



Medicine, Nursing and Health Sciences

Translational Research Symposium and Department of Medicine 50th anniversary

30 September 2015

Hosted by Central Clinical School



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Central Clinical School

Monash University @ Alfred Medical Research and
Education Precinct

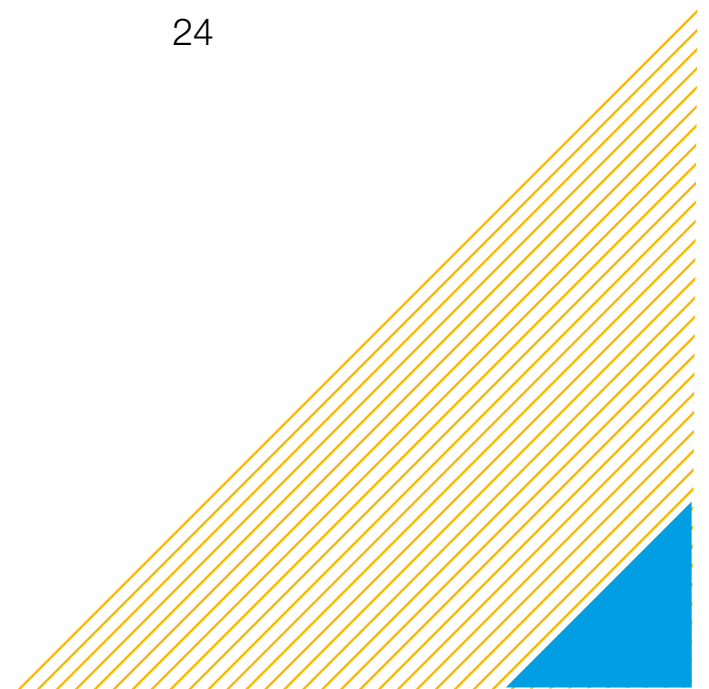
Reception: Level 6, Alfred Centre

Front cover image

Barry Firkin (right) with colleague James Rankin. His
interest in medical research started in undergraduate
years. Image ©The University of Sydney

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Program Timetable

Invited Speakers

9.00 am	<p>Professor Hatem Salem AM: The Department of Medicine at The Alfred Hospital: A dream beginning</p> <p>Professor Nip Thomson AM: The Department of Medicine 1992-2010 - from the ridiculous to the sublime.</p>
9:40 am	Professor Ingrid Scheffer AO (University of Melbourne): Translational science: the goal of the clinician-scientist
10:30 am Tea/Coffee	
11:00 am	Professor Ian Street (WEHI): Bridging the gap between biological hypothesis and new medicine
11:30 am	Professor Steve Wesselingh (SAHMRI): The Medical Research Career Path: Is there a right way?
12:00 pm	Professor Jayashri Kulkarni (MAPrc, CCS): Psychiatry in the 21st century
12:25 pm Lunch	
1:25 pm	Professor Ian Davis (EHCS): Cancer - I used to understand it.
1:50 pm	Professor Eric Morand (SCS): The curse of steroids in Lupus - and a way forward
2:15 pm	Professor Robyn O'Hehir (Alfred Health/CCS): InSPIREd therapy for allergies (synthetic peptide immuno-regulatory epitopes)
2:40 pm	Dr Jane Muir (CCS): The FODMAP evolution - Pieces of a puzzle to high quality evidence to translation into clinical practice
3:05 pm	Professor Christopher Fairley (CCS): Why sex work legislation matters to everyone
3:30 pm Coffee break	
4:00 pm	Professor Euan Wallace (SCS, Hudson Institute): How basic science informs clinical trials. Lessons from perinatal medicine
4:25 pm	Professor Suresh Sundram (SCS): Evidence for biomarker development in schizophrenia sub-groups
4:30 pm	Young Investigator poster presentations in the AMREP Seminar room until 8 pm
4:50 pm	Professor David Curtis (Australian Centre for Blood Diseases): Mighty Mouse or Mickey Mouse?
5:15 pm	Professor Christina Mitchell (Dean of Medicine, Monash University): Summary Professor Stephen Jane (CCS) & Director Translation Research Program
6:00 pm	Drinks/EMCR/Alumni/Industry and Pharma displays
8:00 pm	Close

Translational Research Symposium and Department of Medicine at The Alfred 50th Anniversary

This year sees Monash's inaugural Translational Research Symposium. This year also marks fifty years of medical research and education at The Alfred site. The symposium showcases our achievements and current activities, and looks to the future. We warmly invite you to join us for an informative and entertaining occasion. This is a unique opportunity to meet with some of Medicine's greats and the young and upcoming talent being mentored by the department and the School.

About the Department of Medicine at The Alfred

The Monash Department of Medicine at The Alfred grew from the vision of two men – Rod Andrew, appointed Foundation Dean of Monash's Faculty of Medicine in 1960, and Sir Sydney Sunderland, Dean of Medicine at the University of Melbourne. Sir Sydney was a strong advocate for the second medical school in Victoria and a supporter of Monash University. The Alfred was initially a partner hospital with the University of Melbourne and through their combined efforts and the building of the Medical School at The Alfred, achieved the transfer of affiliation of The Alfred to Monash University.

The following people have been crucial in making The Alfred a centre of excellence. The pioneers include the first clinical professor to be appointed, Hugh Dudley, who was the inaugural Chair of Surgery; John (Jock) Masterton, under whose leadership The Alfred became, and



Alfred Hospital 1954, pre building the Monash Medical School in the early 1960s. The early Baker institute building can be seen to the far left.

remains, the leading centre for burns patients in Victoria; Frank McDermott, who set the foundations for the establishment of The Alfred as the major trauma centre in Victoria; John McNeil, who invested in biostatistics and registries, creating world class data platforms; and Barry Firkin, who established The Alfred as a major site for investigations into blood diseases.¹

Bricks and mortar were also needed to house the research, education and clinical activities. The Medical School building

was begun in the early 1960s, followed by the creation of the Animal House, needed for in vivo research. The precinct gradually took its current shape with The Alfred Centre, Burnet tower and Baker IDI tower constructed at the eastern end of The Alfred Health block, now collectively known as The Alfred Medical Research and Education Precinct (AMREP).

¹ Alfred Hospital: Faces and Places Vol III p.31



2012. The Alfred Medical Education and Research Precinct (AMREP): L-R The Alfred Centre (completed in 2010), Burnet tower, Baker IDI tower, main hospital, helipad.

Heads of Department

Professor Barry Firkin – Foundation Professor of Medicine at The Alfred 1969-1992



Barry George Firkin, haematologist, educator and medical historian, was the foundation President of the Australian Society for Medical Research in 1961. He performed the first successful bone marrow transplant in the world in 1967 and was Foundation Professor of the Monash University Clinical School at The Alfred Hospital in Melbourne from 1969 to 1991.

Barry Firkin was invited to think about coming to The Alfred with the words, "Barry, have you thought of coming to Melbourne? I think you'd like the people at The Alfred. The hospital is being rebuilt - think it over." The invitation, plus Monash University's fresh approach to medical education, persuaded him. "It seemed to me to represent a fine opportunity to establish an academic department teaching general medicine and establishing research in haematology and gastroenterology".²

In 1969, Barry accepted the position of Foundation Professor of the Monash University Clinical School at The Alfred Hospital in Melbourne, Victoria. In

that capacity, he continued his clinical research, directed the teaching of the academic department and oversaw its expansion to different campuses and hospital sites. He also maintained his position of In-patient Physician and treated patients with haematological problems. Colleague Professor Hatem Salem recalls:

"Soon after moving to his new position, he made what I would regard as his most significant contribution to haematology. His description that Ristocetin caused platelet clumping and that the process was dependent on the presence of normal plasma and not plasma from a patient with von Willebrand disease was the key to our understanding of the biology and biochemistry of von Willebrand factor. In 1968, when Barry made this observation, Ristocetin was no longer in clinical use because of the frequent development of thrombocytopenia in people who received this antibiotic. Barry's intuition and lateral thinking was the driving force behind identifying the mechanism by which the drug caused thrombocytopenia. This observation facilitated the development of an assay for von Willebrand factor (the ristocetin cofactor assay) that we continue to use today."

Barry's expertise and reputation in haematology established The Alfred as a major site for blood diseases which continues to this day.³

In general terms, Barry built up the Department steadily on the basis of his belief that "two vital roles of a Department of Medicine [are] to demonstrate leadership in undergraduate and postgraduate teaching, and in basic research. He focused on publishing

research in journals of high international repute as well as successfully competing for funding from the National Health & Medical Research Council."⁴

Barry maintained his role at The Alfred and Monash University until 1991, remaining dedicated to developing haematology in Australia and being active in the international haematology arena. He played significant roles in the activities of the International Society of Haemostasis and Thrombosis, and in the International Society of Haematology. He was Councillor to the International Society of Haematology and a Senior Member of the Scientific Advisory Council of the International Society of Haemostasis and Thrombosis. In recognition of his contributions, he was made the first Life Member of the Australian Society for Medical Research in 1984.

In 1991, Barry relocated his office to Box Hill Hospital where he continued his academic and clinical roles. On his retirement, in 1995, he was made Emeritus Professor of Medicine at Monash University, Melbourne. Barry passed away in 2001.

² Alfred Hospital: Faces and Places, p.332

³ Alfred Hospital: Faces and Places Vol III p.31

⁴ Alfred Hospital: Faces and Places Vol I p.337

Heads of Department

Emeritus Professor Napier Thomson AM Head 1992-2011



Emeritus Professor Napier Thomson with his Order of Australia, awarded 2009

Professor Napier ('Nip') Thomson was appointed head of the Monash Department of Medicine at The Alfred in 1992. Under his leadership the department re-established its research activity initially with four main groups including Nip's own research speciality, renal transplantation. Nip was also appointed in 1994 as Associate Dean (clinical) of the Faculty. From this position he and colleagues appreciated in the late 1990s, that as the Faculty of Medicine had grown considerably both in research endeavour along with undergraduate and postgraduate teaching programs, a new structure for the faculty was needed. Under the leadership of the then Dean of Medicine, Professor Nick Saunders, a faculty structure was developed

which reflected where the faculty's teaching and research programs were being undertaken. This led to the establishment of schools of the faculty, and Nip was appointed Head of the new Central and Eastern Clinical School (CECS), created in 2001.

The initial seven schools were: School of Biological Sciences based at Clayton, CECS, Southern Clinical School, School of Primary Health, Rural Clinical School, School of Psychology/Psychiatry/Psychological Medicine and School of Nursing. Each school was involved in the provision of one or more undergraduate and postgraduate courses and the home to programs of research and research training.

CECS encompassed the departments of Medicine, Surgery, Immunology and Pathology, Epidemiology and Preventive Medicine and academic components of the faculty's departments of Psychological Medicine and Obstetrics and Gynaecology. The affiliated clinical institutions included hospitals of Alfred Health, Eastern Health, Cabrini Health and Epworth Health.

In 2006 the Eastern Health Clinical School was established separating from CECS, which became Central Clinical School (CCS) and in 2008 the Department of Epidemiology and Preventive Medicine separated from CCS to become the major component of the new School of Public Health and Preventive Medicine under Professor John McNeil's leadership, remaining located at The Alfred site.

From 2008 until 2011 CCS continued to grow considerably in its academic programs, facilitated by the developments of new infrastructure for teaching and

research at The Alfred site in the southern block, Burnet building and Alfred Centre. In addition to the departments of Medicine, Surgery and Immunology, the school developed departments of Haematology (following relocation of the Australian Centre for Blood Diseases to The Alfred) and Infectious Diseases as well as a major academic program in Anaesthesia and Perioperative Medicine.

Following the retirement of Professor Thomson as Head of the school in 2011, CCS has continued to flourish and expand under the new Head of School, Professor Stephen Jane.

Heads of Department

Professor Stephen Jane

Head 2011 - Present



Professor Stephen Jane completed his medical degree at Monash University. He entered the physician training program at The Alfred, completing clinical/laboratory haematology and a PhD under Professor Hatem Salem, Director of the Australian Centre for Blood Diseases. He then spent five years in the United States of America, the first three as a postdoctoral fellow at the National Institutes of Health in Bethesda, and the remainder on the faculty at St Jude Children's Research Hospital in Memphis, Tennessee. He returned to Australia in 1995 as a Wellcome Senior Research Fellow to the University of Melbourne at the Bone Marrow Research Laboratories in the Royal Melbourne Hospital. He became Director of the laboratories in 2000, a Principal Research Fellow of the NHMRC in 2005 and a Professor of Medicine at the University of Melbourne in 2006.

Steve was appointed as the Head of Central Clinical School, Professor of Medicine, Monash University and Director of Research for The Alfred Hospital in 2011. He is a member of

Alfred Health's Clinical Haematology Service. In 2015, he was elected to the Australian Academy of Health and Medical Sciences.

Steve has a range of research interests investigating both developmental and acquired disorders of the blood and skin in mouse models. At a basic level, this involves the study of gene transcription. He currently holds a number of NH&MRC and other competitive grants. He has published over 100 papers including articles in *Science*, *Nature Medicine*, *Cancer Cell* and *Developmental Cell*.

Steve has made translational research a major focus of CCS research programs, where breakthroughs in basic science can be rapidly adapted in the clinical setting to improve patient outcomes. All CCS departments boast brilliant results in this area, from restoration of immune function to fight chronic lymphocytic leukaemia by the Department of Immunology to understanding the genetics underpinning skull and face deformities by the Department of Medicine. The research areas that the CCS is engaged in are some of the most technically difficult ones in medicine, adding to the development of 'personalised' medicine where treatments are increasingly tailored to a person's unique genetic profile.

This research focus is now being reflected in both our undergraduate and postgraduate teaching to Science, Biomedical Science, Human Pathology and MBBS students, leading to intense interest from students to study at The Alfred Medical Research and Education Precinct (AMREP).

2015 has seen the launch of a translational PhD and Graduate Certificate program, the first of their kind in Australia. With the bevy of research students working in its laboratories, CCS provides a vigorous and lively scientific environment. The students contribute significantly to CCS's productivity, and in return, CCS mentors and trains our future leaders in medical research. This environment is further enriched with the continuing recruitment of highly talented research leaders, addition of departments including Monash Alfred Psychiatry research centre and Melbourne Sexual Health Centre, and maintaining investment in research platforms at AMREP including upgraded flow facilities.

The school is also committed to creating a higher public profile and community awareness of the achievements and contributions to the nation's health of the medical research being undertaken at AMREP. Its public lectures have been on the topics of Immunology, Allergy, Irritable Bowel Syndrome and the low FODMAP diet, HIV, and in 2015, on Women's mental health.

Current Research Programs – Central Clinical School



Professor
Robyn O'Hehir, HOD

Department of Allergy, Immunology and Respiratory Medicine (AIRMed)

AIRMed has a comprehensive spectrum of expertise in advanced lung diseases including asthma, lung transplantation, cystic fibrosis, pulmonary hypertension, COPD and sleep disordered breathing, allergy and clinical immunology.



Professor Jennifer
Wilkinson-Berka,
A/g HOD

Department of Immunology

The Department of Immunology undertakes research in respiratory, metabolic, cardiovascular and infectious diseases. This provides valuable opportunities for the Department to engage in strong cross-field collaborative and clinically relevant research programs with partners at AMREP.



Professor
Paul Myles, HOD

Department of Anaesthesia and Perioperative Medicine

The Department of Anaesthesia and Perioperative Medicine undertakes research and teaching at undergraduate and postgraduate level in fields such as molecular pharmacology, traditional pharmacology and physiology, clinical neurophysiology, clinical research in acute and chronic pain states and epidemiology.



Professor
Anton Peleg, HOD

Department of Infectious Diseases

The Department of Infectious Diseases offers clinical and biomedical research and education in general infectious diseases, tuberculosis, respiratory infections, HIV/AIDS, sexually transmissible infections, and travel related infections.



Professor
Harshal Nandurkar,
HOD

Australian Centre for Blood Diseases (ACBD)

Research and education at the ACBD focuses on the translation of scientific discoveries into improved outcomes for patients with blood cancers, thrombosis and bleeding disorders. The ACBD is affiliated with The Alfred's Haematology Department.



Professor
Stephen Jane,
HOD, HOS

Department of Medicine

The Department of Medicine is a centre for clinical and biomedical research and education, offering undergraduate and postgraduate study programs. Research encompasses programs in Dermatology, Developmental biology, Hormones and Vasculature, Molecular Endocrinology, Neuroscience, Oncology, Pathology and Skin Cancer



Professor
Peter Gibson, HOD

Department of Gastroenterology

The Department of Gastroenterology undertakes research in gastroenterology and intestinal health and disease in nutrition & diet, liver research into viral hepatitis and its therapy, chronic liver disease and its complications, endoscopy research involving the evaluation of quality of procedure, new therapeutic techniques and bowel disease methodologies.



Professor
Christopher Fairley,
HOD

Melbourne Sexual Health Centre (MSHC)

MSHC is a specialised unit for the diagnosis and treatment of sexually transmissible infections (STI/HIV) and is a principal centre for training health professionals in Victoria. The Centre conducts epidemiological, public health and clinical research primarily aimed at improving the services offered at MSHC



Professor
Jayashri Kulkarni,
HOD

Monash Alfred Psychiatry research centre (MAPrc)

MAPrc is one of Australia's largest clinical research centres in psychiatry. The key goal of MAPrc is to conduct clinical research aimed at developing new treatments with direct, effective, and immediate applications. The research covers all ages and many different mental illnesses.

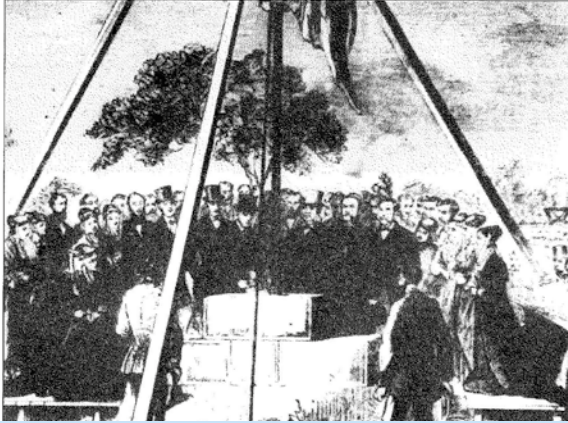


Professor
Wendy Brown, HOD

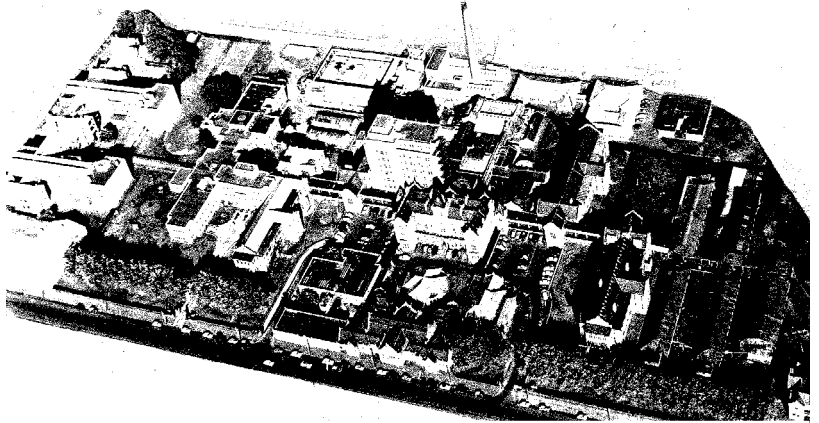
Department of Surgery

The Department of Surgery undertakes research in a wide variety of areas including trauma, burns, cardiothoracic, colorectal, endocrine, upper gastrointestinal, urology, orthopaedics, spine injury, general surgery and neurosurgery specialisations. The Department of Surgery is closely associated with the National Trauma Research Institute

School Photographs From Then to Now Places



Genesis. Prince Alfred setting The Alfred Hospital's foundation stone, 1869.



From Victoriana (above) to the 1990s (below), including the helipad for the Trauma Centre which opened in 1990.



The Baker Pathology, Biochemistry and animal house in 1927.



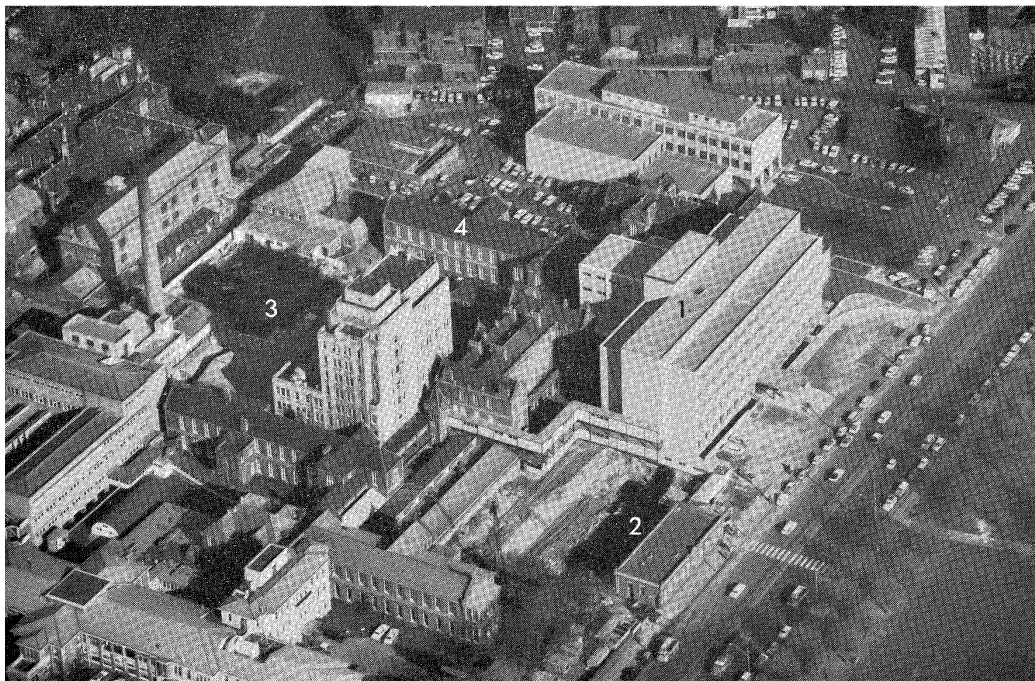
Pre-helipad arrival in Fawkner Park. Transfer of patient to hospital took up to 20 minutes.



2012: Adding a 200 seat lecture theatre has substantially improved the AMREP Education Centre's capacity.



1963 The Monash Medical School building under construction.

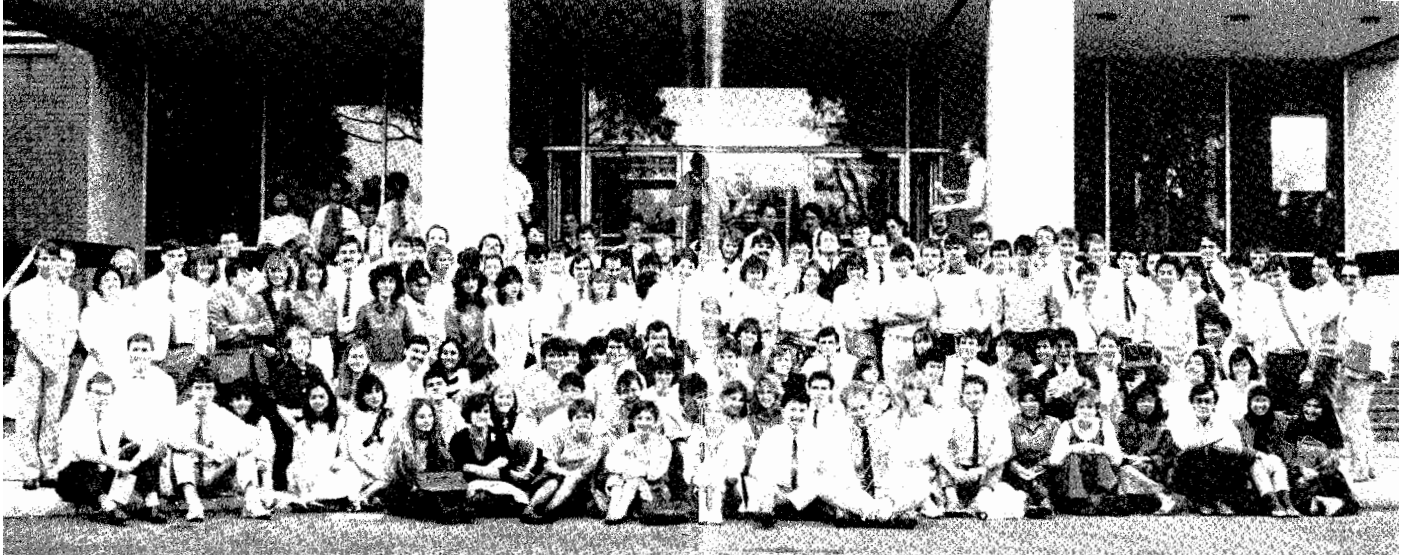


1965 The Alfred site under massive reconstruction for planned future expansion



2015: The Alfred Centre, Burnet and BakerIDI institutes along the AMREP frontage. Co-location has been vital for successful collaborations.

School Photographs From Then to Now Faces



Class of '79: Monash medical graduates.



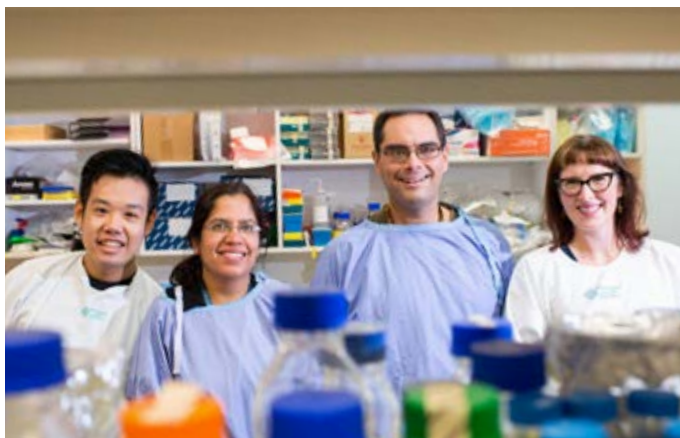
Class of '85: Monash medical graduates.



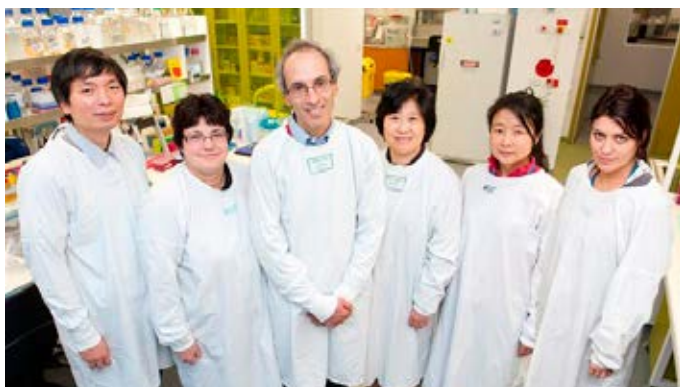
Steve Wesselingh, from SA via Monash and back to SA.



1986 European CF Conference L-R: Robyn 'J' Hehir (one of that class of '79), CF Service registrar; Dr Glenn Bowes, Physician; Ms Jane Harris, Social Worker; Ms Rosemary Moore, Physiotherapist; Ms Ibolya Nyulasi, Dietitian.



2013 Epidermal Development group. L-R: Mr Michael Cangkrama, Ms Seema Srivastava, Dr Sebastian Dworkin, Ms Alana Auden.



2011 Molecular endocrinology research group: Dr Zhiyong Yang (Post Doc) Dr Anne McRobert (Post Doc), Professor Leon Bach (Lab Head), Dr Ping Fu (Post Doc), Dr Yinghui Liu (Visiting Scientist), Ms Andrea Young (Research Officer).



Shanzana Khan, Baker IDI PhD student, who won the 2015 CCS 3MT heat.



2015 Red Lab Coat day – Dr Steven Petratos' group which investigates stem cell therapies for brain disorders raising awareness for multiple sclerosis research. L-R Miss Erica Kim (MBSMedSc student), Dr Steven Petratos (group leader), Mrs Maha Bakhuraysah (PhD student), Mrs Amani Alrehaili (PhD student), Ms Kylie Magee (Laboratory Manager), Mrs Pei Mun Aui (Research Assistant), Mr Jae Young Lee (PhD student), Miss Melissa Biemond (Honours student), Dr Beatriz Garcillan (Research Fellow associated with Immunology BAFF lab).

Education Programs

Central Clinical School has expanded its educational program substantially since it began to include not only undergraduate medical students and graduate research students - its original catchment - but also Immunology, Medical Biology and Human Pathology Honours streams and Honours for MBBS students.

In 2015 the school collaborated with Monash sister clinical schools and Monash Partners to launch a Translational Research program featuring a Graduate Certificate and PhD with course work units emphasising skills needed for moving basic research into clinical translation.

MBBS teaching at Central Clinical School



Head: Associate Professor Anne Powell

Central Clinical School oversees medical education at The Alfred, Cabrini, Caulfield, Epworth, Frankston and Sandringham hospitals and coordinates closely with Peninsula Health and Epworth Health for student rotations.

Years 3, 4 and 5 MBBS students undertake rotations and clinical placements in medicine and surgery across a range of specialties and campuses.

www.med.monash.edu/cecs/education/umed/index.html

Undergraduate and related medicine subjects

Several hundred undergraduate students are enrolled each year in subjects taught by CCS academics in the areas of Immunology and Human Pathology.

www.med.monash.edu/cecs/education/undergrad-future.html

Honours



Immunology coordinators: Associate Professor Mark Wright and Professor Magdalena Plebanski

Intake streams for Immunology are: Bachelor of Science, Bachelor of Biomedical Science and Bachelor of Biotechnology.

www.med.monash.edu/cecs/education/honours.html



Human Pathology coordinator: Dr Justin Hamilton

Intake stream for Human Pathology is: Bachelor of Science

www.med.monash.edu/cecs/education/bmedsc-honours.html



Bachelor of Medical Science (Hons) coordinator: Professor Jenny Hoy

Open to 3rd, 4th & 5th year MBBS.



Postgraduate studies



Graduate Certificate (Translational Research) and research coursework within the PhD – Coordinator Dr Steven Petratos

www.med.monash.edu/cecs/education/translational/

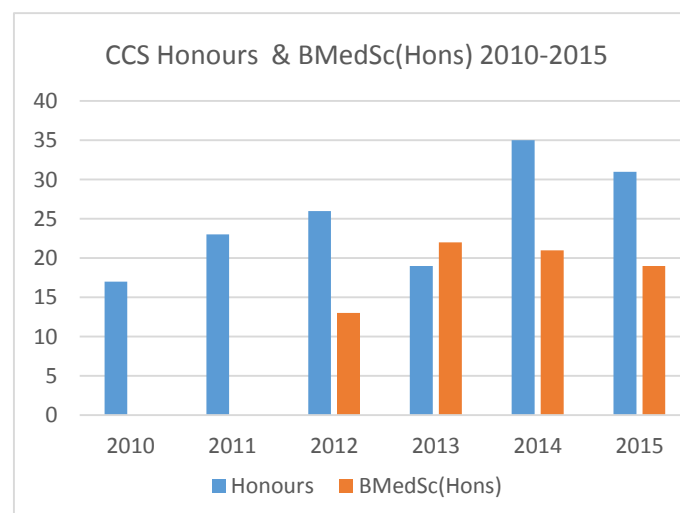
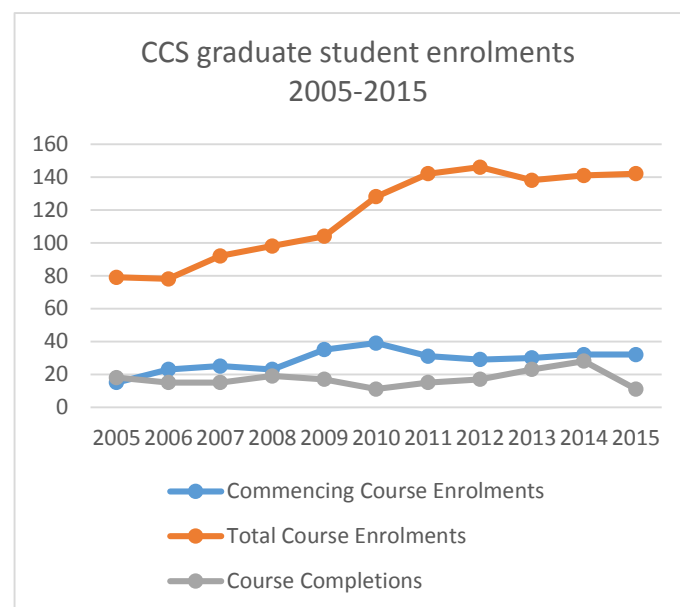


Graduate Research (Masters, PhD) – Coordinators Professor Rob Medcalf, Associate Professor Frank Alderuccio

www.med.monash.edu.au/cecs/education/hdr-future



Honours & graduate student enrolments for last 10 years



Speaker Biographies



Emeritus Professor Hatem Salem AM

Hatem Salem is currently an Emeritus Professor at Monash University as well as a senior Counsellor of the International Society of Thrombosis and Haemostasis. Prior to this, Professor Salem was the Head of both the Department of Clinical Haematology at Monash University and Clinical Haematology at The Alfred Hospital.

Professor Salem's lifetime interest has been in blood disorders, in particular thrombosis (clotting problems) and haemostasis (the body's processes for stopping wounds from bleeding).

He is a Fellow of the Royal Australasian College of Physicians and the Royal College of Pathologists of Australasia, a licentiate and member of the Royal College of Physicians (UK) and a member of the Royal College of Surgeons (London). He received his basic medical degree from the University of Mosul, Iraq in 1977 and his doctorate degree from Monash University in 1984 under the supervision of Barry Firkin.

Professor Salem's clinical and laboratory research interest is mainly in the field of thrombosis and haemostasis. He has published in excess of 140 peer reviewed articles in international journals, received many awards and grants throughout his career, and has supervised the training of countless PhD graduates, two of whom head respectively the Monash Faculty of Medicine, Nursing and Health Sciences, and the Central Clinical School within that Faculty.

In 2005, Professor Salem's vision and ability to develop leading clinical and research programs was recognised by the Victorian Government's Public Healthcare Award, where he was the recipient of the Health Minister's Award for Outstanding Individual Achievement. In 2010 Professor Salem was appointed a Member of the Order of Australia (AM) for service to medicine in the field of haematology as a clinician, educator and researcher and also through the establishment of the Australian Centre for Blood Diseases.



Emeritus Professor Napier Thomson AM

Emeritus Professor Napier Thomson AM was Head of the Monash University Central Clinical School based at The Alfred Hospital in Prahran 2001-2011. His research history and current activity is in renal (kidney) medicine. He has been teaching medical students in Monash University since 1976.

Professor Thomson was Director of Renal Medicine at The Alfred and until 2007 was also Director of the Department of General Medicine (which Department he developed). Until 1998 he served as the Faculty's Associate Dean (Clinical). He has also mentored many early career doctors through the Royal Australasian College of Physicians, and became President of the RACP in 2006. In 2008 he was elected as the President of the International Society of Internal Medicine.

Since Professor Thomson's appointment as Professor of Medicine at the Medical School at The Alfred, the Department developed its research program to include the major areas of respiratory medicine and lung transplantation, infectious diseases, diabetes, neuroscience, haematology (ACBD) pharmacology of heart failure allergy, and renal disease.

In June 2009, Professor Thomson was appointed a Member of the Order of Australia for services to medicine, research, medical education and professional associations and in 2010 he received the David de Kretser Medal, awarded for outstanding contributions to the Faculty of Medicine, Nursing and Health Sciences at Monash University. He is currently the chairman of the Monash University Human Research Ethic Committee.

Speaker Biographies



Professor Steve Wesselingh

Professor Steve Wesselingh is the inaugural Executive Director of the South Australian Health and Medical Research Institute (SAHMRI). He has also been appointed as the Infection and Immunity Theme Leader for the institute.

Professor Wesselingh was Dean of the Faculty of Medicine, Nursing and Health Sciences at Monash University from 2007-2011. Prior to taking up the Deanship, he was Director of the Burnet Institute, an independent medical research institute specialising in infectious diseases, immunology and public health.

An Infectious Diseases Physician and researcher in Neurovirology, HIV and vaccine development; his work is consistently aimed towards the integration of high quality medical research with health-care delivery, leading to improved health outcomes for Australia and the poorly resourced countries of the region.

Professor Wesselingh undertook his undergraduate and doctoral training at Flinders University/Flinders Medical Centre in South Australia and his post-doctoral training at Johns Hopkins in the United States.



Professor Jayashri Kulkarni

Professor Jayashri Kulkarni is a Professor of Psychiatry and the director of Monash Alfred Psychiatry Research Centre (MAPrc) – one Australia's largest and most innovative centres for clinical mental health research. She is internationally recognised for her expertise in the treatment of mental illness, particularly in

women's mental health. She has pioneered the use of estrogen as a treatment in schizophrenia and has developed many other innovative treatments for mental illnesses.

Professor Kulkarni graduated from Monash Medical School and became a Fellow of the Royal Australian and New Zealand College of Psychiatrists in 1989.

She is a passionate advocate of patient-focused mental health research. With more than a third of mental illness sufferers not responsive to current treatments, she believes there is an urgent need for investment in clinical psychiatry research so as new and effective treatments for mental illness can be developed. She is a regular media commentator on mental health related issues.

The aim of Monash Alfred Psychiatry Research Centre is to develop new treatments, new understanding and new service deliveries for people with mental illness. It is a world leader in the translation of cutting edge neuroscience discoveries into innovative, life-changing treatments for people with mental illness.



Professor Ian Davis

Professor Ian Davis is a medical oncologist and is Professor of Medicine and Head of the Eastern Health Clinical School, Monash University and Eastern Health, in Melbourne, Australia.

Professor Davis's primary clinical interests are in urologic cancer and melanoma. His primary research interests are in cancer immunology and the biology of urologic cancers.

Professor Davis is a member of the Cancer Council Victoria Urology and Skin Committees and the Standing Subcommittee on Research. He established and chairs the COSA Urologic Oncology Group and the Australian and New Zealand Urogenital and Prostate Cancer Trials Group Ltd (ANZUP).

Speaker Biographies



Professor Eric Morand

Professor Eric Morand is Head of the School of Clinical Sciences at Monash Health, Monash University. He is a Professor of Medicine and Rheumatic Diseases, research group leader in the Monash Centre for Inflammatory Diseases, the Director of Rheumatology at Monash Health and Founder of the Lupus Clinic at Monash Health.

Trained as a specialist physician in rheumatology in Australia and at the Royal National Hospital for Rheumatic Diseases UK, Professor Morand has led the rheumatic diseases group of the Monash Centre for Inflammatory Diseases since the mid 1990s. He has held Program and Project grants from NH&MRC, NIH, and Royal Australasian College of Physicians, and served on the Council of the Australian Rheumatology Association and chaired its Scientific Program and Research Committee. He has published over 120 peer-reviewed publications, book chapters and patents. The main focus of his research has been the actions of glucocorticoid-regulated proteins in inflammatory processes relevant to rheumatoid arthritis and systemic lupus erythematosus.

Professor Morand founded the Monash Lupus Clinic in 2006. This is Australia's only multidisciplinary clinic focussed on SLE, and hosts the Monash Lupus database, Australia's largest longitudinal collection of clinical data and matching serum/DNA bank. In 2012 he became the Director of Rheumatology at Monash Health.

Professor Morand is Head of the School of Clinical Sciences at Monash Health, now the largest site for clinical teaching in Australia's largest medical degree. Prior to becoming Head of School in 2011, Eric chaired the Clinical Skills Theme of the Monash MBBS degree and served as Year III MBBS coordinator at Southern Clinical School.



Professor Robyn O'Hehir

A key scientist in international allergy research for over 25 years, Professor Robyn O'Hehir is an academic clinician-scientist who successfully combines a strong basic research record with a continuing commitment to clinical medicine at a senior level. She is Professor and Director of Allergy, Immunology and Respiratory Medicine at the Central Clinical School, Monash University, and The Alfred hospital.

Professor O'Hehir has a sustained record of success in competitive grant funding, including Wellcome Trust and NHMRC, and was Monash Director of the Co-operative Research Centre for Asthma and Airways for 12 years. She has more than 235 publications, including three books and 16 patents.

Professor O'Hehir's research culminated in demonstration of CD4+ T cell anergy induction by high dose CD4+ T-cell epitope peptides, focusing initially on house dust mite allergens. Her approach of using dominant T cell epitope peptides for hypoallergenic allergen-specific immunotherapy was developed by Imperial College London spinout company Circassia® with successful phase 3 trials for cat allergy. Recently house dust mite data generated by Professor O'Hehir during her Wellcome Trust postdoctoral research, and grass pollen IP generated by her Monash Allergy Team (O'Hehir and Rolland) and assigned to Circassia®, successfully completed phase 2 clinical trials for house dust mite and grass pollen allergy.

Professor O'Hehir's team has now identified the critical sequences of peptides of the two major peanut proteins that interact with T cells and build immunological tolerance, but do not bind allergy antibody (IgE) and cause anaphylaxis. These "dominant fragments or peptides" are the best candidates for a safe peanut allergy vaccine. This research, supported by Ilhan Food Allergy Foundation, NHMRC and Alfred Trusts, has recently been granted A\$2 million from the Medical Research Commercialisation Fund, Australia, for phase 1-2 trial in persons affected by peanut allergy.

Speaker Biographies



Dr Jane Muir

Dr Jane Muir has over 20 years' experience in the area of nutrition research and is currently Head of Translational Nutrition Science, Department of Gastroenterology in The Central Clinical School. Her research has focused on understanding the role of carbohydrates in the health of the gastrointestinal tract. In her current position, Dr Muir works in collaboration with Professor Peter Gibson, Head of Gastroenterology.

A major area of their research involves investigating the role of poorly absorbed short chain carbohydrates (called FODMAPs) on the genesis of symptoms in patients with of functional gut disorders such as irritable bowel syndrome (IBS).

Over the last 10 years their team has proved a strong evidence base for the use of the Low FODMAP diet to control gastrointestinal symptoms associated with IBS. Dr Muir has helped to establish the techniques to quantify the various FODMAP carbohydrates in foods. The team at Monash have assembled the largest FODMAP food composition tables which have been essential for research into studying the physiological effects of these sugars in the gastrointestinal tract.

Dr Muir leads the team that developed the 'Monash University Low FODMAP diet apps' (for smartphones) which have greatly assisted with the translation of this new diet therapy for controlling IBS symptoms around the world. Dr Muir is now Scientific Director of the 'Monash FODMAP initiative' that is currently engaged in commercialising the FODMAP research.



Professor Christopher Fairley

Professor Christopher Fairley is Director of the Melbourne Sexual Health Centre (MSHC) and Professor of Public Health at Monash University. He holds three specialist medical fellowships from the College of Physicians. He is an editor of the Journal 'Sexual Health'. His principal research interests are the public health control of sexually transmitted diseases and the effectiveness of clinical services. He holds a current NHMRC program grant, has supervised over 20 doctoral students to completion and has about 450 publications.

MSHC provides about 40,000 clinical consultations a year to those at high risk of sexually transmitted infections (STIs) and HIV. The Sexual Health Department (SHD) within the Central Clinical School is the academic focus for the centre.



Professor Euan Wallace

Professor Euan Wallace is the Carl Wood Professor and Head of Department of Obstetrics and Gynaecology, Monash University and Director of Obstetric Services, Monash Health.

He completed his clinical and research training at the University of Edinburgh and the MRC Reproductive Biology Unit, Edinburgh, Scotland. His clinical interests are in high risk pregnancy including fetal growth restriction, multiple pregnancy, preeclampsia and maternal medical disorders. Professor Wallace's research group is within The Ritchie Centre at the School of Clinical Sciences and The Hudson Institute where he has a basic and clinical research program in fetal development, preeclampsia and cell therapies.

Speaker Biographies



Associate Professor Ian Street

Associate Professor Ian Street is Chief Scientific Officer of the Cancer Therapeutics Cooperative Research Centre (CTx) and Head of a laboratory in the Division of Systems Biology and Personalised Medicine at the Walter and Eliza Hall Institute (WEHI). His scientific training is in chemistry and biochemistry. However, over the 25 years of his career as an independent scientist his passion has been applying these skills to translational research; in particular small molecule drug discovery. Ian spent 11 years in the pharmaceutical industry (International and Australian) and, in 2001 joined WEHI as a Laboratory Head.

Since joining the Institute he also established the WEHI High Throughput Screening Laboratory, the first academic group of its kind in Australia. In 2007, Associate Professor Street founded CTx, Australia's first cooperative enterprise dedicated to the development of new cancer therapies which is now funded to 2020. CTx produces high-quality novel drug development candidates for commercialisation, and provides an important mechanism for engagement of researchers and industry. To date CTx has delivered four drug development candidates to its commercial partners and with the recent extension of funding, plans to deliver another five and in addition launch a national tailored treatment platform for paediatric cancers.



Associate Professor Suresh Sundram

Associate Professor Suresh Sundram has recently been made Unit Head for adult psychiatry at Monash Medical Centre and has an appointment with the School of Clinical Sciences (SCS) at Monash Health.

Associate Professor Sundram plans to establish a psychiatric neuroscience research program in the Department of Psychiatry at SCS, focussing on psychotic disorders. He has a particular interest in schizophrenia, with a broad translational approach.

He will use several methodologies for his research, including study of cellular and molecular aspects of post-mortem human and animal brain relevant to psychotic disorders; animal behaviour studies using transgenic models of psychosis; and biomarker studies in clinical samples using genetic, protein and electrophysiological measures.

In addition to the above, Associate Professor Sundram will also establish a clinical trials research group evaluating new treatments for these disorders in order to build a unique translational research program in psychotic disorders that utilises clinical and biomarker data to understand the molecular bases of psychotic disorders, and in turn generate novel treatments and diagnostics for this patient group.

Beyond his research and clinical work, Associate Professor Sundram has a strong interest in asylum seeker mental health and mental health service system development in low and middle income countries. He runs a pro bono psychiatric clinic for asylum seekers, and provides expert advice to national governments and human rights and non-government organisations.

Prior to joining Monash Health and Monash University, Associate Professor Sundram was Director of Clinical Services for Northern Area Mental Health Services, Head of Molecular Psychopharmacology and the Psychotropic Drug Advisory Service at the Florey Institute of Neuroscience and Mental Health, and the Director of the Northern Psychiatry Research Centre.

Speaker Biographies



Associate Professor David Curtis

Associate Professor David Curtis is a Viertel Medical Research Fellow at the Australian Centre for Blood Diseases based at The Alfred Hospital, Melbourne.

Following medical training as a clinical haematologist and bone marrow transplant physician, Associate Professor Curtis completed his PhD at the Walter and Eliza Hall Institute for Medical Research WEHI in 1998, where he utilised transgenic mouse models to study oncogene collaboration in leukemia.

After a three year post-doctoral stint at the National Institutes of Health, USA, Associate Professor Curtis returned to establish an independent research program using mouse models to understand the genetic and epigenetic regulation of hematopoietic stem cells.

His translational research strategy is to develop and study mice that harbour common gene mutations found in human acute leukaemia, focusing on leukemic stem cells; rare cells within the leukaemia that are responsible for the development of leukaemia and resistance to our current treatments.



Professor Ingrid Scheffer AO

Professor Ingrid Scheffer is a physician-scientist whose work as a paediatric neurologist at the University of Melbourne and Florey Institute has led the field of epilepsy genetics over 20 years, with Professor Samuel Berkovic and molecular geneticists. This resulted in identification of the first epilepsy gene and many genes subsequently.

Professor Scheffer has described many novel epilepsy syndromes and genotype–phenotype correlation. She recently led the first reclassification of the epilepsies in two decades as Chair of the International League Against Epilepsy Commission for Classification. Her awards include American Epilepsy Society Clinical Research Award and L'Oréal-UNESCO Women in Science Laureate for the Asia-Pacific region.

In 2014, she was elected as a Fellow of the Australian Academy of Science and as inaugural Vice-President of the Australian Academy of Health and Medical Sciences. Professor Scheffer was awarded the Order of Australia and, together with Professor Berkovic, the Prime Minister's Prize for Science.



Professor Christina Mitchell

Professor Christina Mitchell is Dean of the Faculty of Medicine, Nursing and Health Sciences at Monash University. Professor Mitchell trained as a physician scientist specialising in clinical haematology. She received her medical training from Melbourne University and consultant training in Haematology at The Alfred Hospital, Melbourne. Her advanced clinical training in Haematology included a Ph.D. characterising the natural anticoagulant protein C and protein S.

Professor Mitchell's work for the last twenty years has focussed on characterising the function of unknown genes that regulate cell proliferation and growth, and when mutated or deleted lead to human disease.

Young Investigator Award

Poster presentations: 4.30 – 8.00pm



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Ms Samantha Barton, Hudson Institute

Poster Title:

Prophylactic high dose erythropoietin as a potential therapeutic for ventilation-induced brain injury in preterm neonates.



Ms Simone Gibson, SCS

Poster Title:

A mixed methods study exploring students performing patient malnutrition risk screening



Dr Marina Carpinelli, Medicine

Poster Title:

Grainyhead-like 2 in craniofacial development.



Ms Marina Iacovou, Gastroenterology

Poster Title:

Dietary modifications of the maternal diet among breastfeeding mothers.



Ms Jorja Collins, SCS*

Poster Title:

Evaluating an innovative foodservice approach to malnutrition in healthcare.



Dr Jay Jha, Baker IDI

Poster Title:

Genetic deletion & pharma-cological inhibition of the NADPH Oxidase Nox4 provides renoprotection in STZ induced diabetes.



Ms Natalia Contreras, MAPrc*

Poster Title:

How effective is Cognitive Remediation in enhancing vocational outcomes for job seekers with severe mental illness in Australia?



Dr Chris Karayiannis, SCS

Poster Title:

MRI markers of intracerebral haemorrhage in stroke patients with atrial fibrillation.



Ms Ashlee Conway, ACBD*

Poster Title:

Mutagenesis mouse model of TPI deficiency provides novel opportunity to utilise bone marrow trans-plantation in congenital haemolytic anaemias.



Mr Jae Young Lee, Medicine

Poster Title:

Overcoming genetic blockade of monocarboxylate transporter 8 (MCT8)-dependent T3 transport to potentiate human oligodendrocyte differentiation and myelination.



Ms Maria Daglas, ACBD

Poster Title:

Is the adaptive immune response detrimental in TBI?



Mr Christopher Molloy, Baker IDI

Poster Title:

Shear sensitive nano capsules for site specific drug release: effective anti-thrombotic therapy without bleeding risk.



Mrs Judy Moore, Gastroenterology

Poster Title:

Women with endometriosis experiencing bowel symptoms benefit from a low FODMAP diet.



Mrs Elizabeth Thomas, MAPrc

Poster Title:

The Neuregulin-1 gene is associated with schizotypy in a non-clinical population.



Dr Hanh Nguyen, SCS

Poster Title:

Delay in oestrogen commencement is associated with lower spine and hip bone mineral density in Turner Syndrome.



Dr Anne Trinh, Hudson Institute

Poster Title:

Musculoskeletal and hormonal health in adults with cerebral palsy: new opportunities for intervention.



Ms Madison Paton, SCS

Poster Title:

Umbilical cord blood stem cells: a new line of defence against Cerebral Palsy.



Ms Caroline Tuck, Gastroenterology

Poster Title:

Adding glucose to fructose reduces breath hydrogen but not symptoms in fructose malabsorbers with a functional bowel disorder.



Mr Alexander Rodriguez, SCS

Poster Title:

Low relative muscle mass is associated with increased presence and severity of aortic calcification.



Dr Nicole Van Bergen, Baker IDI

Poster Title:

Mitochondrial impairments in glaucoma.



Dr Maithili Sashindranath, ACBD

Poster Title:

Targeting the plasminogen activation system in traumatic brain injury.



Ms CK Yao, Gastroenterology

Poster Title:

Ranking fermentability of fibre supplements using a gas-production screening tool.



Dr Nick Scott, Burnet Institute

Poster Title:

Cost-effectiveness of treating chronic hepatitis C virus with direct-acting antivirals in people who inject drugs.



Dr Michelle Yong, Infectious Diseases

Poster Title:

Frequency of cytomegalovirus (CMV)-specific CD8+ T Cells distinguishes CMV clinical outcomes following hematopoietic allogeneic cell transplant.



Dr Rebecca Segrave, MAPrc

Poster Title:

Retraining the brain to beat depression: tDCS and Cognitive Control Training.



ACBD: Australian Centre for Blood Diseases

Baker IDI: The Baker IDI Heart and Diabetes Institute

Burnet: The MacFarlane Burnet Institute

MAPrc: Monash Alfred Psychiatry research centre

SCS: School of Clinical Sciences, Monash Health

Sponsors and Partners

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Thank you to our AMREP & Monash connections

- Mr Peter Frawley, Alfred Health archivist, provided access to documents and photographs used to compile this program booklet, in particular Faces and Places series (1996-2010) compiled by Alfred Health Heritage Committee
- Early and Mid-Career Researchers at The Alfred Medical Research and Education Precinct (EMCR@AMREP) for attending on the night and making the experience richer for guests. See more about their activities at www.med.monash.edu/cecs/ecr/
- Faculty Alumni representative, Ms Meghan Griffin, for further information about Faculty support for reunions and other alumni opportunities
- Drs Renee White and Aislin Spencer, both recent graduates, who have embarked on different career paths. They will be with the EMCR group
- Monash Medical Orchestra chamber music group.



Professor Stephen Jane (right) with recently graduated PhD student Michael Cangrama, researching skin formation and maintenance.

Notes

Further information

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