PERINATAL SOCIETY of Australia & New Zealand

PSANZ

AUGUST 2016 NEWSLETTER

A WORD FROM OUR PRESIDENT

It is with great pleasure that I welcome you to this newsletter as the newly installed President of PSANZ. PSANZ, I do not think, has ever been in such a strong position and much of that is down to the tireless enthusiasm and energy of my immediate two predecessors Frank Bloomfield and Vicki Flenady. The structure of PSANZ and its governance has been transformed in the past few years such that it now well placed to advocate for the importance of research and care in the perinatal period.

The recent Congress was a great occasion and again I would like to acknowledge Guan Koh and Jackie Smith for their leadership and also the work of the ECRs who helped craft a programme that included many small group educational and learning activities. People looked resplendent in their blue "Gone Troppo" shirts, which added not only to the informality but also the collegiality of the meeting.

These are exciting times for health and medical research and health care provision. The structural reform of the NHMRC and the advent of the MRFF are new opportunities to support the research that matters to our nation. Amongst the priorities that I have as President are to ensure that the fundamental importance of a healthy start to life is recognized as a national priority. The emphasis has shifted to the chronic disease burden of an aging population but any thoughtful strategy needs to invest in ensuring that the population commences well in order for their to be stemming of the tide of chronic disease in later life. It is a narrative that has been lost.

In order to ensure that all Australians have a health start to life there are other challenges that I hope PSANZ will take up during my presidency. A focus on disadvantaged populations is planned and I hope that a special interest group will be formed addressing those populations for whom birth and newborn outcomes are a step change away from what are enjoyed by many. Our established subcommittees continue to go from strength to strength and these will be highlighted again at our Congress in 2017 in Canberra.

Ultimately any Society exists for the benefit and needs of its members. If any member has ideas about how PSANZ can more effectively serve its membership please do not hesitate to contact me.

Warm regards

Jonathan Morris

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A WORD FROM OUR SUB COMITTEERS

ECR SUBCOMMITTEE

It's been a busy year for the PSANZ ECR committee. We worked really hard to put together the Hot Topics in the Tropics program, which we hope added a little extra flavour and energy to this year's meeting in Townsville.

It was great to see so many ECRs actively involved in this year's meeting. Many of us reviewed abstracts, judged awards and chaired symposia and concurrent sessions. Well done to all, we hope this level of involvement an enthusiasm continues into the future.

One of our key objectives this year was to rejuvenate the PSANZ ECR website. Our goal was to make the website more user friendly and interactive. We've added additional content such as funding opportunities for ECRs: https://ecr.psanz.com.au/funding-opportunities-for-ecrs/ and useful resources: https://ecr.psanz.com.au/resources/, which include some of the very insightful and thoughtful presentations from this year's meeting.

These include: 'Tips for writing an NHMRC project grant" by Prof Peter Anderson, "Stepping up from ECF to CDF" by Dr Hayley Dickinson and Publication ethics and Presentation tips and tricks by A/Prof Tim Moss. If we've missed anything or if you'd like to see additional content uploaded please let us know.

We are seeking suggestions towards the layout and content for next year's ECR symposium at PSANZ 2017 in Canberra. Please address your suggestion to Rob Galinsky and Annie McDougall, PSANZ ECR Committee co-chairs. We can be contacted here: https://ecr.psanz.com.au/contact-the-psanz-ecr-committee/

With the very best,

The PSANZ ECR team

(Rob Galinsky, Annie McDougall, Rose Boland, Emily Shepherd, Charlotte Oyston and Amy Keir)

THE CAP PANEL MET IN TOWNSVILLE FOR THE 2016 CONFERENCE

Townsville Conference was an exception as all members were able to attend except for One. CAP members had an intricate role within the PSANZ conference this year, where many members chaired or co-chaired sessions. One of our members also shared a family's story.

The CAP is already planning for the 2017 conference and how they can bring the families' stories and experiences to the members of PSANZ.

The CAP is represented from a broad range of community organisations and has the ability to provide important feedback to PSANZ members with any work that they are undertaking, whether this be with a paper that is being written, or a trial etc.

CAP members have also nominated a member for all of PSANZ sub committees so that there is a consumer presence over all aspects of PSANZ. This is important to the CAP so that we can work alongside the various projects that are ongoing with PSANZ.

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IMPACT NETWORK

There has been some minor restructuring of the IMPACT Network over the last few months with integration of the scientific and operational committee's activities into the steering committee. This has seen a number of new members join the steering committee making us a very big committee but one ready for action.

We have our first collaborative Concept Development Workshop being held in Sydney this week. The meeting is co-hosted by the NHMRC Clinical Trials Centre and will focus on 3 trial concepts which we hope will develop into large collaborative projects across Australia and New Zealand inclusive of many PSANZ members. The concept themes are; the use of ultrasound indicated cervical cerclage to improve newborn outcomes, lower or higher oxygenation to resuscitate preterm infants and the value of routine late third trimester USS and planned delivery for IUGR to reduce perinatal morbidity and mortality. We hope this workshop will become an annual event to ensure we have an on-going pipeline of clinical trials under development for IMPACT members.A date for your diary: our last IMPACT Network meeting for this year is planned for Friday 25th November. This meeting will be held in Melbourne and the theme will be 'Core Outcomes in RCTs in Maternal and Perinatal Health'. There will be the usual opportunities to present current and proposed trials for feedback from the IMPACT Network Community. A call for abstract submissions along with further meeting details will be available soon https://impact.psanz.com.au/. Note: the ACTA Summit will also be held in Melbourne on Thursday 24th November, further details at http://www.clinicaltrialsalliance.org.au/

Please don't forget to look at the new website https://impact.psanz.com.au/. We have a lot of useful information for those interested in undertaking clinical trials from the trial concept phase through to analysis and follow-up. The PSANZ 100+ clinical trial database is also being uploaded with some additional features including a user friendly searchable function so you can see what trials have been undertaken and which trials are on-going and available to get involved with across Australia and New Zealand.

The IMPACT Network website also provides the opportunity to review our criteria for IMPACT Network trial endorsement. The purpose of the endorsement process is to recognise those rigorously designed trials that are feasible and address the most pressing and urgent clinical questions in maternal and perinatal health. Specifically, through endorsement of trials the IMPACT Network aims to:

- Increase collaboration and engagement with the IMPACT Network.
- Increase efficiency by decreasing duplication.
- Increase capacity, leading to better efficiency and economy of studies.
- Increase the IMPACT Network community's awareness of important trials by seeing which ones are endorsed.
- Promote the development of trials which focus on areas the IMPACT Network sees as key questions.

IMPACT | Interdisciplinary Maternal Perinatal Australasian Collaborative Trials Network
a subcommittee of PSANZ — *for improving mothers and babies health*

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POLICY MATTERS

CHAIR: LYNN SINCLAIR

It is an honour and privilege to chair the policy subcommittee whose members are so dedicated that they all attended a 7am meeting on the Sunday morning of the Townsville congress! What a team – find out who these amazing people are on our web page https://policy.psanz.com.au/members/. Thanks also go to all PSANZ members who have contributed to our achievements over the past year:

GUIDELINES/POSITION STATEMENTS ENDORSED:

New Zealand and Australian Antenatal Corticosteroids Clinical Practice Guidelines

National Blood Authority – Patient Blood Management Guidelines (maternal and neonatal)

Safer Sleeping Products for Infants Position Statement

REPRESENTATION ON OTHER BODIES OF WORK:

Newborn Blood Spot Screening

ANZCOR Resuscitation Guidelines

RACP Evolve Program

AIHW National Maternal Perinatal Mortality Advisory Group

RACP Paediatric Policy & Advocacy Committee

Australia & New Zealand Resuscitation Council

RESPONSES TO RELEVANT INVITED COMMENT FROM EXTERNAL BODIES ON GUIDELINES OR /POLICY:

NHMRC Better Health Care through Better Clinical Guidelines

WHO Interim Report of the Commission on Ending Childhood Obesity

Infant Feeding Guidelines update

Australian Immunisation Handbook 10th Edition update

Victorian Safe Sleeping Guidelines

RCOG Review on Cord Clamping for Term Babies

Hologic Point of Care Testing

OUR PLANS FOR THE NEXT 12 MONTHS INCLUDE:

Development of elearning packages for the perinatal Mortality, DFM and FGR guidelines in collaboration with PSANZ SANDA and the Consumer Advisory Panel

Establishing relationships with the Guidelines International Network

Completion of the Decreased Fetal Movements Pathway

Completion of the Perinatal Mortality guidelines

Development of guidelines for Antenatal Detection and Management of Fetal Growth Restriction

Development of guidelines for Care of Indigenous Women

Development of a Smoking Cessation/ Pre-pregnancy Obesity/Obesity in Pregnancy Position Statements

Development of our website pages

CONFERENCE SUBCOMMITTEE

The Congress held in Townsville was memorable for many reasons.

The local organising committee, under Guan Koh's leadership, had promised us that it would be informative and informal and from beginning to end they did not disappoint.

From the ceremonial cutting of the tie and the tropical shirts at the opening to the closing poolside drinks there was a distinctive FNQ feel to the entire occasion.

The international invited speakers, Annie Janvier, Jon Barrett, David Osrin and Jackie Ho entered into the spirit of the Congress making themselves available for meet the expert sessions as well as participating in symposia and breakfast sessions.

The content of the sessions and the standard of the free communications was very high and the strengths of a respectful transdisciplinary Society that PSANZ is shown through.

Overall the feedback for the event that was received was very positive with many people commenting on how they enjoyed meeting the experts, the practical workshops and symposia.

We want to extend our thanks to Guan and his team as well as Jenny and her team at Corporate Communique.

The organising committee for our next Congress in Canberra next year have commenced meeting and Latif Mohammed is the Convenor.

We do hope that you will be joining us as we meet under the banner theme of from Policy to Practice.

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PERINATAL PALLIATIVE CARE (PPC) SUBCOMMITTEE SYMPOSIUM

This year the PSANZ PPC Subcommittee held a Symposium on Critical Ethical Issues. The Symposium was held on 22nd May 2016 and focussed on ethical issues relating to three key areas in the perinatal palliative care context:

1. **Communication, Culture, and Decision-making**

a. Cross-cultural communication in the healthcare context

b. How we can learn to communicate more successfully with Aboriginal and Torres Strait Islander peoples in the context of perinatal palliative care

c. Basic communication rules to enhance end-of-life communication with parents

2. **Withdrawal/withholding of treatment**

a. Legal & ethical aspects of withdrawal/withholding of treatments

b. The cost of treatments and the principle of justice

c. Spiritual and moral distress in withdrawing/withholding treatments

3. **Ethical Decision-making**

a. The role of clinical ethics consultations in ethical decision-making

b. Ethical decision-making from a parent's perspective

c. Decision-making for parents with mental illness

Setting this symposium apart from other such forums was the combination of novel topics delivered by experts in their respective fields and the inclusion of a father to speak of his family's experience, a powerful and humbling learning experience for healthcare professionals. The session concluded with a case analysis.

Feedback from attendees was extremely positive with many citing the multidisciplinary nature of the talks, the inclusion of a father's contribution, and the case analysis as key strengths. Participants also found this to be an excellent opportunity to consider crucially important ethical issues that commonly arise in perinatal palliative care with healthcare professionals from a wide range of related disciplines.

The PSANZ PPC Subcommittee Executive would like to thank Jenny Boden and her dedicated team for the excellent support they all provided before, during, and following the Symposium.

THE PERINATAL SUBSTANCE USE (PSU)

The Perinatal Substance Use (PSU) subcommittee held the 4th PSU conference at the Crown, Melbourne on April 23 2015, attended by almost 400 delegates from perinatal, drug and alcohol, social work and other specialties. The conference focused on one of the most important drugs affecting women of child-bearing age - methamphetamines.

In 2017, we will hold the 5th PSU conference on Sept 14th and 15th in Sydney. The venue is yet to be confirmed. This meeting will explore problems associated with perinatal drug use beyond the neonatal period, with the theme of "perinatal drug use, from conception to college".

A (free) tour of the Medically Supervised Injection Centre (MSIC) in Sydney (the only one in the Southern Hemisphere) will be organized for interested participants.

The PSU will also establish research and conference grants from the proceeds of our conferences to encourage study into the field of perinatal substance use. Further announcement about this will be made later in 2016.

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STILLBIRTH AND NEONATAL DEATH ALLIANCE (SANDA)

A workshop to update the PSANZ Perinatal Mortality Guidelines and to develop a fetal growth restriction (FGR) training program

0900 to 1430, 26th May 2016

Venue: Ballroom 2, The Ville, Townsville

WORKSHOP SUMMARY

Overarching goal

The overarching goals of the workshop were to improve: a) data quality on stillbirth to better inform strategies to reduce these deaths; b) the quality of care and outcomes for mothers, fathers and families when their child dies in the perinatal period and; c) antenatal detection of fetal growth restriction.

Purpose:

1. To reach consensus on investigation and classification of the causes of stillbirth and to provide guidance to assist maternity health care providers in optimal supportive care following a stillbirth or neonatal death as part of the 2016 update of the PSANZ Perinatal Mortality Guidelines.
2. To finalise the content of the proposed PSANZ Fetal Growth Restriction educational program.

INTRODUCTORY SESSION:

PSANZ SANDA Chair Jeremy Oats welcomed everyone to the workshop

Break out groups were arranged depending on participant preference to deal with the key issues to be addressed.

The background to each break-out group was given as follows:

BREAK OUT GROUP TASKS AND OUTCOME

Group 1: Audit to identify contributing factors, Classification and placental pathology.
Facilitators: Yee Khong, Jeremy Oats and Vicki Flenady

The group was tasked with reaching consensus on:

1) The assignment of contributing factors using the tool adapted from the New Zealand Committee;
2) Changes to classification categories (largely relating to placental pathology), use of hierarchy, and an expanded list of associated conditions; and
3) Definitions of perinatal infection and fetal growth restriction.

Agreement was reached on assignment of contributing factors (to use NZ model but with the addition of allowing a rating of avoidably of each factor), and placental pathology categories by expanding the FGR category and removing such pathologies form the unexplained antepartum death category, and other minor category changes. It was decide to complete remove the use of a hierarchy. Further work was required to finalise the associated conditions list and definitions of perinatal infection and fetal growth restriction. Next steps. The outstanding issues will be finalised via email. The classification will then be circulated for wider comment including all health department perinatal committees in ANZ. The aim is to have the new system ready for use in January 2017.

Group2: Stillbirth investigations:
Glenn Gardener

The group was tasked with modifying the recommended stillbirth investigations based on current evidence and to define what constituted adequate investigation for the unexplained antepartum death category. Agreement was reached on a revised protocol for investigation of stillbirth with the main change around thrombophilia testing .
Next steps: The revised section of the guideline will be finalised and circulated for wider comment including all health department perinatal committees in ANZ. The aim is to have the new protocol available by January 2017.

Group3: Quality respectful care:
Fran Boyle

The group was tasked with developing a framework for the revised psychosocial and social aspects of care section of the current guideline.
Agreement was reached on a framework and the need to develop resources for families which aligned with each section of the perinatal mortality guideline.
Next steps: The group agreed to continue to work together to finalise this section over the coming months.

Group 4: FGR workshop:
Alison Kent

The group was tasked with: reviewing content of each station and suggesting interactive educational strategies for each station
Agreement was reached on content and educational strategies
Next steps: finalisation of each station in preparation to have a run through of the course by the end of the year. Preparation of a request for funding through Victoria Health to support the first course and conversion to an e-learning program

The background to each break-out group was given as follows:

Classification; PSANZ PDC and NDC	Vicki Flenady
Important placental pathology	Yee Khong
Audit to identify contributing factors	Jeremy Oats
Quality respectful care	Fran Boyle
Stillbirth investigations	Glenn Gardener
FGR workshop	Alison Kent

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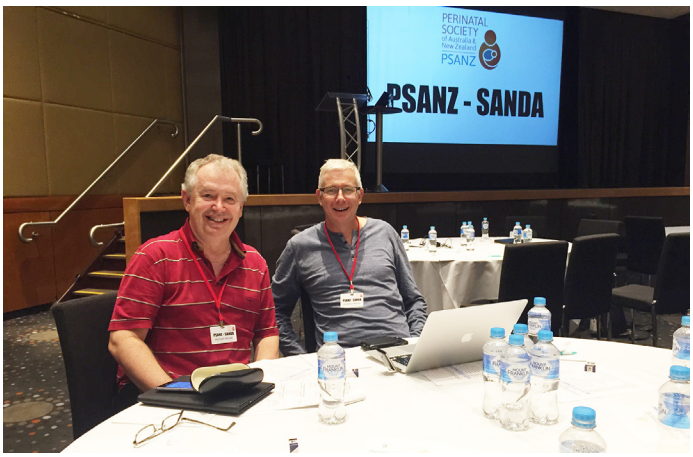
STILLBIRTH AND NEONATAL DEATH ALLIANCE (SANDA)







UNDERSTANDING AND IMPROVING LONG-TERM OUTCOMES FOR HIGH RISK BABIES SUBCOMMITTEE

The new subcommittee for Understanding and Improving Long-Term Outcomes for High Risk Babies had a very positive first meeting at the recent PSANZ Congress.

We will soon begin the election process for positions on the inaugural Executive Group of this subcommittee. Further details will follow so to stay updated, please contact highriskbabies.psanzgroup@mcri.edu.au to ensure you are on our mailing list.

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PSANZ 2016 CONGRESS

"I really enjoyed all aspects of the congress, exciting, interesting, casual, friendly.... just fab!"

"Relaxed, friendly, informal feel where you bumped into people all the time and could talk to them. Excellent use of international speakers. '

"Sharing work/ideas/ experiences/food and wine with others. There was great camaraderie and support for the society."

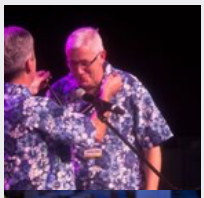
"The conference was fantastic and I am impressed about how the different disciplines are working together."

"I really enjoyed all aspects of the congress, exciting, interesting, casual, friendly.... just fab!"

We have captured some fantastic snapshots from Townsville...

You can click on each link and view or download:

- Opening and general shots
- Day One
- Day Two
- Day Three
- Gala Dinner



A number of comments came in around our innovative sessions!

After two years as President, Frank Bloomfield 'handed the baton' to Jonathan Morris

With this year being our 20th birthday, there were celebrations and of course the traditional cake cutting by the Jonathan Morris and Frank Bloomfield.

PSANZ DAVID HENDERSON-SMART AWARD 2017

Call for applications close 31st October, 2016

Emeritus Professor David Henderson-Smart had a long history of association with the Perinatal Society of Australia and New Zealand (PSANZ).

He was a founding member of the Australian Perinatal Society and championed the development of new researchers in all disciplines.

In 2007, he retired from active academic and clinical work and was honoured with a 'festschrift' to celebrate his work.

The proceeds resulting from this day were generously donated by the organising committee (at Royal Prince Alfred Hospital) to PSANZ to establish a fund in his honour.

David passed away on 7th February 2013. This fund has now become the David Henderson-Smart Scholarship to enable his vision of perinatal research and evidenced based practice to be realised.

This scholarship is focussed on assisting our brightest early career researchers in developing a research career in perinatal medicine.

Click here to download scholarship application details.

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AWARD WINNERS

REPORT FOR THE DAVID HENDERSON-SMART SCHOLARSHIP 2016

Charlotte Oyston

I am extremely grateful to have been awarded the 2016 PSANZ David Henderson-Smart scholarship. This scholarship allowed me to travel to Canada to present my PhD research at the meeting of the Society for Reproductive Investigation (SRI), and to visit the laboratory and specialised placental clinic run by internationally renowned researcher and maternal-fetal-medicine specialist, Dr John Kingdom. The key objectives of the trip were to engage with and receive feedback from international researchers through the presentation of my own research, and to gain insight into how world-class research into placental disease can be facilitated / performed alongside high-quality clinical care.

SOCIETY FOR REPRODUCTIVE INVESTIGATION ANNUAL SCIENTIFIC MEETING

The meeting of the Society for Reproductive Investigation (SRI) is the premier obstetric and reproductive sciences meeting of North America. The main meeting is preceded by a full day of satellite meetings. In 2016, the meeting was held in Montreal, Canada.

The satellite meetings provide an excellent overview of some of the most exciting work, techniques and research directions within obstetric and reproductive sciences. My area of research interest is developing treatments for placental dysfunction, so of particular relevance to me were the placental and fetal physiology meetings. Highlights of this meeting included presentations on the metabolomic and transcriptomic profile of placenta in preeclampsia, and in vivo studies of placental transport and metabolism in human pregnancy. Despite the broad range of research techniques that were utilised, a recurring theme in many of the sessions was the need for high quality clinical data to accompany any specimens or measurements taken; this allows for an accurate and specific description of the disease or phenotype studied, and helps to give clarity to the mechanisms underlying disease processes as well as the applicability of research findings.

The annual meeting takes place over 3 days, and contains plenary sessions, mini-symposia, oral and poster sessions. I was grateful for the opportunity to present my research – Sildenafil citrate improves fetal growth independent of uterine artery function in high fat diet models of growth restriction - at the oral session on fetal growth. The paper was well received, and following the session I was able to discuss aspects of the project (and its challenges) with other scientists working in a similar field. Other highlights of the meeting were symposia on preterm birth (aetiology and prevention), and the distinguished lecturer's session given by George Q Daley, (professor of biological chemistry and molecular pharmacology at Harvard Medical School). The lecture centred on the important ethical issues arising in the use of new technologies in reproductive health, what considerations should be made when assessing the safety of new technologies, and how these new technologies should be progressed.

The meeting also ran networking sessions for new investigators. New investigators were able to meet many of the societies' senior investigators, who provided personal insight into a variety of subjects, including how to balance a clinical and academic workload, writing successful grant applications, and keeping a work-life balance. The session was extremely popular, and was also a good opportunity to meet other junior investigators who were facing similar challenges.

VISIT TO PLACENTA CLINIC AT MT SINAI HOSPITAL AND LAB VISIT AT THE LUNENFELD-TANENBAUM RESEARCH INSTITUTE

Following the SRI meeting, I travelled to Toronto where I visited Mt Sinai Hospital and The Lunenfeld-Tanenbaum Research Institute (a large biomedical research institute located at the hospital) under the hospitality of Dr John Kingdom. I was invited to present to the lab group of Dr Stephen Lye - whose research focusses on understanding the molecular and inflammatory underpinnings of pre-eclampsia, and pre-term birth. Following a group discussion I was able to spend time with individuals from the group for more in-depth discussion of their current projects. One of the great resources available to these researchers is a large and well-resourced placental biobank. The biobank is based at the research institute, and coordinates systematic collection and storage of placenta, placental membranes, umbilical cord and cord blood from both normal pregnancies and pregnancies affected by pathology. This has facilitated the study of the placental pathology that leads to preeclampsia, the development of predictive biomarkers for preeclampsia and preterm birth, and the development of therapeutic agents for the treatment of preeclampsia. I met with the placental biobank coordinator Pilar Zanoni, who discussed practical aspects of setting up and running the biobank, as well as their well-established protocols for collection and processing of samples.

During my week at Mt Sinai hospital I attended daily rounds and observed in many specialty clinics (including fetal medicine, preterm birth, maternal medical conditions, and maternal cardiac disease clinics), however the focus of my visit was the placenta clinic. The placenta clinic is a sub-speciality clinic of maternal-fetal medicine, and facilitates the obstetric care of women who have previously had, currently have, or are at risk of having a complication of placental disease (for example growth restriction, pre-eclampsia, placental abruption or invasive placentation). The placenta clinic is the first of its kind in the world and was set up (and is still run) by Dr John Kingdom and Dr Rory Windrim. Referrals to obstetric high-risk clinics are triaged by a specialist midwife, with criteria for referral to the placental clinic including abnormal first trimester screening results, medical risk factors for placental damage, obstetric history suggestive of previous placental damage, a pregnancy complicated by hypertension or growth restriction, or sonographic abnormalities of the placenta. All women seen in the clinic receive thorough ultrasound examination of the placenta, as well as assessment of fetal growth and circulation. The placental ultrasound assesses placental site, attachment, anatomy, texture, as well as umbilical artery anatomy and flow, and uterine artery blood flow. These measurements mean that an assessment of placental phenotype can be made, which can be used for research purposes in conjunction with clinical outcomes. Ultrasound assessments are performed by midwives, fellows or the Staff obstetrician, with each patient having their scan reviewed and seen by the Staff obstetrician who directs the plan for their ongoing care. Given the highly selected and high-risk population, this clinic is the ideal setting for research into pregnancy complications stemming from placental pathology. As such, the clinic has a dedicated research midwife who is able to discuss studies and consent women to research projects that are currently recruiting.

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CONCLUSION

This was an exceptional opportunity from which I came back inspired and enthused about continuing my own research, and possibilities for the future. I was able to present my research to the leaders of researcher in my field and received valuable feedback. Through my visit and meetings at the placenta clinic and placental biobank, I was able to observe how basic science research needs can be incorporated or

included alongside clinical care. A recurring theme of the trip was the need for research to be driven by clinical questions, and the need for high-quality and complete clinical information to accompany any specimens collected. This highlights the importance of maintaining strong links between basic scientists and those providing clinical care, in order to facilitate meaningful and high quality research.



APPENDIX – ITINERARY

WEDNESDAY MARCH 16 - FETAL PHYSIOLOGY AND PLACENTAL SATELLITE MEETINGS

Using metabolomic profiling to identify distinct sub-classes of placental dysfunction in preeclampsia – Shannon Bainbridge-Whiteside

Determining in vivo human placental nutrient transfer and metabolism using four-vessel sampling and blood flow measurements – Trond Michelson

Maternal diet, obesity and fetal adaption – where are the hits coming from? – Jed Friedman

Maternal / fetal metabolomics in intrauterine growth restriction and preterm birth - Dominique Darmaun

The relationship between serial prenatal ultrasonography, placenta phenotype and adverse pregnancy outcome – Gordon Smith

Advances in fetal gene therapy: getting a better deal for the fetus – Anna David

Environmental ingredients make the placenta – Kent Thornburg

THURSDAY MARCH 17 – SRI MEETING

Presidents distinguished lecture: Uniting the Genome: A novel function of piRNAs - Haifan Lin

New Investigators plenary

Poster session

Concurrent oral presentations – Maternal biology and health

Preterm parturition syndrome – Roberto Romero, Gil Mor, Kristina Adams, Roger Smith

Networking event for new investigators - Connection Corners

FRIDAY MARCH 17 – SRI MEETING

Fetus I – presentation

Poster session

Presidents distinguished lecture Stem cells, reproductive technologies and challenges for the future

Symposium – What do circulating cell-free nucleic acids teach us about placental and perinatal biology?

Concurrent oral presentations- Clinical perinatology; Preeclampsia

Saturday March 18 – SRI meeting

Poster session

Concurrent oral presentations - Developmental programming

Awards ceremony

MONDAY- THURSDAY 21ST – 24TH - MT SINAI HOSPITAL

MONDAY

High risk clinic chart rounds

Lab visit and presentation Dr Stephen Lye

Meeting with lab group members and placental bio-bank coordinator

Medical diseases of pregnancy clinic

TUESDAY

Placenta clinic

Fetal medicine rounds

WEDNESDAY

Fetal medicine clinic

THURSDAY

Preterm birth clinic

Maternal complications of pregnancy patient care conference

Maternal cardiac clinic

HUMAN MILK BANK: APRIORITYSETTING PARTNERSHIP

Can you think of any questions about human milk banking or the use of donor human milk for preterm babies that you would like answered?

Do you think answering those questions through research will help improve human milk banks and the lives of preterm babies?

If so, this is your chance to be heard.

Nutrition researchers from the South Australian Health and Medical Research Institute (SAHMRI) and Flinders University are involved in a project that aims to collaboratively establish the top research priorities in the area of human milk banking and the use of donor human milk. This is a unique project as it is seeking the views of all stakeholders - parents of preterm infants, milk donors (past or present), potential milk donors, health professionals and researchers.

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PEDAL: PARENT EDUCATION FOR DEVELOPMENTAL LITERACY

Megan Bater, Dr Nicolette Hodyl, A/Prof Michael Stark.

University of Adelaide, WCH Adelaide, Robinson Research Institute.

Our research, PEDaL, (Parent Education for Developmental Literacy), sought to work collaboratively with mothers and fathers who have experienced their new-born baby being admitted to a Neonatal Unit. We aimed to better understand parents' perceived needs and priorities regarding education about normal child development.

To facilitate this, we developed an online parent questionnaire via Survey Monkey. Our questionnaire was posted to the Facebook page of the Miracle Babies Foundation. We were thrilled with the number of responses – in just 6 days 316 parents submitted complete surveys, providing data on 404 children that have graduated from neonatal intensive or special care units across Australia.

Parents in this study strongly felt that in order to be relevant to them, child development education content must be specific to children born prematurely. Overall, 259 (82%) of participants believed this to be true. Parents clearly preferred face to face teaching as the ideal method for receiving education with almost 70% of participants ranked this as their preferred mode of delivery. Finally, parents overwhelmingly chose for child development education to begin whilst their baby was inpatient in the Neonatal Unit, and for it to continue after they had brought their babies home.

Importantly, collaborating with consumers in this research has vastly improved our understanding of the education needs and priorities of mothers of children who have recently graduated from NICU or SCBU. The knowledge we have gained will help inform the design and structure of an innovative education intervention for mums and dads with babies in the Neonatal Unit - designed to improve parent developmental literacy and optimise outcomes for children born to early, too small or too sick. Developing this intervention is the aim of our ongoing PEDaL research.

PSANZ– NUTRITION RESEARCH AWARD

PSANZ New Investigator Award Best Oral Presentation - Allied Health / other specialities

PSANZ New Investigator Award Best Poster Presentation - Allied Health / other specialities

Ever since "gavage" feeding of preterm babies began in the late 19th century and nutritional intake could be determined by doctors and nurses rather than by the baby, we have faced the dilemma of how much nutrition is needed to achieve optimum growth. Despite 100 years of research and more than a thousand publications on neonatal nutrition and growth, the optimal protein and energy intake needed for preterm babies to match intrauterine growth remains unknown. We suspected an important factor contributing to this might be the variation in how nutritional intake and growth data is reported.

To investigate this we formed a collaboration with three leading international neonatal nutrition researchers. We reviewed 22 studies comparing approximately 3 vs. 4 g.Kg-1.d-1 protein in the first month after birth. We found a surprising variety of different references had been used to calculate energy and protein intakes from breastmilk and intravenous nutrition. Growth velocity was calculated using at least three different methods, which give different results, and growth Z-scores were calculated and reported in 15 of the 22 studies using 15 different reference datasets. In fact, it was difficult to find even two studies where the same references or methods had been used to determine nutritional intake and growth outcomes.

These differences make neonatal nutrition research challenging to interpret and meta-analysis difficult to perform. To address this issue, we developed an international standardisation checklist for neonatal nutrition research, the StRONNG checklist[1].

Barbara McCormack

1. Cormack BE, Embleton ND, van Goudoever JB, Hay WW, Jr., Bloomfield FH: Comparing apples with apples: it is time for standardized reporting of neonatal nutrition and growth studies. Pediatr Res 2016, 79(6):810-820.

LATE PREGNANCY MATERNAL SLEEP PRACTICES: A SURVEY IN A NEW ZEALAND MULTI-ETHNIC COMMUNITY

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An increased risk of stillbirth associated with maternal supine going-to-sleep position in late pregnancy was first reported by the 2011 Auckland Stillbirth Study, which demonstrated a two-fold increased risk for women who did not go to sleep on their left side. Two further studies have confirmed an increased risk of late stillbirth with supine sleep position. Going to-sleep position is modifiable, so if the association between stillbirth and late pregnancy sleep position is confirmed, this message is likely to be translated into a campaign advising women in late pregnancy to go-to-sleep on their side.

Our aim was to conduct a survey of self-reported late pregnancy going-to-sleep position and views about whether position could be changed. An ethnically-representative sample (n=377) between 28 and 42 weeks' gestation was surveyed in 2014 in South Auckland, the district with the highest rate of stillbirth in New Zealand. Factors independently associated with non-left side going-to-sleep position in late pregnancy were identified using multivariable logistic regression.

The women reported that their going-to-sleep position in the last week was left side (30%), right side (22%), supine (3%), either side (39%) and other (6%). A non-left going-to-sleep position was more likely to be reported by women of Maori (aOR 2.64 95% CI1.23-5.66) or Pacific (aOR 2.91 95% CI1.46-5.78) ethnicity compared to Asian women and those of European and other ethnicity; those with lower BMI and women who did not sleep on the left-hand side of the bed (aOR 3.29 95% CI 2.03-5.32). Maternal age, gestational age, living with a partner, and receiving advice on pregnancy sleep position from any source were not associated with non-left going-to-sleep position. Most (87%) non-left sleepers reported that they could change position to their left side, and the majority (94%) said they would have little or no difficulty changing, if this was recommended as being better for their baby.

We concluded that women's going-to-sleep position in late pregnancy appeared to be readily modifiable in this multi-ethnic sample, suggesting a public health intervention about optimal pregnancy sleep position is likely to be feasible in similar communities with an increased risk of stillbirth.

PERINATAL SOCIETY of Australia & New Zealand

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AUGUST 2016 NEWSLETTER

FETAL AND NEONATAL WORKSHOP OF AUSTRALIA AND NEW ZEALAND

30TH ANNUAL MEETING

The Fetal and Neonatal Workshop of Australia and New Zealand (FNWANZ) provides a forum for discussion of new ideas and presentation of experimental and clinical data in fetal and neonatal biology. It aims to encourage discussion and establish collaborations between basic scientists and researchers from all disciplines of perinatal science. The FNWANZ meetings consist of oral communications on completed studies, works in progress or planned studies

The 30th FNWANZ was held immediately preceding the 20th PSANZ congress, on Magnetic Island, 19-21 May 2016. It was a very special workshop as it was combined with a Festschrift in Honour of Emeritus Professor Richard Harding. Professor Harding was a Founding Convenor of the FNWANZ (established in 1985) and has also been an active member of PSANZ since its inception.

The 30th FNWANZ attracted 105 delegates and was fortunate to have a number of international keynote speakers participate including Prof Alan Bocking (Canada), Prof Abby Fowden (United Kingdom), Prof Gert Maritz (South Africa), Prof Peter Nathanielsz (USA) and Prof Dan Rurak (Canada).

A total of 57 oral presentations were given over the three days that included (but not limited to);

- developmental origins of health and disease (DOHaD)
- functional development of fetal and neonatal organ systems
- brain development
- brain injury and neuroprotection
- causes and consequences of preterm birth
- renal development and function
- placental development and function
- nutrition and neonatology
- effects of fetal and neonatal exposures

Take-home messages from the Workshop for PSANZ members

"We have developed a pumpless extracorporeal support system (ESS) has been developed in which extremely preterm fetal sheep (0.7 of gestation) were maintained for 25-28 days. The pumpless circuit, in which blood flow is driven exclusively by the fetal heart, closely mimics the normal fetal/placental circulation. The pumpless ESS system represents a potential strategy to avoid the pulmonary consequences of extreme prematurity and will provide new experimental insight into placental function"

Presenter: Dr Marcus Davey

"The immature diaphragm may be contributing to the development of respiratory failure in very preterm infants"

Presenter: Miss Zeena Al-Obaidi

"Preliminary behavioural and metabolic data suggest that the spiny mouse may not only be the first rodent to menstruate, but the first rodent to also undergo an analogous state to human pre-menstrual syndrome. Current trends show an increase in agitation and weight gain within the 24h preceding menstrual bleeding"

Presenter: Miss Nadia Bellofiore

"A pilot study conducted in non-human primates suggests that maternal dietary creatine is safe for the mother and fetus, and can reduce neonatal morbidity following an umbilical cord occlusion in late gestation. These studies will provide critical data on the safety and efficacy of dietary creatine supplementation in pregnant women, to inform a phase I clinical trial in the near future"

Presenter: Dr Stacey Ellery

"Delayed treatment either with cerebral hypothermia or with recombinant human erythropoietin after severe cerebral ischemia in term-equivalent fetal sheep was independently neuroprotective, but there was little evidence of additional benefit from combined treatment with hypothermia and erythropoietin. These data suggest that new strategies are needed to further improve outcomes after neonatal encephalopathy"

Presenter: Prof Alistair Gunn

"Fetal growth restricted lambs have an altered vascular structure and increased sensitivity to nitric oxide compared to appropriately grown lambs. Investigation and understanding of these mechanisms may provide a therapeutic benefit against cardiovascular dysfunction in FGR infants"

Presenter: Mr Ishmael Inocencio

"Early postnatal dexamethasone alters septation in the lungs of preterm lambs exposed antenatally to inflammation. Alterations in septation are yet to be defined as beneficial or disadvantageous, as groups remain blinded to the assessor"

Presenter: Miss Paris Papagianis

"Labour requires the development of synchronous behaviour in a population of myocytes and for this to occur connectivity mediated via gap junctions and prolonged depolarisations mediated by changes in potassium channels are required"

Presenter: Prof Roger Smith

"During fetal life the lung is highly expanded with fetal fluid which promotes lung growth, lung tissue thinning, alveolar formation and the type-I alveolar epithelial cell phenotype. With lung aeration at birth, the degree of lung expansion decreases due to the presence of surface tension. As a result, lung growth and alveolar formation slow and the type-II alveolar epithelial cell phenotype predominates. Infants that are born preterm miss the large increase in lung expansion that normally occurs prior to birth which likely contributes to a slowing of lung growth and alveolar development in these infants"

Presenter: Dr Megan Wallace

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"HYDROGEN SULPHIDE MAY BE AN IMPORTANT FACTOR IN PERINATAL CARDIOVASCULARCONTROL AND ITS ROLE REQUIRES FURTHER ELUCIDATION"

Presenter: Prof Ian Wright

CONGRATULATIONS TO THE WINNERS OF BEST ORAL PRESENTATION:

Hons/undergraduate Award
Ms Zeena Al-Obaidi
(presented by Dr Yoga Kandasamy)

Early PhD Award
Mr Mitchell Lock and
Ms Nadia Bellofiore
(presented by Dr Yoga Kandasamy)

Late PhD Award
Dr Emily Cohen and
Ms Sarah Walton
(presented by Prof John Bertram)

Early Career Researcher Award
Dr Stacey Ellery
(presented by Prof John Bertram)

INFORMATION DCOHG-PROJECT

Definition and Core Outcomes for Hyperemesis Gravidarum

CAN YOU HELP?

We are looking for your help to improve research on treatment options for hyperemesis gravidarum (severe nausea and vomiting in pregnancy).

WHY WE NEED YOUR OPINION

Hyperemesis gravidarum (HG) has significant consequences for maternal wellbeing, is associated with adverse birth outcomes and leads to major health care costs. Treatment options are symptomatic and hampered by the lack of effective, evidence-based options. One of the reasons for this lack of evidence is the use of a broad range of HG definitions and outcome measures. This makes it difficult to compare trial results. As a consequence, doctors may not know how to approach and treat HG patients. We believe an international consensus statement of all important stakeholders is needed. This consensus on HG definition and outcomes measured in trials would facilitate meta-analysis and implementation of trial results in guidelines, to ultimately improve care for women and their offspring.

Online survey We need your help!
We have produced an online survey according to the Delphi methodology. All important stakeholders, including researchers, obstetricians, patients, midwifes, general practitioners, dieticians and nurses are invited to participate in the process of item selection for inclusion in the HG definition and core outcome set. This selection process will take part over four survey rounds between June and September 2016. They all take no more than 10- 15 minutes of your time. If you would like to take part it is important that you complete all rounds.

VOLUNTARY PARTICIPATION

Your participation will be of great importance for the success of this project. We appreciate your input as it will be of great importance for the future of HG research. Your participation is voluntary and you can always withdraw from the study at any time. If you are a patient, your participation will not affect your healthcare.

CONFIDENTIALITY

All data gathered during this project will be handled with confidentiality and saved under code without your contact details. Only the Investigator has access to the data. The results of this study may be published as a scientific paper and if so, all data will be anonymized. Please contact us if you have any questions by email: hgresearch@amc.nl or telephone: (0031) (0)20 5668483.

Thank you for your help!
Kind regards,

On behalf of the DCOHG-project group: Prof. Tessa Roseboom, Dr. Rebecca Painter, Drs. Janneke van 't Hooft, Drs. Iris Grooten

This study is developed in line with the statements of the CoRe Outcomes in WomeN's health initiative (CROWN), and registered with the Core Outcome Measures and Effectiveness Trials initiative (COMET): http://www.comet-initiative.org/studies/details/805

Interested? Register at
>> http://hgresearch.limequery.com/index.php/817759?lang=en

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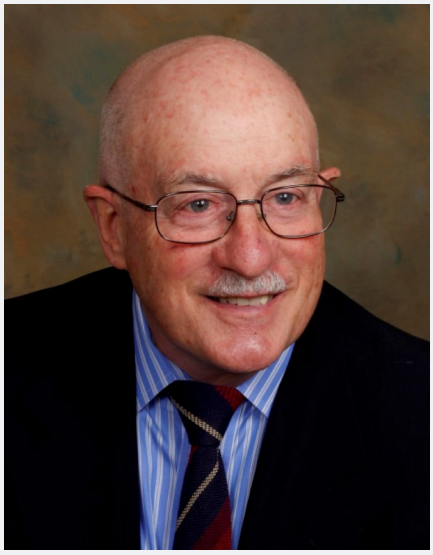

PSANZ WILL SADLY MISS...

JULIAN THOMAS "BILL" PARER

Doctor Julian Thomas "Bill" Parer died on the hillsides of Mt. Tamalpais on the evening of August 3, 2016, doing what he loved, hiking with his beloved Queensland Blue Heeler James. Bill was an avid outdoorsman, physician, researcher and family man, and he touched the lives of all those he encountered. He will be remembered for his quick and easy laugh, stubborn will, razor-sharp intellect and love of basic science. Bill was born in Melbourne, Australia, in 1934, the third of four boys, to Stan and Irene Parer. He obtained a Bachelor of Agricultural Science from Melbourne University and a Masters of Rural Science from the University of New England, Armidale, New South Wales, where he met the love of his life, Robin Parer.

When deciding to immigrate to America from Australia, Bill said he simply studied a map of the United States to determine the area with the most climbing peaks and applied to study there. Bill showed up in Oregon with only an ice axe, his backpack and Robin. He received a PhD from Oregon State University and an MD from the University of Washington in Seattle.

After completing his residency in obstetrics and gynecology at the University of Southern California Medical Center, Dr. Parer joined the faculty of the Department of Obstetrics, Gynecology and Reproductive Sciences at the University of California, San Francisco in 1974, as a perinatologist and as a researcher, reaching the rank of Professor. He was Fellowship Director of the Maternal-Fetal Medicine Fellows in the department, as well as Division Director of Perinatal Medicine and Biology for many years. His research focused on fetal heart rate monitoring, and he collaborated with investigators in Japan and Chile.

He cared for thousands of high risk pregnant women in the San Francisco Bay Area and beyond, many of whom were grateful for his specialized skills in intrauterine transfusion for the fetus, and in the placement of cervical sutures to prevent pregnancy loss. Dr. Parer was active in many professional societies, including the San Francisco Gynecological Society and the Pacific Coast Obstetrical and Gynecological Society, of which he was President in 2010.

He created and directed a continuing medical education course for 40 years on antepartum and intrapartum management, which attracted attendees from all over the United States. Bill continued to write, teach and practice obstetrics for 42 years until his death.

As his colleague Dr. Mary Norton wrote, "He represented the true academic spirit, and loved research, high quality clinical care, and education and training of our fellows, residents, and medical students". He continued to indulge in his passion for the outdoors, completing the final segment of the 140 mile long Larapinta trail in Central Australia with his nieces Catherine and Juliette just two weeks ago. To quote his nephew Benji, Bill has "now eschewed wings in favour of hiking all the way up to heaven".

Doctor Parer is survived by his wife, Robin, son Bud, daughter-in-law Karen, granddaughter Sinclaire, his three brothers, John, Michael and David, along with a large extended family, and his beloved dog James. -