Nutrition, chronic disease and the role of inflammation and the microbiome

A SYMPOSIUM

Tuesday 28 October 2014
9.30am – 5.30pm

South Australian Health & Medical Research Institute
Auditorium, North Terrace, Adelaide

Professor Berit Heitmann
Professor, Nutritional Epidemiology
University of Southern Denmark

Professor Charles Mackay
Centre for Immunology and Inflammation
Monash University
Charles Perkins Centre
The University of Sydney

Associate Professor Catherine Itsiopoulos
Department of Dietetics and Human Nutrition
La Trobe University

This symposium is hosted by the School of Population Health at the University of South Australia, and supported in part by a NHMRC Program Grant, and an APHCRl CRE Grant. With special thanks to the Sansom Institute for Health Research for hosting Professor Berit Heitmann’s seminar presentation.
<table>
<thead>
<tr>
<th>TIME</th>
<th>ACTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.00am-9.30am</td>
<td>Professional photographer— short photoshoot of guest speakers, hosts and chairs</td>
</tr>
<tr>
<td>9.30am-10.00am</td>
<td>Arrival and registration MORNING TEA</td>
</tr>
</tbody>
</table>
| 10.00am-10.10am | Welcome – Professor Robyn McDermott  
**Session 1 Chair: Professor Robyn McDermott** |
| 10.10am-11.10am | Speaker 1 – Professor Charles Mackay  
‘Diet, metabolites and inflammatory disease’ |
| 11.10am-11.40am | Speaker 2 – Associate Professor Geraint Rogers  
‘Microbial determinants of chronic respiratory disease’ |
| 11.40am-12noon | Panel discussion:  Professor Mackay & Associate Professor Rogers |
| 12noon-12.30pm | LUNCH (30mins)  
**Session 2 Chair: Dr Tom Wycherley** |
| 12.30pm-1.30pm | Speaker 3 – Professor Berit Heitmann  
The Sansom Institute for Health Research is pleased to host this Visiting Researcher Seminar  
‘Vitamin D during fetal life and long term health consequences - the D-tect study’ |
| 1.30pm-2.00pm | Speaker 4 – Associate Professor Catherine Itsiopoulos  
‘The anti-oxidant and anti-inflammatory potential of the Cretan Mediterranean Diet: Challenges and opportunities’ |
| 2.00pm-2.30pm | Speaker 5 – Dr Natalie Parletta  
‘Nutrition as a potential mediator of inflammatory response underlying depression and cardiovascular disease’ |
| 2.30pm-2.45pm | Panel discussion: Professor Heitmann, Associate Professor Itsiopoulos, Dr Parletta |
| 2.45pm-3.00pm | AFTERNOON TEA (15mins)  
**Session 3 Chair: Dr Katina D’Onise** |
| 3.00pm-3.45pm | Speaker 6 – Professor Alex Brown  
‘Understanding psychosocial pathways to cardiometabolic disease in Aboriginal Australians’ |
| 3.45pm-4.15pm | Speaker 7 – Professor Bob Gibson  
‘Omega-3 fats and inflammation’ |
| 4.15pm-4.45pm | Speaker 8 – Professor Maria Makrides  
‘Nutritional strategies to reduce childhood allergies’ |
| 4.45pm-5.00pm | Speaker 9 – Professor Robyn McDermott  
‘Bringing the body parts back together: Some insights for more effective chronic disease prevention’ |
| 5.00pm-5.15pm | Panel discussion: Professor Brown, Professor Gibson, Professor Makrides, Professor McDermott |
| 5.15pm-5.30pm | Close – Professor Robyn McDermott |
| 5.30pm-6.30pm | DRINKS AND NIBBLES (all welcome) |
| 7.00pm      | DINNER (invitation only – speakers, chairs and other VIP guests) |
Professor Kerin O’Dea AO  
Symposium Host  
Kerin O’Dea is Professor: Population Health and Nutrition at the University of South Australia. She is a nutrition scientist and public health researcher examining diet and lifestyle in the prevention and treatment of obesity, type 2 diabetes and cardiovascular diseases. She has a particular interest in the therapeutic potential of traditional diets – especially Aboriginal hunter-gatherer and Cretan Mediterranean. She has held numerous senior academic and research leadership positions over the past 25 years, including Director of the Menzies School of Health Research in Darwin (2000-2005), and has been active on key national committees advising government on health and medical research, Indigenous health, nutrition, and diabetes.

Professor Robyn McDermott  
Symposium Host and Chair of Session 1  
Robyn is Professor: Public Health in the School of Population Health at the University of South Australia and she also holds the position of Director of the Centre for Chronic Disease Prevention at James Cook University.

Robyn has worked as a consultant for WHO, AusAID, the World Bank and State and Commonwealth governments and others, in health services and public health. She has chaired National Health and Medical Research Council (NHMRC) Grant Review Panels for Projects, Fellowships and Capacity Building Grants and has had continuous NHMRC funding as lead investigator since 1998, totalling more than $12 million. Her work on improving diabetes care systems in remote far north Queensland resulted in major changes to policy and practice, and was recognised by the NHMRC as one of the “best 10” projects in 2006. Robyn’s research interests include the epidemiology of chronic disease and health transition, and how primary health care can improve outcomes in resource-poor settings. More recently her focus has been the effective translation of research evidence into clinical and public health practice, with attention to systems issues including funding models, policy environment, information systems, workforce development and quality improvement in primary care settings.
Professor Charles Mackay
Symposium Guest Speaker – Session 1

Professor Charles Mackay received his PhD in 1986 from the Department of Veterinary Pre-clinical Sciences, University of Melbourne. He was recruited to the Basel Institute for Immunology in 1987 where he continued his work on lymphocyte traffic, using the sheep as a model. After 7 years at Basel, Professor Mackay spent 7 years in the biotech industry, first at Leukocyte Inc., and then Millennium Pharmaceuticals. Professor Mackay spent 10 years at the Garvan Institute where he headed up the Immunology department. He now is a Professor at Monash University, located at Clayton Victoria and soon will be moving to the Charles Perkins Centre at The University of Sydney. Charles is a member of the Australian academy of Science, is a NHMRC Australia Fellow and is an ISI highly cited author.

Professor Mackay’s expertise is in cell migration and chemoattractant receptors for immune responses, and inflammation. Professor Mackay is an advocate of new hypothesis to explain many ‘western lifestyle’ diseases - that diet, gut microbes and their metabolites are responsible. This may underlie asthma, allergies, many autoimmune diseases, as well as diabetes, cardiovascular disease and cancers.

Associate Professor Geraint Rogers
Symposium Guest Speaker – Session 1

Geraint Rogers is a Group Leader within the South Australian Health and Medical Research Institute (SAHMRI) Infection and Immunity theme, Director of Microbiome Research, and Associate Professor within the Flinders University School of Medicine. Geraint’s research focuses on achieving a better understanding of the role played by the human microbiome in health and disease, investigating the relationships between the microbial communities and host physiology, and developing novel strategies to address infection and dysbiosis.
Dr Tom Wycherley
Chair – Session 2

Dr Tom Wycherley is a NHMRC Early Career Research Fellow at the University of South Australia, School of Population Health. He works closely with Professor Kerin O’Dea researching nutrition intervention strategies to improve weight status and cardiometabolic health. Dr Wycherley’s research focuses are on dietary protein and the nutrition of remote indigenous Australians.

Professor Berit Heitmann
Symposium Guest Speaker – Session 2

Professor Berit Heitmann defended her PhD thesis at the Department of Human Nutrition, Faculty of Life Sciences, University of Copenhagen, in February 1993. Between 1996-98 she was president of the Danish Association for the Study of Obesity. In 1999, she founded the Research Unit for Dietary Studies in Nutritional Epidemiology, made possible by a major grant from The Danish Medical Research Council.

Since 2001 she has been Director for Research, (and in 2011 and 2012 Acting Institute Director) of the Institute of Preventive Medicine, at the Bispebjerg and Frederiksberg Hospitals in Copenhagen and Professor in Nutritional Epidemiology at the National Institute of Public Health, University of Southern Denmark. In 2011 she was appointed Honorary Professor Sydney University at the Boden Institute of Obesity, Nutrition Exercise & Eating Disorders. From 2003 to 2008 she was a Board member of The Danish Medical Research Board, and between 2004 and 2008 a member of the Executive Committee of the Danish Medical Research Council. From 2004 to 2007 she was Deputy Chairman of the Board of Directors for the Danish Institute of Food and Veterinary Research.

Professor Heitmann’s main areas of expertise include dietary intake and the determinants and consequences of obesity, and within these areas she has supervised 30 PhD students (22 completions and 12 in progress) and about 50 pre-graduates. Professor Heitmann serves as referee for more than 30 scientific journals and is currently a member of the Editorial Boards for four international scientific journals. She has received in total around 35 million DKK from grants in the previous 5-6 years (about 4.5 million €), and has published about 220 scientific peer-reviewed papers, approximately 20 reviews and a similar number of book chapters.
ASSOCIATE PROFESSOR CATHERINE ITSIOPOULOS

Symposium Guest Speaker – Session 2

Associate Professor Catherine Itsiopoulos is the founding Head of Department and Associate Professor in Dietetics and Human Nutrition at La Trobe University. Catherine also holds the additional role of Associate Dean International with the Faculty of Health Sciences at La Trobe University. Previous roles include Head of School of Nutrition and Dietetics at the University of Canberra, Manager of Accreditation and Education Services at the Dietitians Association of Australia and Fellow of the CCRE in Diabetes at the University of Melbourne. Catherine is also an Adjunct Associate Professor at the University of Canberra and the University of Melbourne and has a senior academic appointment on the Australian Dietetics Council. Her academic, clinical research, health service management and dietetics career spans almost 30 years and she is recognised for her expertise in clinical trials utilising the Mediterranean diet.

Catherine’s major research interests include clinical intervention studies in diabetes, cardiovascular disease and the metabolic syndrome utilising the Mediterranean diet. Currently supervising 13 PhD students, 5 of them focussing on Mediterranean diet studies (traditional diet and culture of Greek migrants, secondary prevention of cardiovascular disease, reversal of fatty liver and the metabolic syndrome, and depression). Catherine has published widely in peer reviewed journals, and has recently published her first book titled ‘The Mediterranean Diet’ (Pan MacMillan, 2013), in which she reviews recent evidence on the health benefits of the Mediterranean diet and includes traditional recipes.

DR NATALIE PARLETTA

Symposium Guest Speaker – Session 2

Dr Natalie Parletta (formerly Sinn) is a Senior Research Fellow in the School of Population Health at the University of South Australia. She did her undergraduate Honours degree in Psychology followed by a PhD investigating the effects of omega-3 fatty acids and micronutrients on cognition and behaviour in children with ADHD.

Since then her research has investigated nutritional influences on mental health across the lifespan, and psychosocial/parental influences on children’s diets and obesity. Natalie is currently running interventions using Mediterranean-style diet principles combined with omega-3 supplementation in people who have mental illness, focussing on cardiometabolic and mental health outcomes, and is undertaking a Master of Dietetics.
Dr Katina D’Onise
Chair – Session 3

Dr Katina D’Onise is a Public Health Physician and Senior Research Fellow in the University of South Australia, School of Population Health. She is working with Professor Robyn McDermott on a Centre for Research Excellence project on primary health care management of chronic disease in Indigenous Australians in rural and remote areas. Dr D’Onise’s research interests include the epidemiology of chronic and infectious disease, early childhood development and disease processes that affect normal cognitive development.

Professor Alex Brown
Symposium Guest Speaker – Session 3

Professor Alex Brown is the Program Leader, Aboriginal Research at the South Australian Health and Medical Research Institute in Adelaide. Professor Brown is an Aboriginal doctor and researcher with extensive skills in Indigenous health research in rural and remote communities. He received his PhD in 2010, and in addition to his medical training has a MPH, FCSANZ and is an honorary fellow of the RACP.

He has established an extensive and unique research program focused on chronic disease in vulnerable communities, with a particular focus on outlining and overcoming health disparities.

He leads projects encompassing epidemiology, psychosocial determinants of chronic disease, mixed methods health services research in Aboriginal primary care and hospital settings, and randomised controlled trials of pharmacological and non-pharmacological chronic disease interventions. He has significant connections across the health system, policy environment and key government and NGO sector, particularly in relation to chronic disease burden and prevention. He sits on a range of national committees, including the Heart Foundation, chairs the Cardiac Society Indigenous Cardiovascular Council and was a member of the National Aboriginal and Torres Strait Islander Health Equality Council (2009-2012). Over the past five years he has been principal investigator on over $5 million of research and has extensive research collaborations with university, academic, primary care, Aboriginal community control services, international partners and Indigenous community partners.
Professor Robert Gibson
Symposium Guest Speaker – Session 3

Professor Gibson is a Senior NHMRC Research Fellow, and Professor, Food Science and Nutrition, School of Agriculture, Food and Wine, at the University of Adelaide.

Professor Gibson is a clinical biochemist/nutritionist who has published over 300 peer reviewed papers in a variety of paediatric, nutrition and biochemical journals. He has designed and conducted a range of randomised clinical trials involving nutrition interventions in the perinatal period. He has tested the effects of interventions with iron, selenium, probiotics, nucleotides and long chain polyunsaturated fatty acids (PUFA) on infant biochemistry, growth, physiology and developmental outcome. Professor Gibson was awarded the 2003 Nutrition Society of Australia, Research Medal and in 2004 was made a Fellow, Nutrition Society of Australia. In 2012 he was awarded the Alexander Leaf Distinguished Scientist Award for Lifetime Achievement.

In 2009 he established FOODplus Research Centre.
http://www.adelaide.edu.au/foodplus/

Professor Maria Makrides
Symposium Guest Speaker – Session 3

Maria Makrides is the Theme Leader for Healthy Mothers, Babies and Children at the South Australian Health and Medical Research Institute (SAHMRI); she is also the Director of Research for The University of Adelaide’s Women’s & Children’s Health Research Institute (WCHRI) based at the Women’s and Children’s Hospital.

As a research dietitian, Maria is committed to improving the nutrition and health of mothers and their babies through the conduct and translation of high quality research. She has over 200 peer reviewed publications including in the prestigious journals The Lancet, The Journal of the American Medical Association and the British Medical Journal. Maria’s group has conducted some of the key intervention trials involving fatty acid supplementation in perinatal nutrition, and has recently been recognised with a NHMRC Centre for Research Excellence in Foods for Future Australians.