



Mercy Public Hospitals Inc Research Report 2011





The hexagon is a geometric shape that repeatedly occurs in nature. It is self assembling and creates strong structures, such as the honeycombs found in beehives. In the same way, our research teams work together to explore the building blocks of life and assemble knowledge banks that can be used clinically and scientifically.

Mercy Public Hospitals Inc Research Report 2011



Prepared by the
Academic Research and Development Committee,
Mercy Health

Mercy Health's vision is to build an enduring capacity
and passion to serve those with special needs.

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Associate Professor David Allen
Chairman, Academic Research
and Development Committee,
Mercy Health

The 2011 Mercy Public Hospitals Inc Research Report is our fourth annual report covering some key clinical research and academic achievements during the year. Our research output continues to grow and we remain proud of the high quality work produced by our many investigators.

Of course this would not be possible without the funding bodies and committees that support research and we are grateful to all our funders, donors and supporting committees. I would like to mention the Mercy Health Human

Highlights



Research Ethics Committee which ensures that projects are undertaken within national and Mercy Health guidelines. Their efficient and thoughtful handling of a large number of projects is much appreciated.

I would also like to mention the Medical Research Foundation for Women and Babies, which contributed \$314,764 in 2011 and has been an ongoing supporter of Mercy Public Hospitals Inc. Many of the projects supported by the Foundation are documented in this report.

I again thank those members of staff who have contributed to this report and make special mention of the contributions made by the university departments who have strong alliances with Mercy Health: The University of Melbourne, La Trobe University, The University of Notre Dame Australia and Australian Catholic University.

We are proud of our researchers and our contributing partners. Their efforts increase our collective knowledge and improve clinical outcomes for our patients.





Adjunct Professor Stephen Cornelissen
Chief Executive Officer,
Mercy Health



Dedicated teams for better health outcomes

Mercy Health's commitment to education,
research and innovation continues to grow strongly.

Our teams of clinicians and researchers have again produced a substantial body of work that will see improvements in the way we provide care in obstetrics, gynaecology, mental health, paediatrics, reproductive medicine, aged care, midwifery, nursing and palliative care.

Much of our research and development would not be possible were it not for the support and collaboration of many individuals and organisations. Mercy Health enjoys strong and collaborative relationships with numerous universities which work with us in a common goal to improve the outcomes for those we serve. We also work closely with a range of services to advance our research and, it goes without saying, much of this would not be possible without financial support from many sources, in particular the Government.

Another important area which supports our research endeavours is Mercy Health Foundation. The Foundation has been created for the sole purpose of seeking philanthropic support to advance teaching, training and development in the areas of health, aged and community care. Over recent years the Foundation has created new opportunities for research through the inaugural Chair of Aged Care (2011) and the Sheila Handbury Chair of Maternal Fetal Medicine (2010). These opportunities will continue to make significant impacts on the way we provide care to people in hospitals and the community.

These initiatives have been supported not only by our many donors but also through specific engaged philanthropic support of bodies like The Trust Company, which has made significant and longer term commitments to advancing research and care through our academic chair positions.

I would like to thank all of our project partners, sponsors, donors and funders for enabling these important works to take place – and I congratulate our many dedicated clinicians, researchers and administrative staff who achieve such outstanding results each year.





Dr Clare Whitehead
Researcher





Changes in the blood give new insight into growth restricted babies

In October 2011, Dr Clare Whitehead – a researcher in the Translational Obstetrics Group at Mercy Hospital for Women – received two of seven prizes awarded during Austin LifeSciences Research Week: the GlaxoSmithKline Young Researcher Award (the top award of Research Week) and the Austin Medical Research Foundation Young Investigator Award.

These awards were given for her research into developing a new blood test that measures molecules released by a mother's placenta to determine how a baby is coping in the womb.

The current tools used to determine the health of a baby in the womb are regular monitoring and ultrasound – both of which are relatively basic tools. Dr Whitehead's blood test aims to deliver more accurate and specific information about a baby's wellbeing in the womb that could directly affect infant morbidity and mortality rates. "It's an area that needed research and a novel, new technique that we could apply to our investigations," said Dr Whitehead.

Associate Professor Stephen Tong who heads the Translational Obstetrics Group initially came up with the idea of studying the blood more closely, an idea which was based on some early cancer research. "Using some of these research concepts we decided to see whether we could detect changes in the blood that were occurring over time as the baby became increasingly unwell; a technique that had not previously been studied in pregnancy."

Dr Whitehead, who is also a registrar in training at Mercy Hospital for Women, is specifically interested in pregnancies where the baby is not growing properly at an early stage. "My main area of research is in diseases of the placenta including fetal growth restriction and preeclampsia. At the moment there is not a good test to predict or diagnose either of those conditions so we're trying to look at tiny parts of the placenta that break off into the mother's blood that contain genes from within the placenta to provide information about what's happening in the placenta at that particular time.

"The research that I'm doing is looking at very preterm babies, less than 34 weeks' gestation, who haven't grown properly because the placenta is not providing them with enough nutrition and oxygen. We're trying to develop a test that will help us decide exactly when the right time would be to deliver those babies and reduce the risk of them dying while they're still in the womb."

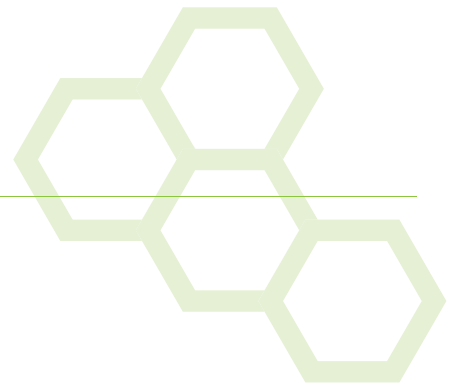
After two years of initial work on the project, Dr Whitehead's team conducted clinical trials in three tertiary centres in Melbourne: Mercy Hospital for Women, Monash Medical Centre and The Royal Women's Hospital.

"We've received government NMHRC funding to extend those trials across Australia, New Zealand and the UK, which will increase our numbers so we can see whether it's a test that really works well.

"We're targeting a small group of patients but the impact on them could be very large. The research at this stage is still experimental, but we are working toward achieving better tests and treatments for mothers and babies."

Originally from Scotland, Dr Whitehead said she always knew she would do research. "When the opportunity arose to work in my area of interest I decided to stay in Australia and at Mercy Hospital for Women. We have a great project team and the results are promising."





Insights into women's and babies' health

Department of Obstetrics and Gynaecology University of Melbourne/Mercy Hospital for Women

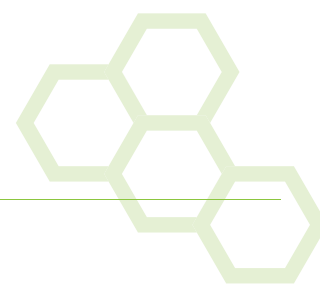
In a year of significant achievements, the Department of Obstetrics and Gynaecology has delivered strong research outcomes that will see improvements in women's and babies' healthcare in the short and long term.

One of the key drivers in research activity in the department has been the appointment of Associate Professor Stephen Tong who heads The Translational Obstetrics Group. This group

includes a postdoctoral scientist, Dr Tu'uhevaha Kaitu'u-Lino and three PhD students, Dr Kirsten Palmer, Dr Clare Whitehead and Dr Monika Skubicz, who are combining their clinical responsibilities as trainees with an intensive research agenda. Their focus is on scientific discoveries that can directly impact the care of pregnant women and, together, they have greatly increased research activity in the department and extended their project networks across Australia.



Translational Obstetrics Group (L-R) Dr Louie Ye, Dr Tu'uhevaha Kaitu'u-Lino, Dr Clare Whitehead, Laura Tuohey, Associate Professor Stephen Tong.



Key activity

Improving care in pregnancy

The Translational Obstetrics Group is developing novel ways to cure ectopic pregnancies using medication rather than surgery, which may allow women to completely avoid operations for treatment of ectopic pregnancies.

In 2011, the Translational Obstetrics Group led an international phase one study (in Melbourne and Edinburgh) administering a single injection of methotrexate and oral gefitinib (an epidermal growth factor inhibitor) to women with ectopic pregnancies. The treatment was found to be safe and resolved ectopic pregnancies faster compared to single agent methotrexate. In 2012, the concept will be further evaluated, with a phase two study to follow.

The group is also working on treatments for severe pre-eclampsia, a complication of pregnancy that can be very risky for a baby and sometimes the mother. In this condition a toxin is released from the placenta during the pregnancy that can injure the mother's brain, liver and kidneys. There are currently no treatments to slow or reverse the disease process other than to deliver the baby. Often very difficult decisions need to be made to deliver the baby preterm in order to save the mother.

Attempts are being made to develop drugs that might be used to treat pre-eclampsia and the group is undertaking scientific studies to better understand the pathology of pre-eclampsia and finding new avenues to develop effective treatments.

Managing high risk pregnancies

The Department of Perinatal Medicine combines a high clinical load managing high risk pregnancies with a diverse range of research activities, including projects and studies in gestational weight gain, sleep disordered breathing, late preterm growth restriction, pre-eclampsia, intrauterine transfusion, fetoscopic laser placental coagulation for twin to twin transfusion, hepatitis

B positive status in pregnancy, gastroschisis and magnesium sulphate therapy for neuroprotection of the preterm fetus.

Treating women with gestational diabetes

Dr Martha Lappas' Research Group, which specialises in the study of women with gestational diabetes, is researching the short and long term biochemical implications of gestational diabetes. Funded by the Medical Research Foundation for Women and Babies, the overall aim of this project is to identify protein and lipid markers in a high risk population that may allow for the prediction and/or earlier diagnosis of Type 2 diabetes.

A project following on from this work poses the question: does the maternal environment contribute to fetal overgrowth in women with gestational diabetes? As diabetic women during pregnancy have increased circulating levels of nutrients, there is an increased supply of nutrients available for transfer to the fetus, which often results in larger babies. These babies have a higher prevalence of obesity, diabetes and cardiovascular disease later in life. Through these studies the research group aims to increase their understanding of the effect of diabetes through the transfer of nutrients from mother to baby, and new treatments may emerge that may slow the development of the paediatric obesity epidemic and the development of adult diseases.

Predicting preterm birth

Preterm birth (less than 37 weeks' gestation) is a significant problem occurring in about 10 per cent of all deliveries. Being born too early is the major cause of perinatal morbidity and mortality and accounts for the majority of neonatal deaths. Although survival rates for the extremely premature baby have increased, the associated morbidity for these survivors remains significant – where up to one quarter will have at least one major disability. Healthcare costs for the short and long term care of these infants are considerable.

Dr Harry Georgiou's Research Group is undertaking research to predict term and preterm birth. Currently there are no reliable tests for the prediction of preterm labour. An early detection test would represent a major advance and afford the opportunity to evaluate alternative treatment and clinical management strategies.

In 2011, PhD student Stella Liong incorporated new technologies to identify and validate a number of newly identified biomarkers associated with preterm birth and preterm rupture of fetal membranes. Stella is a recipient of a University of Melbourne postgraduate scholarship and presented her work at the Austin LifeSciences Research Week.

The group's research is also focused on the evaluation of numerous blood borne biomarkers that are thought to precede the onset of Type 2 diabetes. A comprehensive analysis of blood borne lipids and fatty acids will be undertaken in collaboration with colleagues at the Baker IDI Research Institute. The early detection of Type 2 diabetes would allow early intervention strategies to be implemented so that the common debilitating complications of diabetes (such as cardiovascular disease, kidney disease, blindness) can be prevented or delayed.

Knowledge sharing

Participating in conferences, seminars, meetings and forums is central to the sharing of knowledge among researchers and clinicians – and a prime opportunity to exchange ideas and challenge new hypotheses.

Here is a selection of events at which the Department of Obstetrics and Gynaecology was represented in 2011.

16th Annual Symposium of the Australasian Proteomics Society, Lorne, Victoria, Australia, February

- "Increased concentration of tissue inhibitor of Metalloproteinases-1 (TIMP-1) in cervico-vaginal fluid precedes spontaneous human labour." Liong S, Heng Y, Permezel M, Di Quinzio M, Georgiou H
- "Protein profiling severe intrauterine growth restriction in early pregnancy: Quantitative plasma proteomics using iTRAQ." Bailey M, Georgiou H, Ayhan M, Oliva K, Dellios N, Tong S, Rice G

Austin LifeSciences Research Week, Heidelberg, Victoria, Australia, October

- "Human preterm birth: Biomarker discovery using 2D-DIGE and mass spectrometry." Liong S, Di Quinzio M, Georgiou H

Society for Gynecologic Investigation 58th Annual Scientific Meeting, Miami, Florida, US, March

- "Low maternal serum MIC-1 and PAPP-A in asymptomatic women with a viable fetus at six to 10 weeks' gestation predicts subsequent miscarriage: A prospective cohort study." Tong S, Lappas M, Onwude J, Permezel M
- "Catechol-O-Methyl Transferase expression in severe early onset pre-eclampsia: Is there a role in the pathophysiology of pre-eclampsia?" Palmer K, Whitehead C, Saglam B, Tong S
- "Measuring hypoxia induced mRNA transcripts in maternal blood: A novel approach to monitor wellbeing of the severely growth restricted fetus." Whitehead C, Saglam B, Walker S, Mendis S, Tong S
- "Matrix Metalloproteinase-14 cleaves endoglin to produce soluble endoglin: A new therapeutic target in the treatment of severe pre-eclampsia." Palmer K, Kaitu'u-Lino T, Saglam B, Whitehead C, Lappas M, Tong S



RANZCOG Annual Scientific Meeting, Melbourne, Victoria, Australia

- “Progress report on facts, figures and feelings about weight in pregnancy: A randomised controlled trial.” McCarthy E, Shub A, Permezel M, Walker S
- “Audit and re-audit to improve influenza vaccination coverage in pregnancy in Melbourne 2010-11.” Pollock, McCarthy, Hay, McDonald, Nolan, Sommerville
- “External cephalic version: Safe, efficacious and does not increase the risk of intrapartum caesarean section.” McCarthy E, Shub A, Robinson M, Permezel M, McDowell R, Walker S
- “Intrapartum administration of methadone to a fetus with osteogenesis imperfecta type II: A therapeutic option for perinatal palliative care of the fetus in pain.” McCarthy E, Watkins A
- “Hysteroscopic retrieval of levonorgestrel containing intrauterine device at nine weeks’ pregnancy in a woman intending pregnancy continuation.” McCarthy, Jagasia, Maher, Shub
- “The impact of sleep disorders in pregnancy on fetal wellbeing.” Fung A, Esdale H, Wilson D, Barnes M, Howard M, Walker S (awarded best poster)
- “Do primigravidae and their carers have a realistic expectation of uncomplicated labour and delivery? A survey of primigravidae in late pregnancy, obstetric staff and medical students.” Williamson K, McCarthy E, Shub A (highly commended poster)
- “Feasibility of administering magnesium sulphate in a tertiary obstetric centre for prevention of cerebral palsy.” Kennedy A, Ow L, McCarthy E, Walker S (highly commended poster)
- “Obstetric risk management.” Permezel M
- “New horizons in ectopic pregnancy treatment.” Tong S
- “The Ella MacKnight Memorial Lecture (plenary lecture): Measuring free RNA in maternal blood to monitor hypoxic status of fetuses in utero.” Tong S
- “Multiple Pregnancy Symposium, Melbourne: Use of twins to unravel the contribution of nature vs nurture to major human diseases.” Tong S
- “CMV: To screen or not to screen.” Walker S





Mr Barry O'Callaghan AO, Chairman, Mercy Health Foundation and Professor Sue Walker

Career achievements

In 2011, the Director of Perinatal Medicine and Sheila Handbury Chair of Maternal Fetal Medicine, Professor Sue Walker was honoured with Catholic Health Australia's "Emerging Leader of the Year" award for her outstanding work as one of Australia's only maternal fetal medicine specialists, her contribution to research, her training of specialist obstetricians and gynaecologists, and her respect and compassion for the people she cares for. Her effectiveness as an educator was recognised for a third time with the "Best Clinical Teacher Award" from the graduating Austin Clinical School of 2011.

Professor Walker also completed her first year as the Sheila Handbury Chair of Maternal Fetal Medicine at Mercy Hospital for Women, a position which acts as a focus for research, teaching and training in maternal fetal medicine.

“Providing leadership in this vital area is critical to our mission,” she said. “It is important that we are a consulting resource for our metropolitan, our regional, our rural and remote neighbours. And it matters to the mothers and babies of the future that we are a leading site of teaching, training and research.”

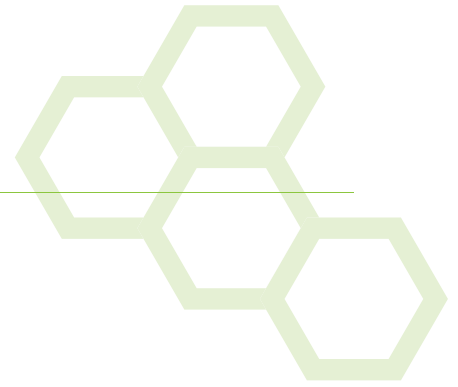
Postgraduate achievements

- Carson Sara, PhD: “Role of peroxisome proliferators activated receptors in the processes of human labour.” Supervised by Dr Martha Lappas, Associate Professor Greg Rice and Professor Michael Permezel.
- Colomiere Michelle, PhD. “Understanding the molecular mechanisms that regulate the onset of GDM.” Supervised by Dr Martha Lappas, Associate Professor Greg Rice and Professor Michael Permezel.

Scholarships

- Dr Kirsten Palmer: “The development of therapeutics for pre-eclampsia.” RANZCOG Scholarship for PhD studies at The University of Melbourne. Supervised by Associate Professor Stephen Tong.
- Dr Kirsten Palmer: “Therapeutic antibody development: A potential treatment for pre-eclampsia.” Arthur Wilson Memorial Scholarship. Supervised by Associate Professor Stephen Tong.





Fostering excellence in care

Midwifery Professorial Unit/Professional Development & Research Unit (Nursing and Midwifery) La Trobe University/Mercy Hospital for Women

The Midwifery Professorial Unit works alongside the Professional Development & Research Unit (Nursing/Midwifery) and aims to maximise the potential for developing quality research and education programs in midwifery, women's health and neonatal nursing. It also aims to create a critical mass of clinicians and academics to build an academic centre for high quality midwifery and nursing research that translates into clinical practice.

The unit facilitates multidisciplinary clinical research and higher degree education opportunities for all nurses and midwives, encouraging a commitment to lifelong learning and fostering the development of evidence based practice within an environment of patient focused care.



Our commitment to education programs in midwifery, women's health and neonatal nursing supports constant improvement of care for mothers and babies.



Key activity

During the year many staff members engaged in a range of education and research projects, some of which were undertaken as part of higher degree studies.

“We continue to increase our profile through presentations at national and international conferences,” said Professor Susan McDonald, Professor of Midwifery.

The steady increase in engagement with activities facilitated through the department has led to a move to a larger space to accommodate the many research, education and professional development projects within the organisation. This will create an environment that enables greater staff engagement across midwifery, nursing, medical and allied health.

Work in progress

- “Implementation and evaluation of a student midwifery fellowship model of employment.” McDonald S, Keane J, Pollock W, Kyritsis V (funded by the Victorian Department of Health)
- “Need for, and evaluation of, a high acuity maternity modular education program for critical care nurses and midwives caring for critically ill pregnant and postpartum women.” Pollock W, McDonald S, Hay S (funded by the Royal College of Nursing Australia)
- “Postnatal adaptation following ICU admission.” Pollock W, Akers D, Jones L, Rose L (funded by the Australian College of Critical Care Nurses)
- “Management and support of women presenting with miscarriage.” McCarthy M, McDonald S, Pollock W (funded through Mercy Health Foundation)
- “Mechanical ventilation in pregnant women with H1N1 influenza.” Pollock W, Seppelt I, Webb S, Howe B, Morrison S, Bellomo R, Davies A, Sullivan E, Gerdzt M (funded by the Helen Macpherson Smith Trust)
- “Australasian Maternity Outcomes Surveillance System.” Chief Investigator Professor E Sullivan (UNSW), Associate Investigator W Pollock (funded by the NHMRC Project Grant)
- “Evaluation of the implementation of a maternal observation and response chart.” Simmons S, Turkington C, Pollock W
- “Development of a severity of pre-eclampsia score.” Pollock W, Shub A, Dennis A, Konig K, McDonald S, Bellomo R, Harley N, Lapinsky S
- “Pattern and rate of blood product transfusion in major obstetric haemorrhage.” Pollock W, McDonald S, Simmons S, Phillips L
- “Uptake of influenza vaccination in pregnancy.” Pollock W, McCarthy E, Hay S, Nolan T, McDonald S
- “A survey of inotrope and vasopressor line change practices in Australian and New Zealand neonatal intensive care units.” Jeston S, Pollock W, Burnett M, McDonald S
- “The use of human milk fortifiers in preterm infants: A retrospective audit and online survey.” Webster C, Burnett M, Opie G, McDonald S
- “Evaluation of an education program to increase staff knowledge and confidence levels in the provision of prenatal genetic testing information to women.” Harrison K, McDonald S

Knowledge sharing

**International Confederation of Midwives
29th Triennial Congress, Durban,
South Africa, June**

- “Investing in our future: Employment of Bachelor of Nursing/Bachelor of Midwifery 4th year students as Division 2 nurses in Victoria, Australia.” Keane J, McDonald S, Bowditch T, Moors R, Pollock W



Perinatal Society of Australia and New Zealand 15th Annual Congress, Hobart, Australia, April

- “Uptake of pandemic H1N1 vaccination in pregnancy – a clinical audit.” Pollock W, Hay S, McCarthy E, Nolan T, McDonald S
- “Women’s experiences of pre-eclampsia: Survey of members and their confidantes.” Australian Action on Pre-eclampsia. East C, Conway K, Pollock W, Brennecke S on behalf of Australian Action on Pre-eclampsia.
- “Improving triage of pregnant women in emergency department.” McCarthy M, McDonald S, Pollock W

Invited speakers

King Edward Memorial Hospital, Western Australia, Grand Round

- “Cardiac disease in pregnancy.” Pollock W

International Confederation of Midwives Education Standing Committee, Accra, Ghana

- Professor Susan McDonald spent two weeks as a member of a small consultancy group to work with representatives from International Confederation of Midwives, the United Nations Population Fund, midwifery advisors from 12 African countries and midwifery technical advisors to plan programs which would strengthen midwifery education, skills and services in low resource and high maternal mortality countries

Obstetric emergency refresher training workshops with midwives in Timor Leste, November, funded by the International Rotary Foundation

- Professor Susan McDonald participated in the first of five planned workshops

Postgraduate achievements

- Ms Sally Jeston: Master of Nursing.
Thesis title: “A survey of inotrope and vasopressor line change practices in Australian and New Zealand neonatal intensive care units.”
Supervisors: W Pollock, S McDonald.
- Ms Chelsea Webster: Master of Nursing.
Thesis title: “The use of human milk fortifiers in preterm infants: A retrospective audit and online survey.” Supervisors: M Burnett, S McDonald.
- Ms Kym Harrison: Master of Midwifery.
Project title: “Evaluation of an education program to increase staff knowledge and confidence levels in the provision of prenatal genetic testing information to women.”
Supervisor: S McDonald.
- Ms Marina Keenan: Master of Health Administration (coursework)
- Ms Andrea Williamson: Master of Public Health (coursework)

Professional achievements

The unit continues to support recipients of the Lyn Tuttle Scholarship, which allows a nurse or midwife to work on a research project for the equivalent of one day per week over 12 months.

The 2010-11 recipients were Ms Melanie Jarvis for the project “The accuracy of the NO touch thermometer for measuring temperature in preterm neonates nursed in incubators” and Ms Anna Seaborn for the project “Changing practice: Postnatal care at Mercy Hospital for Women: Leading the way”.

The 2011-12 recipient is Ms Zoe Lock who will focus her work on the relationship between mode of birth and the time space between ARM and commencing syntocinon.



Anaesthesia and pain management

Department of Anaesthesia, Mercy Hospital for Women

The anaesthesia service at Mercy Hospital for Women continued to provide a high level of acute care for obstetrics, gynaecological oncology and specialist gynaecology patients in the areas of anaesthesia, pain management and resuscitation of critically ill women.

The major work presented was an original study undertaken in collaboration with the Women's and Children's Hospital in Adelaide documenting the amount of time it takes to receive epidural pain relief in labour and the reasons for any delays. This study was conducted by Clinical Associate Professor Scott Simmons, Director of Anaesthesia at Mercy Hospital for Women and presented at the annual scientific meeting of ANZCA (Australian and New Zealand College of Anaesthetists). It received prominent coverage in the local media and has been submitted for publication.

Clinical Associate Professor Simmons also presented a paper at the 32nd Annual ANZCA/ASA Combined Continuing Medical Education Meeting in July 2011 which focused on combined spinal-epidural analgesia for childbirth, concluding it is one of an increasing range of options available to anaesthetists to deal with more complicated patients and complex situations. This work will be further highlighted by a Cochrane Systematic Review to be published in 2012.

Other project work includes the assessment of a weight based dosing schedule of the anticoagulant enoxaparin on anti-Xa activity, which is happening in collaboration with pathology services at Austin Health. The reliability of a new device for point-of-care testing of haemoglobin measurement non invasively is also being assessed. Important clinical audit studies continue into the use of general anaesthesia for caesarean sections and the anaesthetic implications of placenta praevia.



The Department of Anaesthesia provides anaesthesia, analgesia and consultative services for obstetric and gynaecology patients.

Key activity

Work in progress

- “Anaesthesia for placenta praevia and accreta at Mercy Hospital for Women. A retrospective analysis of five years experience.” (ongoing) Cheung A, Supple T, Simmons S
- “General anaesthesia for caesarean section at Mercy Hospital for Women – a seven year audit.” (ongoing) Letson I, Geertsema J, Simmons S
- “The waiting hour: Obstetric regional analgesia takes longer to happen than we think.” (submitted for publication) Barker H, Hiscock R, Simmons S, Cyna A
- “Mean peak antiXa plasma levels when using a weight based enoxaparin thromboprophylaxis regime following caesarean section.” (ongoing) Casey E, Hiscock R, Newell P, Walker S, Simmons S

Knowledge sharing

ANZCA Annual Scientific Meeting, Hong Kong, May

- “The waiting hour: Obstetric regional analgesia takes longer to happen than we think.” (poster presentation) Barker H, Hiscock R, Simmons S, Cyna A

32nd Annual ANZCA/ASA Combined CME Meeting, Melbourne, Australia, July

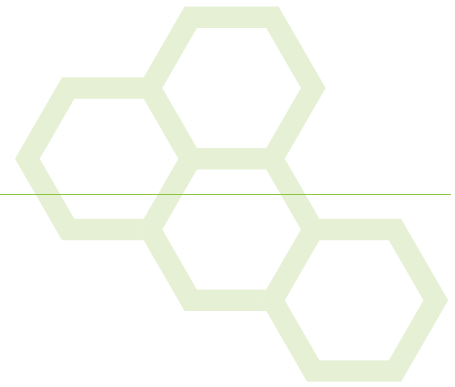
- “CSE in obstetrics: What is the evidence?” (oral presentation) Simmons S

In collaboration

- Joint study with the Women’s and Children’s Hospital in Adelaide: Time from maternal request for epidural to pain relief in labour
- Collaborative study with Austin Health’s Department of Pathology: Anti-Xa activity study



Supporting women mentally and physically



Perinatal Mental Health, Mercy Hospital for Women

The Department of Perinatal Mental Health at Mercy Hospital for Women provides a comprehensive consultation liaison service to women receiving antenatal care and delivery at the hospital and up to three years after they have had their baby.

The department is committed to research that enables the evaluation and further development of improved treatment options, pharmacological and psychological, for women before and after they have given birth.



Dr Megan Galbally, Head of Unit, Perinatal Mental Health and Consultant Psychiatrist, Mercy Hospital for Women.



Key activity

Research focus

In 2011, Dr Megan Galbally, Head of Unit, Perinatal Mental Health and Consultant Psychiatrist was successful in obtaining a **beyondblue** National Priority Driven Research Grant for Perinatal Mental Health for \$216,587 for the Mercy Health Pregnancy Emotional Wellbeing Study.

This study is the first in the world to comprehensively examine risk and protective factors for perinatal depression across psychological, hormonal, genetic and epigenetic factors and across multiple time points.

First time mothers will be recruited at Mercy Hospital for Women in early pregnancy including:

- Women with depression treated with antidepressants
- Women with depression not treated with antidepressants
- Women without depression

The study will have four waves of data collection across pregnancy and the postpartum. These will be in early pregnancy, late pregnancy, at birth and at three months postpartum.

As the risks of untreated maternal depression become clear, antidepressant treatment in pregnancy is becoming more common. Knowledge of the risks this treatment option potentially poses for the unborn child is still very limited. This study will examine the maternal, neonatal and infant outcomes following antidepressant exposure in pregnancy and aims to fill these knowledge gaps.

Dr Megan Galbally said that the project is imperative “to better understand the risk and protective factors for women (and the effects on their children) with depression in the perinatal period”.

Work in progress

- Victorian Psychotropic Registry (VPR)
- “Management and outcomes in an antenatal clinic for women with bipolar affective disorder and schizophrenia”
- “Borderline personality disorder across the perinatal period: Developing guidelines for care”
- “The role of neuropeptides in the regulation of maternal mood and bonding”

Knowledge sharing

Perinatal Psychiatry in the 21st Century: The Legacy of Channi Kumar, May

- “Management of antipsychotic and mood stabiliser medication in pregnancy: Recommendations for antenatal care.” (poster) Galbally M, Snellen M, Walker S, Permezel M

Human Behavior and Evolution Conference, Montpellier, France, June

- “An evolutionary mismatch in infant development: The contradiction between western practices of breast feeding and infant sleep patterns.” (paper) Lewis A, Galbally M

In collaboration

- Dr Salvatore Gentile, Department of Mental Health, ASL Salerno, Italy: Co-author of the paper “Child developmental outcomes and antidepressant exposure in utero: Implications for clinical practice”
- Associate Professor Andrew Lewis, Deakin University, co-investigator on the **beyondblue** grant and co-author of papers and scientific articles



Holding the baby and the mother

Mental health services for women, babies and families are available through a number of providers in the western region of Melbourne. Included in this network is Mother Baby Services, which consists of an inpatient unit based at Werribee Mercy Hospital caring for mothers who are experiencing mental ill health or difficulty bonding with their babies and an outpatient consultation service.

“This is a small service that plays a big role in this catchment area,” said Dr Rebecca Hill, Consultant Psychiatrist at Mother Baby Services. “We have six beds and six cots, and clinically serve about 70 women and babies each year who are referred to us by GPs, maternal and child health nurses, midwives, psychiatry teams at obstetric hospitals and others.”

Staff at the unit invest a great deal of effort in communicating with general health and mental health services, offering education sessions and developing models of care that can provide their specialist expertise to the greatest number of women possible.

To this end Dr Hill has been conducting research into the way referrals to the unit are managed across the region. “One part of this research was to look at the referrals we received in 2010, which totalled over 340, so we can make better use of our resources for outpatient consultation and liaison,” she said. “We’d had very good anecdotal feedback about our perinatal mental health plans and wanted to examine that and further understand what the outcomes were for women who received that intervention from us.”

Dr Hill said the perinatal mental health plan provides detailed advice on how a woman’s mental health should be managed during her pregnancy and around the time of delivery. “Our aim is to maximise prevention where possible, identify issues early and plan treatment where we can.”

During 2011 Dr Hill and members of the consulting team reviewed 54 of these planning episodes of care and found that the group selected were at risk of obstetric complications resulting in much higher rates of caesarean delivery and babies

being admitted to special care nurseries.

“It brought home to us that these women warrant a lot of intervention, so we’re putting that into our thinking about how we advocate for them and their babies. In the sample there was about a 30 per cent rate of relapse of mental illness in the postnatal period so there is a high need for continued care.”

Through the research they also identified that general obstetric teams need support to understand the mother’s and the baby’s emotional needs and that general mental health teams need support to keep the baby in mind and understand the obstetric interventions a woman may require.

While this research was being conducted Dr Hill made a presentation titled “Holding the Baby and the Mother” to perinatal mental healthcare practitioners in Sunraysia. “It was an opportunity for Yvette Mackley, our Infant Mental Health Clinician and I to meet some of our partners in care, deliver some education and make sure they are aware of our referral pathways,” she said.

The presentation included an overview of perinatal mental health and the type of rapid action that may need to occur to support a woman with emotional care needs. “I always include some information on postnatal psychosis, which is a very severe maternal mental illness affecting about one in 1,000 women.”

Dr Hill is passionate about supporting women and babies and has a particular interest in infant mental health and the importance of the bond between a mother and her baby. Her team continues with research into the referral process.



Dr Rebecca Hill
Consultant Psychiatrist



Urinary function and dysfunction

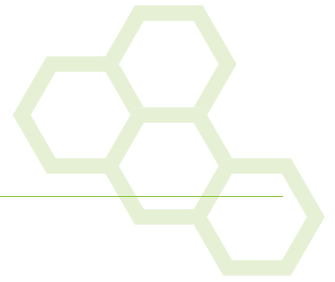
Department of Urogynaecology, Mercy Hospital for Women

The department has had a productive year with research projects, publications and national and international presentations.

It also ran a very successful symposium with live operating, lectures and debates. Over 200 doctors from Australia and New Zealand attended this event. International guests were Professor Bob Shull, an internationally renowned vaginal surgeon, and Professor Don Wilson from New Zealand, a specialist in urogynaecology including urodynamic investigation, medical and surgical management of incontinence and prolapse.



Ms Elizabeth Thomas, Clinical Nurse Consultant, Department of Urogynaecology.



Key activity

Professional achievements

- Dr Joe Lee successfully completed his subspeciality training in urogynaecology
- Dr Yik Lim was appointed Secretary of The Australasian Urogynaecology Society and Chairman of The Australasian Urogynaecology Society Education Subcommittee
- Professor Peter Dwyer continued as Editor-in-Chief of the *International Urogynecology Journal*

Work in progress

- “Hysterectomy or uphold uterine conservation in women with apical prolapse – a randomised controlled trial (HUUT).”
- “MiniArc and Monarc suburethral sling in women with stress urinary incontinence – a randomised controlled trial.”
- “Evaluation of prolapse outcomes using ICIQ VS: The use of the ICIQ Vaginal Symptoms Questionnaire (ICIQ VS) to assess the effect of management of vaginal prolapse and urinary incontinence on vaginal symptoms and female sexual function.”
- “Evaluation of mesh related complications from 2005.”

Forums and presentations

International Urogynecological Association Annual Scientific Meeting, Lisbon, Portugal

- “Chronic pelvic pain and hypertonic pelvic floor: Multifactorial disorders of a common feature?” “Chronic pelvic pain in women.” (workshop) Dwyer P

International Urogynecological Association Annual Scientific Meeting, Lisbon, Portugal

- “Surgery for pelvic floor injuries due to delivery.” (workshop) Dwyer P

Evidenced Based Medicine in Urogynaecology, Queenstown, New Zealand

- “Occult stress incontinence – does it exist and how do we treat it?” Dwyer P

Royal Australian and New Zealand College of Obstetricians and Gynaecologists Annual Scientific Meeting, Melbourne, Australia

- “Urinary tract injury in gynaecological surgery.” Dwyer P

International Urogynecological Association Annual Scientific Meeting, Lisbon, Portugal

- “A medium term study on DMSO therapy in women with interstitial cystitis.” Lim Y, Dwyer P, Thomas E, Murray C, Muller R

The Australasian Urogynaecology Society Annual Meeting, Sydney, Australia

- “The diagnosis and management of intrinsic sphincter deficiency; stress urinary incontinence.” Dwyer P



Women specific cancer research

Department of Gynaecological Oncology, Mercy Hospital for Women

The Department of Gynaecological Oncology has an increasing demand for clinical service provision but continues to play a very active role in research and education. Many of the research

projects and publications are part of national or international collaborative groups and members of the department are sought after speakers for local and national meetings.



Associate Professor Peter Grant, Head of Department of Gynaecological Oncology.

Collaborative effort

The department is primarily involved in the surgical management of gynaecological cancers, which draws on the skills of a multidisciplinary team.

Some of their works included:

- Vulvar Cancer Structured Reporting Guidelines. Royal Australian College of Pathologists. "The development of uniform reporting guidelines for vulvar cancer in Australia." Scurry J, Stewart C, Grant P, Hacker N
- Endometrial Cancer Structured Reporting Protocol. Royal Australian College of Pathologists. "The development of uniform reporting guidelines for endometrial cancer in Australia." Scurry J, Stewart C, Grant P, Hacker N, Allen D, Ellis D, Narayan K, Ireland-Jenkin K, Mileskin L, Newman M, Mulvany N, Russell P
- North Eastern Melbourne Integrated Cancer Service, Gynaecological Oncology Group. Grant P, Allen D, Hyde S
- National Breast and Ovarian Cancer Centre (NBOCC), "Ovarian cancer guidelines high risk working group." Chair: Grant P
- Cancer Council Victoria Medical Scientific and Research Committee: Grant P
- NBOCC Clinical Expert Advisory Panel: Grant P
- National Gynaecological Cancer Centre Advisory Group: Grant P
- Medical & Scientific Advisory Committee. Expert advisory panel member: Grant P
- NEMICS Governance Committee Member. Immediate past chairman: Allen D
- Australian Society of Colposcopy and Cervical Pathology. President: Allen D
- Safety Monitoring Committee (Cervical Cancer), DoHA. Member: Allen D
- Victorian Surgical Consultative Council, Department of Health, Member. Ministerial appointment, representative for gynaecology in Victoria: Allen D
- Surgical Outcome Information Initiative Committee, Department of Health. Member: Allen D
- CGO Examination Committee, RANZCOG: Allen D
- CGO Examination Committee, RANZCOG: Hyde S

Knowledge sharing

Invited speakers

Professor Peter Grant, Gynaecological Oncologist:

- ANZGOG Broadbeach, 25-26 February. "Overview of management of gynaecological cancer"
- DRANZCOG Course, 10 February. "Update in gynaecological oncology"
- Cancer Institute of NSW. Gynaecological Oncology Health Professionals Education Day – Sydney, September. "Improving the outcomes for women with cervical cancer: From HPV to psychosocial care"
- BREACAN Patient and Family Information Meeting, May. "Diagnosis and treatment of gynaecological cancer"
- ASGO Annual Scientific Meeting, Queenstown, New Zealand, July. "Recurrent ovarian cancer: Palliation and symptom control"

Associate Professor David Allen, Gynaecological Oncologist:

- ASCCP Scientific Meeting, Hobart, Australia, 5-8 May. Organiser.
- ASCCP Colposcopy Course, Gold Coast, Australia, 6-7 August. Organiser.
- 27th International Papillomavirus Conference and Clinical Workshop, Berlin, Germany, 17-22 September.



Poster presentations

International Papilloma Virus Conference, Berlin, Germany, September

- “HPV 16 variants in young Australian women with cervical cancer.”
- “Morphology, survival, HPV genotypes in young women with cervical cancer.” Jayasinghe Y, Sasongko V, Moore E, Leong T, Stevens M, Tabrizi S, Grover S, Garland S for the EOCC Study Group
- “Sexual, reproductive and lifestyle factors and risk of early onset cancer/precancer.” Jayasinghe Y, Sasongko V, Moore E, Leong T, Stevens M, Tabrizi S, Grover S, Garland S for the EOCC Study Group
- “Sexual abuse and risk for cervical cancer or precancer.” Jayasinghe Y, Sasongko V, Moore E, Tabrizi S, Grover S, Garland S for the EOCC Study Group

17th International Meeting of the European Society of Gynaecological Oncology, Milan, Italy, September

- “Phase II study of CVAC. A novel autologous vaccine against MUC1: Ca125 responses in patients with advanced epithelial ovarian cancer.” Mitchell P, Quinn M, Grant P, Allen D, Jobling T, White S, Zhao A, Karanikas V, Loveland B

Projects in progress or on trial

- “Establishment of a tissue bank to collect, store and distribute data, blood and tissue for ethically approved research projects.” Grant P
- “Multimedia laser treatment consent module. Trial to assess patient perceptions of pre treatment information provided in a conventional vs multimedia format.” Grant P, Allen D, Murray B, Freyne A
- “The oncogenic risk of human papillomavirus (HPV) in children and adolescents: Risk factors for early onset cervical carcinoma and high grade dysplasia.” Garland S, Grant P, Grover S, Jayasinghe Y, Pyman J, Tabrizi S, Quinn M (EOCC Group)
- “Ovarian cancer patterns of care survey in Australia. Australian ovarian cancer study (AOCS) project.” Webb P, Grant P, Friedlander M, Obermaier A (NHMRC funded study)
- “Multinational Phase II randomised study evaluating a PARP inhibitor for recurrent ovarian cancer.” Milishkin L
- “MORAb-003: Multinational randomised study using Paclitaxel +/-MORAb (farletuzimab) in refractory relapsed ovarian cancer.” Milishkin L

Lymphoedema specialists

Mercy Health Lymphoedema Services, East Melbourne and Mercy Hospital for Women

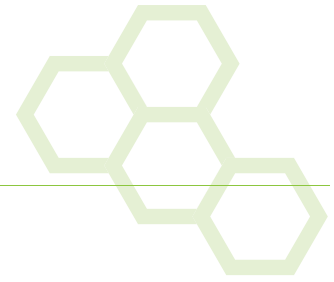
Mercy Health Lymphoedema Services provides outpatient services to men, women and children who are at risk of lymphoedema or are diagnosed with primary or secondary lymphoedema.

A multidisciplinary team consisting of medical practitioners, lymphoedema therapists, social workers, dietitians and allied health assistants provide services to people across Victoria.

The service offers assessment, education, treatment and management for patients, including a collaborative Paediatric Clinic at the Royal Children's Hospital. It also administers the statewide Lymphoedema Compression Garment Program, a financial assistance program funded by the Victorian Department of Human Services for people with lymphoedema, and is committed to providing education and information to the public and other health professionals.



Education about lymphoedema and its treatment can help people adjust to changes in their physical function and wellbeing.



Key activity

Work in progress

- “Mentoring for lymphoedema therapists in the NEMICS Region.” Purbrick J. An interim paper was presented at the Integrated Cancer Services Conference in July 2011.
- “Young women’s experiences of lymphoedema.” Sanderson P
- “An investigation into the impact of activities and occupations on the health and wellbeing of people with ongoing health conditions.” Lentin P

Knowledge sharing

Australian Breast Cancer Nurses Conference, Melbourne, Australia, February

- “Breast oedema: An emerging problem.” (paper) Grabsch S

Integrated Cancer Services Supportive Care Conference, Melbourne, Australia, July

- “Mentoring for Lymphoedema Therapists in NEMICS.” (paper) Purbrick J

23rd International Congress of Lymphology, Malmo, Sweden, September

- “The challenge of paediatric lymphoedema and vascular anomalies.” (paper) Philips J

23rd International Congress of Lymphology, Malmo, Sweden, September

- “Young women’s experiences of lymphoedema.” (paper) Sanderson P

In collaboration

A number of staff at Mercy Health Lymphoedema Services hold key positions in professional associations.

These include:

- Australasian Lymphology Association
President: Penelope Sanderson
Council member: Jane Phillips
Conference Organising committee: Gillian Buckley
- Lymphoedema Practitioners Education Group of Victoria
President: Judith Purbrick
Committee members: Gillian Buckley, Jane Phillips
- Lymphoedema Association of Victoria
Committee member: Joan Smyth
- BreaCan
Advisory committee member: Penelope Sanderson

Treating gynaecological disease

Department of Endosurgery, Mercy Hospital for Women

The Department of Endosurgery offers minimally invasive techniques to surgically treat gynaecological disease. The department has a special interest in the treatment of severe endometriosis and works closely with colo-rectal surgeons from Austin Health and St Vincent's Hospital.

Members of the department are actively involved in clinical research, publications and presentations at national and international meetings.

This year Peter Maher was appointed a Clinical Professor of The University of Melbourne, Department of Endosurgery at Mercy Hospital for Women. He has been a pioneer in gynaecological minimal invasive surgery and co-performed the first laparoscopic assisted hysterectomy with colleague David Hill in 1991.

Key activity

Work in progress

- "The use of timed MRI during the menstrual cycle in patients with severe rectovaginal endometriosis in determining rectal wall involvement." (funded by Medical Research Foundation for Women and Babies)
- "The use of heated humidified CO₂ in laparoscopy: Effect on post operative pain and recovery times in patients undergoing laparoscopic surgery longer than 90 minutes. A randomised controlled trial."
- "Applying education theory to the informed consent process for hysterectomy using a web based multimedia application." (funded by the Medical Research Foundation for Women and Babies)
- "Nerve cells in endometrial tissue as a predictor for the diagnosis of endometriosis." (funded by the Medical Research Foundation for Women and Babies)



Endoscopic treatment of all major gynaecological diseases is available through the department.



Caring for babies and young children

Department of Paediatrics, Mercy Hospital for Women

The key research priorities for the Department of Paediatrics are clinically based research, centring on intensive care management of circulation,

non invasive respiratory support, infection control, prevention of chronic lung disease and long term neurodevelopmental follow up.





Key activity

Forums and presentations

Royal Australasian College of Physicians Annual Scientific Meeting

- “Management of Neonatal Infection.” (invited lecture) Watkins A

Australian Association for Bioethics and Health Law Conference, Gold Coast, Australia

- “Perinatal futility.” (workshop) Thiele P, Wilkinson D, Watkins A, DeCrespigny L
- “No room at the inn: Ethics of neonatal bed allocation.” Watkins A

Annual Meeting Perinatal Society of Australia and New Zealand, Hobart, Australia

- “Gentamicin levels with extended interval dosing in preterm and term neonates.” (poster) Barfield C, Miller A, Lim A, Spalding G, Saker S, König K
- “The relationship between N-terminal-pro-B-type natriuretic peptide and echocardiographic and laboratory markers of circulatory status in preterm infants.” (poster) König K, Drew S, Walsh G, Burke E, Barfield C, Watkins A, Collins C
- “The relationship between B-type natriuretic peptide and echocardiographic and laboratory markers of circulatory status in preterm infants.” (poster) König K, Drew S, Walsh G, Burke E, Barfield C, Watkins A, Collins C

- “Comparison of invasive and non invasive blood pressure monitoring in preterm infants.” König K, Casalaz D
- “Vitamin D levels in at risk infants and the efficacy of current supplementation regimes.” (oral presentation) Jackson H, König K, Barfield C

Annual Meeting Society for Neonatology and Pediatric Intensive Care, Mannheim, Germany

- “The relationship between B-type natriuretic peptide and echocardiographic and laboratory markers of circulatory status in preterm infants.” (poster) König K, Drew S, Walsh G, Burke E, Barfield C, Watkins A, Collins C



In collaboration

- “Australian placental transfusion study. Randomised controlled trial of delayed cord clamping in management of VLBW infants.” Walker S, Watkins A, Tarnow-Mordi W, et al
- “Severe neonatal hyperbilirubinaemia neurodevelopmental follow up study.” Evans N, Beeby P, Haslam R, Kent A, Watkins A, et al
- “Knowledge and attitudes of obstetricians in UK and Australia concerning Trisomy 18.” Watkins A, Wilkinson D, DeCrespigny L, Thiele P
- “CAP 11 – Efficacy and safety of methylxanthine in very low birth weight infants: The caffeine for apnoea of prematurity (CAP) trial.” Opie G, Schmidt B, et al
Extended follow up to age 11-12 years (funded by Canadian Institutes of Health Research)
- “CAP-Sleep: Long term effects on sleep of methylxanthine therapy for apnoea of prematurity” (collaborative research with The Children’s Hospital of Philadelphia) Opie G, Schmidt B, et al
- “Proprems trial: The use of probiotics to reduce the incidence of sepsis in premature infants” Opie G and Proprems Group
- “Proprems neuro: Investigating the effects of probiotics on the neurodevelopmental outcomes of preterm infants” Opie G and Proprems Group

Non research project grants

- “Development of teaching package on neonatal death management.” (Department of Health, Victoria) Watkins A, Zion D
- “Interdisciplinary training in technical skills and team work for managing medical emergencies in newborn babies.” (Department of Health, Victoria) Barfield C

Invited speakers

4th Indonesian PICU NICU, October

- Lecture: Phil Henschke

Wuhan Women’s and Children’s Hospital. Andrew Watkins – Teaching visit at the invitation of Australia-China Program RACS, October

- Lecture: Non invasive respiratory support (1)
- Lecture: Non invasive respiratory support (2)
- Lecture: Assisted ventilation of the neonate (Pt 1); Assisted ventilation of the neonate (Pt 2)
- Lecture: Assessment and management of hypoxic-ischaemic encephalopathy
assessment and management of infection in the neonate



The Department of Paediatrics focuses on clinically based research and long term neurodevelopmental follow up.

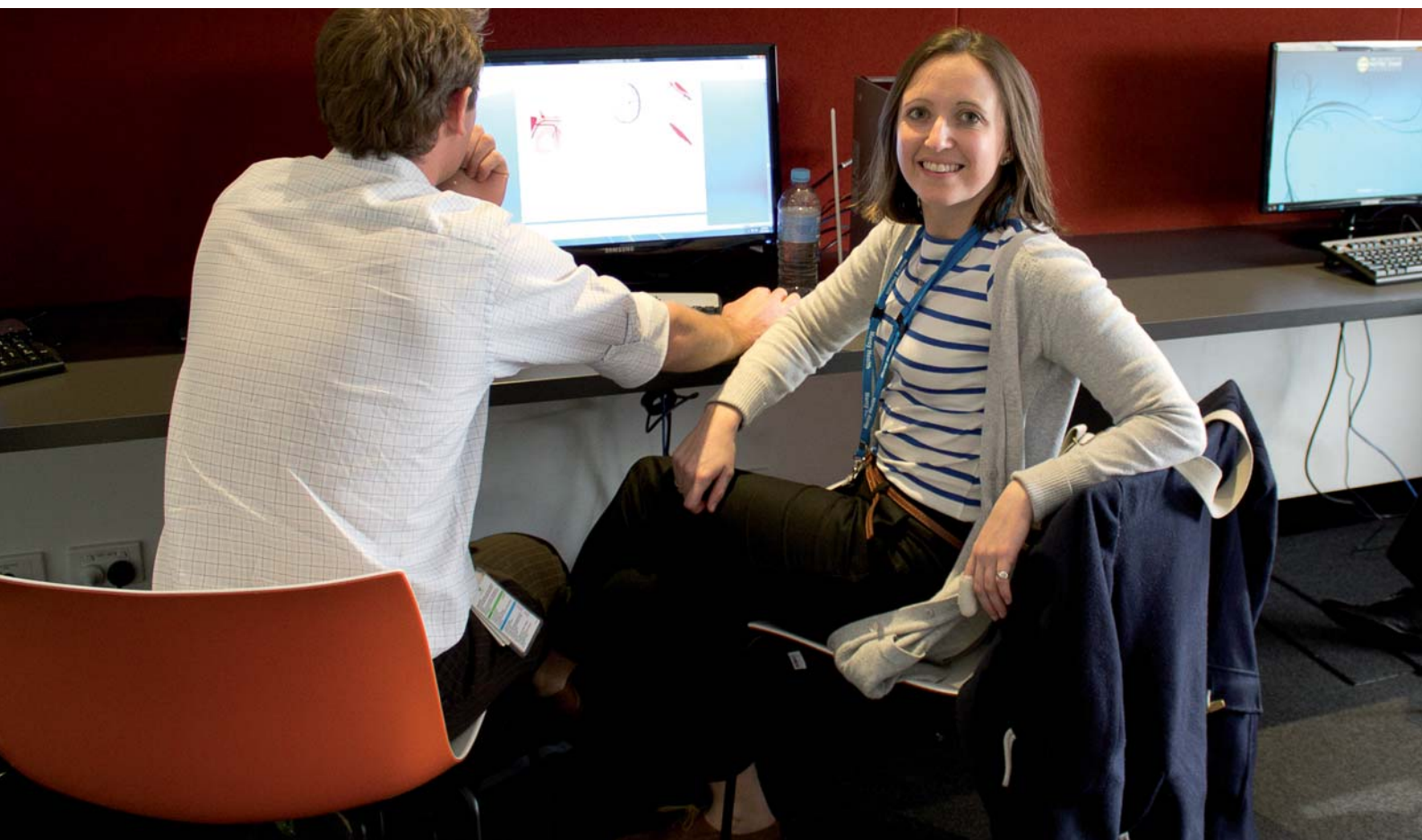


New training opportunities for south west Melbourne

Productive partnerships

In recent years we have focused heavily on improving Werribee Mercy Hospital's teaching, training and research capacity, particularly in the areas of community, hospital, mental health and palliative care services in the south west region of Melbourne. Through major initiatives with Victoria University, Australian Catholic University, The University of Notre Dame, and the state government, we have been able to create a substantial education and training precinct at Werribee Mercy Hospital.

In March 2012 we commenced our Australian Catholic University and Mercy Clinical School for Nursing based at the hospital. Nursing students will receive their clinical and theoretical training in a new multidisciplinary learning centre, which will provide much needed training and student accommodation facilities to support student placements. This project was possible due to funding made available by Health Workforce Australia.



Third year medical students prepare for a class presentation.

In addition to the Australian Catholic University and Mercy Clinical School for Nursing, The University of Notre Dame Australia, Melbourne Clinical School at Werribee Mercy Hospital was officially opened in February 2012. This \$11M project provides a state-of-the-art learning centre in which medical students and other health professionals can receive training. A donation from the Werribee District Hospital Charitable Foundation contributed significantly to this facility.

“As an organisation we value learning and these projects will enable us to maintain best practice and high standards of patient care,” said Kate McCormack, Executive Director People, Learning & Culture.

“We are committed to the continuous development of our people, and the key to achieving this is to work in a collaborative model across all our clinical education units, research, Mercy Health Training Institute and the broader organisation.

“Through our training programs we will be better placed to address the planned growth of the hospital and increased pace of change within healthcare. These new teaching facilities will further provide resources and learning opportunities for current and future health professionals who understand our values and approach to providing care.”



Research drives clinical excellence



Working collaboratively is a cornerstone of scientific endeavour, but working clinically, strategically and academically to increase an organisation's capacity for research and knowledge exchange requires a very particular skill set.

Professor E Haydn Walters, Director of Research and Scholarship, UNDA Melbourne Clinical School is one such academic who has devoted his career to building capacity from the ground up so that research knowledge can be translated into evidence based, systematic clinical practice.

In 2010, Professor Walters was engaged by The University of Notre Dame Australia to develop and deliver the first two year clinical program of the graduate entry course for third and fourth year medical students at its new Melbourne Clinical School based at Werribee Mercy Hospital.

After successfully delivering the fourth year training program, with the first group of students graduating in December 2011, Professor Walters' role is evolving into one that is more consultative with an emphasis on developing the Clinical School's research agenda.

"Although it may be something of a cliché, I firmly believe that in a teaching hospital culture, research drives clinical excellence," said Professor Walters. "In fact research can, and needs to be, generalised to the whole health system."

Professor Walters has a particular commitment to teamwork, quality improvement, evidence based practice and the personal and professional development of colleagues. He works closely with researchers, medical professionals, hospital management, universities and government bodies and has developed a critical understanding of these diverse groups.

"I look forward to the way we can develop the research capability at the Clinical School and work with local researchers and health service providers," he said.

He added that he is dedicated to change management, clinical and academic leadership, strategic planning, and team building and delivery. "All of these activities are necessary to create sound programs that deliver useful outcomes in healthcare."

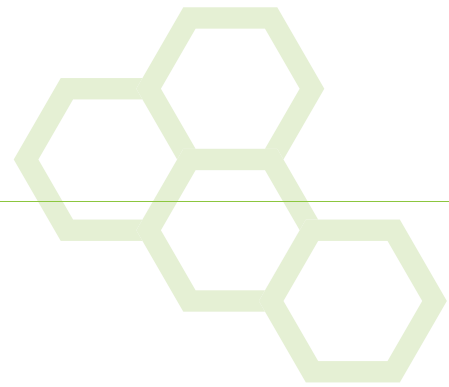
Professor Walters has an impressive track record in delivering major new initiatives, including his role as Foundation Professor of Respiratory Medicine at Monash University and Director of the Department of Respiratory Medicine and Head of Clinical Business Unit: Respiratory, Allergy and Clinical Immunology at The Alfred where he led the development of what became the largest, most complex and research productive respiratory unit in Australasia.

He says that of all these endeavours his personal research, linked to a broader strategic role in clinical and translational research development at teaching hospitals, has given him the greatest satisfaction.



Professor E Haydn Walters
Director of Research and Scholarship,
Melbourne Clinical School,
UNDA Medical School,
The University of Notre Dame Australia

Providing care in appropriate settings



Mercy Mental Health

Mercy Mental Health treats adults in the cities of Wyndham, Hobsons Bay and Maribyrnong in south west Melbourne who have severe and complex mental illnesses. Services are provided through acute, postacute, residential and community based care and some specialist services are made available to mothers throughout western Victoria.

In mid-2011 Mercy Mental Health restructured its community teams so they can be more flexible in responding to clients' needs and provide greater continuity of care in their recovery process. These community teams are geographically focused and include mental health professionals with a mix of skills and experience.



Associate Professor Dean Stevenson, Director of Clinical Services, Mercy Mental Health.



Key activity

Research focus

The primary focus of Mercy Mental Health's Research Unit is psychosocial research; however, 2011 saw an increase in the number of evaluation activities across the service.

These included:

- A community intake meeting review of a sample of accepted and non accepted referrals from 2010 was performed by the Research Unit & Quality Unit at Werribee Mercy Hospital
- Analysis of data collected by the Consultation and Partnerships team from early 2007 to mid-2011 via pre assessment packs and referrer feedback, which culminated in a comprehensive report
- Assisting the Mother Baby Unit at Werribee Mercy Hospital with analysis of 2010 referral data as well as data collection and analysis of data from birth plans developed for clients in 2010 and 2011. The Research Unit is currently assisting with data capture regarding 2011 referrals.
- Assisting the Clozapine Coordinator with an initial evaluation of the GP/Clozapine program, which involved the distribution of surveys to GPs, clients and carers involved in the program

Work in progress

Researchers are conducting the following projects within the mental health program:

- "A case control study to identify risk factors for myocarditis with clozapine." McNeil J, Fitzgerald P, Taylor A, Ronaldson K, Stevenson D
- "Acceptance and commitment therapy for medication resistant psychosis: A randomised, controlled trial." Farhall J, Castle D, Copolov D, Hayes S, Shawyer F, Thomas N, Pitt C, Ferris K, White E, Rodger P

Knowledge sharing

National AAIMHI Conference (in collaboration with RANZCP), Perth, Western Australia, May

- "Growing up solid: Integrating emotional and mental health throughout infancy, childhood and adolescence." Mackley Y

2nd Biannual Sunraysia Postnatal Depression Planning Forum Conference, Mildura, Australia, November

- "Emotional health in pregnancy and parenthood: Keeping the family in mind."



Project partners and supporters 2010-11

Mercy Health Foundation

Scholarships

Mercy Health Foundation secures philanthropic support and donations to raise funds for clinical research, scholarships and unique initiatives to foster the constant improvement of care. Scholarships support professional development for Mercy Health employees and pay up to \$5,000 of approved course fees. During the financial year the foundation allocated \$86,898.15 (excl GST) in scholarships.

Medical Research Foundation for Women and Babies

Funding awarded to Mercy Hospital for Women researchers

A Thomas, L Blackwell Use of the Brown Ovarian Monitor	\$18,902
Documentation of technical specifications and procedures for the Ovarian Monitor (James Brown Fellowship)	\$50,000
N Jagasia Impact on ovarian reserve of pre-treatment with GnRH agonist prior to ovarian cystectomy for endometriomas	\$10,900
N Jagasia, M Cameron, N Yang, S Esler, P Maher Pre-operative MRI for assessment of bowel involvement in patients with deep pelvic endometriosis	\$17,750
S Liong, H Georgiou, M Di Quinzio Ascertaining the utility of putative biomarkers in the human cervico-vaginal fluid to predict impending preterm labour	\$25,000
M Lappas Long term biochemical implications of GDM	\$100,000
H Georgiou, M Lappas, C Louizos, D Jinks Gestation diabetes mellitus follow up program	\$50,000
D Wilson, A Fung, M Howard, M Barnes, M Lappas, S Walker Sleep disordered breathing in pregnancy induced hypertension and pre-eclampsia	\$21,620
N Barden, S Tong, C Whitehead, S McDonald, S Walker Assessment of fetal wellbeing with fetal Doppler examination prior to induction of labour at term	\$20,592
Total Grant Funding (excl GST)	\$314,764

Austin Pathology funding

Projects approved by the Academic Research and Development Committee, Mercy Health

M Zacharin Establishment for reference ranges for gonadotrophins and androgens in extremely premature infants	\$1,250
A Shub FFF – Facts, figures and feelings about weight gain in pregnancy	\$1,800
K Konig Biomarkers of chronic lung disease and pulmonary hypertension in preterm infants (BICEPS) (follow up study)	\$2,500
H Georgiou The Gestational Diabetes Follow up Project – Screening for early markers of Type 2 diabetes in an at risk population	\$1,000
H Georgiou Investigating the link between early pregnancy and obstetric disease	\$2,500
M Di Quinzio Identification of novel biomarkers to predict impending term and preterm labour	\$1,500
A Shub Prediction of pre-eclampsia in diabetes	\$2,500
Total Funding (excl GST)	\$13,050

Academic Research & Development Committee, Mercy Public Hospitals Inc funding

D O'Neal In hospital palliative and end of life care of people with diabetes mellitus at Werribee Mercy Hospital	\$2,500
C Whitehead Cell free RNA in the maternal blood to monitor fetal growth in utero	\$2,500
K Konig Biomarkers of chronic lung disease	\$2,500
H Georgiou The Gestational Diabetes Follow up Project	\$1,000
M Di Quinzio Identification of novel biomarkers to predict impending term and preterm labour	\$2,500
M Zaccharin Establishment of reference ranges for gonadotrophins and androgens in extremely premature infants	\$1,250
E McCarthy Facts, figures, and feelings about weight in pregnancy: A randomised controlled trial	\$2,500
A Shub Prediction of pre eclampsia in diabetes	\$1,875
Total Funding (excl GST)	\$16,625



Human Research Ethics Committee, Mercy Health

“Our commitment to continuous improvement in care is reflected through the many research projects that are conducted at our hospitals and clinics and in partnership with other organisations.

“The new learnings, research methodologies and clinical practices that come from these projects have the potential to affect many future generations.”

*Professor Peter Carpenter
Chairman, Mercy Health Human Research
Ethics Committee*

Membership of the Human Research Ethics Committee, Mercy Health 2011

*Emeritus Professor Peter Carpenter (Chairman),
Ms Christine Childs, Ms Geraldine Gray,
Sr Helen Monkivitch rsm AO, Associate Professor
Michael McKay, Rev Cormac Nagle OFM,
Dr Linda Mellors, Professor Michael Permezel,
Dr Andrew Watkins, Professor Sue Walker,
Mr Paul Drinkwater, Professor Susan McDonald,
Mr Kevin Fell, Ms Susan Phillips*

The Human Research Ethics Committee operates to ensure that research projects, studies or clinical trials conducted within Mercy Health are undertaken within the guidelines of the 2007 National Statement on Ethical Conduct in Human Research, the Catholic Health Australia guidelines, the Victorian Managed Insurance Authority guidelines for clinical trials and the Health Privacy Principles of the Health Records Act 2001 (Victoria). The committee reports to the Mercy Health Board, National Health and Medical Research Council, and Health Services Commissioner.

All research projects, studies or trials conducted within Mercy Health must first be approved by this committee.

New Research 2011

Projects approved by the Human Research Ethics Committee, Mercy Health

R10/43: Evaluating interhospital transfers in pregnancy: The ITriP study

Dr Emily Huning

R10/44: Evaluation of the Mercy Health O’Connell Family Centre PlaySteps program

Associate Professor Jan Matthews, Ms Rae Lawry

R10/45: Estimation of survival rates of infants born alive at 24 and at 28 weeks in Victoria

Ms Rosemarie Anne Boland, Dr Jim Holberton

R10/47: A case series of live infants with Trisomy 18

Dr Danielle Freeman, Professor Sue Walker

R10/48: Retrospective cohort study on management of pregnant women with hypertension maternal and neonatal outcomes

Dr Johnson George

R11/01: Doppler interrogation of the feto-placental circulation in the preterm growth restricted fetus

Professor Sue Walker

R11/02: Using ultrasound to predict the outcome following induction of labour

Professor Sue Walker

R11/03: Lost in translation? Healthcare providers and South Asian women’s views on gestational diabetes mellitus (GMD) management strategies

Dr M Bandyopadhyay, Professor Michael Permezel

R11/04: Free fetal RNA in the maternal circulation: Development of a new biomarker for obstetric diseases (substudy R10/02)

Dr Clare Whitehead, Professor Permezel

R11/05: Implementation and longitudinal evaluation of a student midwifery fellowship model at Mercy Hospital for Women: Impact on future workforce participation and retention

Professor Susan McDonald

R11/06: Diabetes and antenatal milk expressing (DAME): A randomised controlled trial

Ms Della Forster, Ms Kerri McEgan

R11/07: Knowledge of BCG immunisation amongst parents and healthcare workers

Professor Nigel Curtis, Dr Amanda Gwee, Royal Children's Hospital; Dr Dan Casalez, Mercy Hospital for Women

R11/08: Drowsiness while driving in night shift workers: Expedited approval of recruitment poster only

Associate Professor Shatha Rajaratnam

R11/09: An analysis of the medium to long term effectiveness of intravesical dimethyl sulfoxide (DMSO) in the treatment of interstitial cystitis

Dr Yik Lim, Professor Peter Dwyer

R11/10: Comparing the osmolality and bacterial cultures of three commercially available human milk fortifiers over a 24 hour period

Ms Chelsea Webster, Dr Dan Casalez

R11/11: Mapping services supporting young mothers at risk

Professor Catherine McDonald, RMIT University; Ms Jane Middleton, Mercy Hospital for Women

R11/12: Assessment of feasibility of use of low blood volumes for histocompatibility testing of potential organ donors

Dr Andrew Watkins

R11/13: The experience of music and music therapy for paediatric palliative care patients and their parents who come from diverse cultural backgrounds: A grounded theory study

Ms Lucy Forrest

R11/14: Asking questions about alcohol in pregnancy: (AQUA) A longitudinal cohort study of fetal effects of low to moderate alcohol exposure

Associate Professor Jane Halliday

R11/15: Qualitative interviews with pregnant asthmatic women about the management of their asthma during pregnancy

Dr Johnson George

R11/16: Should very preterm babies receive a placental transfusion at birth? A randomised controlled trial study (Australian placental transfusion study)

Professor William Tarnow Mordi, Professor Sue Walker, Dr Andrew Watkins

R11/17: Prevalence of clinically significant haemorrhage in pelvic floor surgery

Dr Gerard Agnew, Professor Peter Dwyer

R11/18: Outcomes after surgical revision of synthetic slings

Dr Gerard Agnew, Professor Peter Dwyer

R11/19: Prevention of mother to child transmission of hepatitis B during pregnancy and the puerperium: Examining current standards of care

Dr Ruth Grace, Professor Sue Walker

R11/20: Comparing the osmolality and bacterial cultures of three commercially available human milk fortifiers with the addition of probiotic powder and malt dextrin powder

Ms Chelsea Webster, Dr Andrew Watkins

R11/21: A study of unit managers' needs in relation to performance appraisals

Ms Marina Keenan

R11/22: Improving neurobehavioural development in preterm infants: Identifying long term benefits of early stress reduction (follow up to R06/01)

Professor Jeanette Milgrom, Dr Dan Casalaz

R11/23: Hysterectomy or uphold uterine conservation in women with apical prolapsed: A randomised controlled trial

Professor Peter Dwyer, Dr Joe Lee

R11/25: Indigenous identification in hospitals separations data: An audit at Mercy Hospital for Women

Ms Mary Sullivan, Ms Denise Moody

R11/26: Ibuprofen instead of indomethacin for patent ductus arteriosus closure

Dr Rosalynn MacKinnon, Dr Andrew Watkins

R11/27: Audit comparing non invasive and invasive blood pressure monitoring in term and near term newborns in the Neonatal Intensive Care Unit

Dr Kai König, Dr Andrew Watkins, Ms Ellen Stock, Ms Emma Carabott

R11/28: The prediction study: Prevalence and risks for ex-utero death in a cohort of pre-term inborn and outborn neonates

Ms Rosemarie Boland, Dr Andrew Watkins

R11/29: Young women's experience of lymphoedema

Ms Penelope Sanderson

R11/30: An investigation into the impact of activities and occupations on the health and wellbeing of people with ongoing health conditions

Dr Primrose Lentin, Ms Penelope Sanderson, Ms Carolynn White

R11/31: Excessive gestational weight gain: An exploration of midwives' attitudes, views and practice

Dr Karen Campbell, Ms Jane Wilcox

R11/32: Exposure to tobacco smoke in pregnancy: A survey of outpatients

Dr Johnson George, Ms Annabel Werumeus Buning

R11/34: Establishment of a tissue bank at the Department of Obstetrics and Gynaecology, Mercy Hospital for Women

Associate Professor Stephen Tong, Professor Michael Permezel

R11/35: Mean peak antiXa plasma levels when using a weight based enoxaparin thromboprophylaxis regime following a caesarean section

Associate Professor Scott Simmons

R11/39: A survey of inotrope and vasopressor line change practices in Australian and New Zealand neonatal intensive care units: A pilot study

Dr Wendy Pollock, Ms Megan Burgmann, Ms Sally Jetson

R11/40: Young children's social-emotional wellbeing study

Associate Professor Brigid Jordan, Ms Veronica Love

R11/41: New oxygen saturation limits clinical outcomes audit

Dr Kai König, Dr Andrew Watkins

R11/42: Audit of undergraduate students undertaking their Women's Health term

Dr Katrina Guerin, Professor Michael Permezel

R11/43: Development of a teaching package on neonatal death management

Dr Deborah Zion, Dr Andrew Watkins

R11/44: Volume rendered ultrasound of the fetal spine: What is good?

Ms Catherine Harding, Dr Virginia Saxton

R11/47: Investigating the link between pregnancy complications and adult disease in life

Dr Martha Lappas, Professor Michael Permezel

R11/48: A multicentre, retrospective and prospective study to compare endometriosis classification systems

Associate Professor Peter Maher, Dr Nisha Jagasia

R11/49: The corpus callosum – quick or cumbersome?

Dr Dina Rubinfeld, Dr Virginia Saxton

R11/50: The risk of retinopathy of prematurity in very preterm infants on sildenafil treatment: A quality assurance and safety audit

Dr Alice Fang, Dr Dan Casalaz

R11/51: Expectations, fears and pain experience: Identifying external and internal threats to perceived safety for women in two birthing environments

Mr Lester Jones, Ms Angela Muir

R11/52: Feasibility of a trial of the role of acupuncture in reducing formal induction of labour and use of epidural analgesia in women with uncomplicated pregnancies giving birth at 40+ weeks gestation

Dr Mary-Ann Davey

R11/53: Information and support to women who experience a miscarriage at Mercy Hospital for Women

Ms Mary McCarthy, Professor Susan McDonald

R11/54: Antidepressant exposure in pregnancy and child outcomes in a population based sample

Dr Megan Galbally

R11/55: Management and outcomes in an antenatal clinic for women with bipolar affective disorder and schizophrenia

Dr Megan Galbally, Dr Josephine Power

R11/57: Outcomes of preterm infants requiring a brief period of mechanical ventilation or non invasive ventilation only

Dr Kai Konig, Dr Andrew Watkins, Dr Katelyn Guy

R11/58: Retrospective quality assurance audit of intrauterine blood transfusions of isoimmunised women performed at Mercy Hospital for Women between 2000 and 2011 and associated obstetric and neonatal outcomes and complications

Dr Caroline Hoggenmuller, Professor Michael Permezel

R11/59: Nutritional intake of extreme preterm infants in the first two weeks of life audit

Dr Kai Konig, Dr Andrew Watkins, Dr Rocco Cuzzilla

R11/60: Pre-operative haemoglobin level in patients undergoing caesarean section: Retrospective analysis

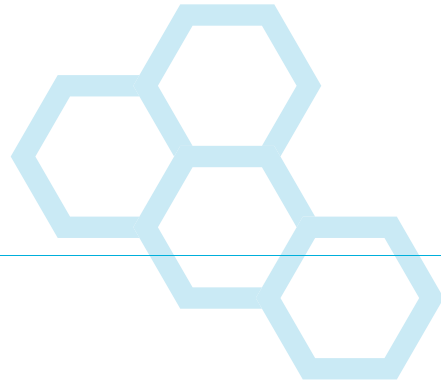
Dr Richard Hiscock, Associate Professor Scott Simmons

R11/69: Sibling involvement in the Neonatal Intensive Care Unit: A practical solution

Ms Geraldine Walsh, Ms Amanda Heffernan, Dr Andrew Watkins

R11/70: Evaluation of an education program to increase staff knowledge on the provision of prenatal genetic testing information to women

Ms Kym Harrison, Professor Susan McDonald



In print and online

Our researchers, teachers and clinicians are regularly featured in professional publications and online.

*Some key works for **Werribee Mercy Hospital and The University of Notre Dame Australia Melbourne Clinical School:***

Soltani A, Ewe YP, Lim ZS, Sohal SS, Reid D, Weston S, Wood-Baker R, Walters EH. Mast cells in COPD airways: Relationship to bronchodilator responsiveness and angiogenesis. *Eur Respir J*. 2011 Oct (e-pub ahead of print)

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**Department of Obstetrics and Gynaecology,
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Midwifery Professorial Unit/Professional Development & Research Unit (Nursing and Midwifery), La Trobe University/Mercy Hospital for Women

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**Department of Gynaecological Oncology,
Mercy Hospital for Women:**

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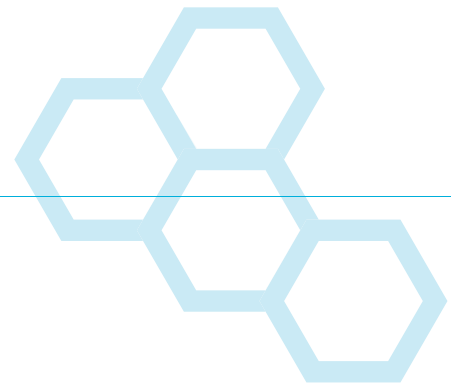
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Where we are located

Mercy Health cares for people in Victoria, southern New South Wales and the Australian Capital Territory.

Health services

Victoria

Mercy Hospital for Women,
Heidelberg: 03 8458 4444

Well Women's Clinic,
Ivanhoe: 03 8458 4880

Mercy Health Lymphoedema Services,
East Melbourne: 03 8458 4990

Mercy Health O'Connell Family Centre,
Canterbury: 03 8416 7600

Werribee Mercy Hospital,
Werribee: 03 9216 8888

Mercy Mental Health,
Saltwater Clinic: 03 9928 7444

Mercy Mental Health
Triage Service: 1300 657 259

Mercy Palliative Care: 03 9364 9777

Mercy Grief Services: 03 9364 9838

NSW

Mercy Health Albury: 02 6042 1400

Mercy Care Centre Young: 02 6382 8444

Aged care

Victoria

Mercy Health Bethlehem Home for the Aged,
Bendigo: 03 5440 8200

Mercy Place Colac: 03 5233 5600

Mercy Place East Melbourne: 03 9413 1777

Mercy Place Montrose: 03 9724 6000

Mercy Place Parkville: 03 9385 9222

Mercy Place Rice Village, Geelong: 03 5241 3686

Mercy Place Shepparton: 03 5832 0900

Mercy Place Wyndham, Werribee: 03 8734 6500

Mercy Place Warrnambool: 03 5564 2800

NSW

Mercy Place Albury: 02 6024 9500

Mount St Joseph's Nursing Home,
Young: 02 6380 1300

Home and community care

Victoria

Mercy Home & Community Care:

City of Melbourne: 03 9658 9733

Colac: 03 5233 5603

Geelong: 03 5272 3133

North West Metropolitan Melbourne:
03 9385 9444

South East Metropolitan Melbourne:
03 8530 6999

ACT

Mercy Home & Community Care:
Canberra: 02 6253 3868

Health worker training

Mercy Health Training Institute: 03 9261 2085

Support and administrative services

Mercy Health: 03 8416 7777

Mercy Health Foundation

Richmond: 03 8416 7766

Careers

For careers information at Mercy Health
go to: careers.mercy.com.au

