley
Carr, Andrew
Center, Jackie
Chisholm, Donald
Clark, Susan
Cohen, Milton

Cooney, Gregory
Croucher, Peter
Daly, Roger
Dunwoodie, Sally
Eisman, John
Epstein, Richard
Fatkin, Diane
Febbraio, Mark
Feneley, Michael
Glanville, Allan
Guntton, Jenny
Goodnow, Christopher
Harvey, Richard
Haylen, Bernard

Hayward, Christopher
Herzog, Herbert
Ingham, Jane
James, David
Keogh, Anne
Ma, David
Macdonald, Peter
Marriott, Deborah
Mattick, John
Nguyen, Tuan
Ormandy, Christopher
Petros, Peter
Rogers, Michael
Samaras, Katherine

Shine, John
Spren, Jonathon
Stocker, Roland
Symonds, Geoffrey
Tangye, Stuart
Thomas, David
Vandenber, Jamie
Watkins, Neil

ASSOCIATE PROFESSOR

Bester, Lourens
Brennan, Nick
Brown, David
Bryant, David
Chye, Richard
Connolly, William Bruce
Cooper, Antony
Courtenay, Brett
Dhital, Kumud
Dinger, Marcel
Dodd, Anthony
Emmett, Louise
Ezard, Nadine
Faux, Steven
Freund, Judith

Fulde, Gordian
Grabs, Anthony
Graham, Antony
Grey, Shane
Hillman, Richard
Hodgkinson, Susanne
Holloway, Cameron
Horvath, Lisa
Jabbour, Andrew
Jones, Graham
Joshua, Anthony
Kennedy, Michael
Kotlyar, Eugene
Kuchar, Dennis
Laybutt, Ross

Lee, Lynette
Lim, Elgene
Lord, Reginald
Markus, Romesh
Moore, John
Morey, Adrienne
Muller, David
Neil, Michael
Norris, Ross
Ortiz, Michael
Parsi, Kurosh
Pendlebury, Susan
Pliit, Marshall
Pocock, Nicholas
Raftos, John

Roe, Justin
Schembri, Anthony
Schmitz-peiffer, Carsten
Sevastos, Jacob
Simons, Leon
Spratt, Phillip
Stricker, Phillip
Subbiah, Rajesh
Suter, Catherine
Tobin, Bernadette
Viardot, Alexander
Xia, Yu (Brandon)
Yates, Deborah

SENIOR LECTURER

Aldred, Russell
Al-Soufi, Suhel
Anderson, Tracy
Baldock, Paul
Banerjee, Dev
Barry, Guy
Batten, Marcel
Baysari, Melissa
Berry, Melinda
Beveridge, Sandy
Biggs, Nigel
Birzniece, Vita
Blackburn, James
Bogdanovic, Ozren
Brenner, Phillip
Burgess, Andrew
Buscher, Hergen
Caldon, Catherine Elizabeth
Carland, Jane
Chaganti, Joga Rao
Chan, Tyani
Chan, Eva
Chan, Jeng
Chen, Wendy
Chtanova, Tatyana
Cipponi, Arcadi
Cowley, Mark

Cox, Charles
Cox, Thomas
Croucher, David
Darveniza, Paul
Dear, Rachel
Del Monte Nieto, Gonzalo
Fenton, Martin
Dunn, Louise
Ende, David
Fallon, Anne
Feller, Robert
Fenton-Lee, Douglas
Field, Andrew
Finckh, Andrew
Foltny, Peter
Frommer, Donald
Garrick, Ray
Giannoulatou, Eleni
Girgis, Lalia
Groza, Tudor
Hamad, Nada
Hargreaves, Warren
Harper, Elizabeth
Harvey, Rhonda
Havryk, Adrian
Hesselson, Daniel
Hill, Adam

Ho, Wing Kei (Joshua)
Hughes, William
Husaini, Yasmin
Iismaa, Siri
Imtiaz, Mohammad
Joseph, Joanne
Kansara, Maya
Kikuchi, Kazu
King, Cecile
Kohonen-Corish, Maja
Lamaro, Vincent
Lee, Paul
Leow, Liang Joo
Lin, Yong
Lovelace, Michael
Maghzal, Ghassan
Malouf, Monique
Martin, Gisela
Matthews, Steve
Mercer, Timothy
Milliken, Samuel
Mora, Fatima
Mozer, Roslyn
Nair, Priya
Neely, Gregory
Nicholls, Mark
Nikolova-Krstevski, Vesna

Oakes, Samantha
O'Neill, John
O'Sullivan, Gregory
O'Toole, Sandra
Owe-Young, Robert
Pardo, Eva Maria
Parker, Shari
Pell, Malcolm
Perry, Matthew
Petersen, Desiree
Phan, Tri
Preis, Paul
Qiu, Min Ru
Roscioli, Tony
Roy, David
Samarasinghe, Iromi
Sammel, Neville
Saxena, Manvendra
Schofield, Peter
Silverstone, Elizabeth
Simon, Neil
Smith, Nicola
Steel, Timothy
Stewart, Alistair
Stirzaker, Clare
Stock, Daniela
Stone, Emily

SENIOR LECTURER CONTINUED

Sun, Clive
Sutton, Ian
Suzuki, Kazuo
Swarbrick, Alexander
Taberlay, Phillipa
Tao, Helen
Tao, Jiang
Timpson, Paul
Tisch, Stephen
Tsai, Vicky Wang-Wei

Vissel, Bryce
Walker, Bruce
Watts, Colin/Charlie
Webster, Kylie
Whitfield, Margot

Wilson, Stephanie
Wu, Jianmin
Wu, Kathy
Yuen, Carlo
Zaunders, John

LECTURER

Alford, Judy
Al-Tebrineh, Jamal
Asli, Naisana Seyed
Baker, Matthew
Balaji, Poornima
Barnett, Yael
Ben-Menachem, Erez
Benzimra, Mark
Bosman, Alexis
Bouveret, Romaric
Brooke, Kathryn
Buske, Fabian
Cazet, Aurelie
Chapman, Gavin
Chaston, Jessica
Chow, Fiona
Connor, David
Costin, Monique
Cotterell, James
Crawford, Julia
Crocket, Robert
Cruz, Monique
Deenick, Elissa
Doyle, Kharen
Eaton, Sally
Edwards, Emily
Findeisen, Maria
Flanagan, Sean
Fulde, Sascha
Gallego-Ortega, David
Gatto, Dominique

Gill, Anthony
Gilroy, Nicole
Giry-Laterriere, Marc
Gloss, Brian
Granger, Emily
Guennewig, Boris
Hesselson, Stephanie
Higgs, Andrew
Hollway, Georgina
Hsu, Eugene
Humphreys, David
Ibrahim, Karim
Jahromi, Shahrzad
Khoo, Oliver
Khoo, Melissa
Khuong, Thang Manh
King, Michael
Kumaradevan, Nirmala
Lau, Man Tat
Lee, Hong Ching
Lee, Nicola
Leung, Julie
Liao, Bing
Liew, Chu Kong
Lin, Peijie Paul
Loi, To Ha
Ma, Cindy
Macaulay, Philip
Mackinnon, Rachael
Mahon, Kate
Mann, Stefan

Maruno, Kevin
McCabe, Mark
McCormack, Ann
McDonald, Michelle
Milner, Brad
Mohammad, Mohammad
Molloy, Tim
Muniak, Michael
Munoz, Marcia
Nair, Shalima Sasidharan
Ng, Chai (Andy)
Nguyen, Akira
Nicholls, Gary
Nikolic, Iva
Omari, Abdullah
Owen, Gareth
Paddon, Vanessa
Pajic, Marina
Pal, Martin
Palma, Catalina
Pile, Alex
Pinese, Mark
Reed, Joanne
Reibe-Pal, Saskia
Rodgers, Craig
Rudham, Sam
Schonrock, Nicole
Scott, Sean
Seah, Davina
Shi, Hongjun
Shi, Yanchuan

Singh, Reena
Skalicky, David
Smith, Martin
Southwell-Keely, James
Stocker, Sophie
Stone, Andrew
Tefany, Frances
Tran, Phuong Ngoc
Tsang, Clement
Vaquerinho de pinho, Andreia
Vertzyas, Nick
Vu, Thi Thanh
Warton, Kristina
Watanabe, Yuriko
Whitham, Martin
Williams, David
Winder, Mark
Woods, Nicola
Wu, Jane
Yeates, James
Zhang, Lei
Zotenko, Elena

ASSOCIATE LECTURER

Abelson, David
Aching-Kawecka, Joanna
Al-Ramadan, Hussain
Ambati, Chaitanya
Amin, Amer
Ariyanrathna, Dilshan
Au, Kimberley
Bart, Nicole
Bartonicek, Nenad
Bazin, Patrick
Bensted, Karen
Berger, Aaron
Bishay, Ramy
Blom, Megan
Blum, Nomi
Bodnarchuk, Damien
Bradley, Stephen
Brown, Lauren
Burne, Scott
Butler, Margaret
Butterfield, Robin
Byrne, Niall
Campos, Pedro
Carroll, Antonia
Casey, Andrew
Chauhan, Manisha
Cheng, Yen Szu
Cheung, Caran
Chew, Hong
Chowdhury, Amelia
Chu, Kwan
Chung, Jason
Cole-Clark, Dane
Connellan, Mark
Connolly, Elizabeth
Crane, Henry
Dai, Eunice

Danos, Isabelle
Dantanarayana, Nandu
Deng, Niantao
Dowling, Cameron
Duckworth, Andrew
Edwards, Gillian
Farnham, Nell
Farrell, Sarah
Fennessy, Niall
Gilbert, Monique
Goldstein, James
Han, Chaw
Hanlon, Richard
Hannaford, Matthew
Hannaford, Patricia
Herrmann, David
Ho, Jacqueline
Holmes, Ryan
Holmes, Alex
Hoy, Elizabeth
Huang, Zichan
Hutton-Potts, Misha
Junankar, Simon
Kilpatrick, Fiona
Kim, Ryan
Korb-Wellis, Cameron
Kumarasinghe, Gayathri
Lasschuit, Joel
Law, Caroline
Lee, William
Lien, Ivy
Loh, Tze Ling
Luong, Michael
Lyangh, Louise
Ma, Chun (Kris)
Manders, Peter
Markowsky, Lorie

Mayson, Eleni
McGrath-Cadell, Lucy
McLean, Alison
Menon, Jennifer
Meredith, Thomas
Milanovic, Mitchell
Milliken, Eliza
Mladenova, Dessislava
Morris, Katrina
Murambi, Ronald
Namasivayam, Mayooran
Nee, Rory
O'Brien, Michael
O'Donnell, Jonathan
Offen, Sophie
Ong, Lawrence
Ostrowski, Kevin
Parthasarathi, Krishnan
Pasfield, Adam
Patterson, Kate
Phan, Justin
Pokorny, Adrian
Rendalls, Shane
Rigby, Amy
Roach, Timothy
Robertson, Timothy
Rom, Darren
Sachdev, Sonal
Sacks, Peta
Saling, Samantha
Scheuer, Sarah
Shaw, Nicholas
Shields, Melissa
Shivam, Aruna
Sido (nee Singh), Tanya
Singer, Joel
Siriwardana, Amila

Skidmore, Sarah
Small, Timothy
Smith, Corey
Song, Ning
Starke, Julia
Stephenson, Rowan
Sundaram, Gayathri
Sundling, Christopher
Sutherland, Emily
Swart, Alexander
Tai, Patrick
Tassie, Benjamin
Tay, Emma Ming Yuan
Terry, Rachael
Thompson, James
Ting, Francis
Tong, Winnie Wing Yin
Tonks, Katherine
Tran, Minh
Tran, Thach
Tran, Chau
Trimboli, Anthony
Turner, Marianne
Ung, Natasha
Vijayan, Dipti
Walker, Stephen
Wang, Louis
Wang, Qioping
Watts, Jennifer
Wilson, Brooke
Wing-Lun, Edwina
Wong, Simon
Woods, Benjamin
Zygocki, Natalia

CLINICAL SCHOOL STAFF MEMBERS



Professor Jerry Greenfield

Clinical Associate Dean

Commenced: October 2016

Specialty: Endocrinology

Research Interests: Diabetes, Obesity, Insulin resistance, Monogenic metabolic diseases



Professor Terry Campbell

Senior Associate Dean, Faculty of Medicine & Professor of Medicine

Commenced: 1998

Specialty: Cardiology

Research Interests: Cardiac ion channels; Antiarrhythmic drugs; Cardiac Arrhythmias; Cardiac pharmacology



Professor Allan Spigelman

Head of Surgery, Professor of Surgery

Commenced: 2006

Specialty: Surgical Oncology

Research Interests: Cancer Care; Clinical Governance/Patient Safety/ Quality of Care/Risk Management; Surgery; Cancer Genetics



Professor Ric Day

Professor of Clinical Pharmacology

Commenced: 1990

Specialties: Clinical Pharmacology & Rheumatology

Research Interests: Inflammatory rheumatic diseases; adverse drug reactions



A/Professor Eva Segelov

Associate Professor of Medicine

Commenced: 2004

Specialty: Medical Oncology

Research Interests: Oncology clinical trials; quality of life; medical education



A/Professor Jane McCrohon

Associate Professor of Medicine

Commenced: 2008

Specialty: Cardiology & Medical Imaging

Research Interests: Cardiac imaging (MR, CT and ultrasound); detection of cardiotoxicity



A/Professor Bill Sewell

Associate Professor of Immunology

Commenced: 1998

Specialty: Immunology

Research Interests: Allergic disease; Novel markers in leukaemia and lymphoma.



A/Professor Mark Danta

Associate Professor of Medicine

Commenced: 2006

Specialty: Gastroenterology

Research Interests: Viral Hepatitis; Hepatitis HIV co-infection



Dr Anthony Chambers

Senior Lecturer in Surgery

Commenced: 2010

Specialty: Surgical Oncology

Research Interests: Breasts, Thyroid Cancer, Endocrine Tumors



Dr Russell Clark

Senior Lecturer in Medicine

Commenced: 2009

Specialty: Geriatrics



Dr Darren Gold

Director of Medical Student Education; Senior Lecturer in Surgery

Commenced: 2007

Specialty: Colorectal Surgery

Research Interests: Proctology; pelvic floor disorders



Dr Rohan Gett

Lecturer in Surgery

Commenced: 2006

Specialty: Colorectal Surgery

Research Interests: Colorectal Surgery

ADMINISTRATIVE STAFF



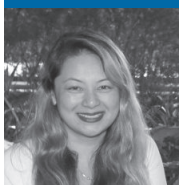
Mrs Melinda Gamulin
School Manager



Ms Alison Cullen
Student Administrative Officer



Ms Leanne McQuiston
Student Administrative Assistant



Ms Thuy Huynh
Administrative Officer (Clinical Pharmacology)



Ms Cassie Shearer
Administrative Assistant (Surgical Professorial Unit)



Ms Stacey Emerson
Administrative Assistant (Medical Professorial Unit)



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