# Developmental Origins of HEALTH AND DISEASE 9th WORLD CONGRESS 2015 CAPE TOWN SOUTH AFRICA

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### **MAIN PROGRAMME**

## SUNDAY 08 NOV

#### WELCOME CHAIR: Shane Norris

TIME	TITLE	SPEAKER	AFFILIATION
16H00	Welcome	Shane Norris	University of the Witwatersrand, SA
16H10	Origins of DOHaD	Mark Hanson	University of Southampton, UK
16H20	How is the 'memory' of early life events retained and how might it lead to disease?	Caroline Fall	University of Southampton, UK
16H30	Don't blame your mother	Matthew Gillman	Harvard University, USA
16H40	Pre-term birth prevention	John Newnham	University of Western Australia; Australia
17H50	Nutrition during the first 1000 Days	Francisco Mardones	Pontificia Universidad Católica de Chile, Chile
18H00	DOHaD and Global Health Policy	Peter Gluckman	University of Auckland, NZ
18H10	DOHaD and its relevance to African scientists	Shane Norris	University of the Witwatersrand, SA

18H00-19H00 | CAPE WINE & CHEESE WELCOME RECEPTION - Marimba band

DAY 1

PLEASE NOTE | This congress programme is subject to change & the poster-oral programme will be posted separately

## MONDAY 09 NOV

#### OPENING CHAIR: Lisa Micklesfield

TIME	NUMBER	TITLE	SPEAKER	AFFILIATION
08H30			African Truthsayer	
08H40			University of Cape Town Choir	
09H00		Welcome	Max Price	University of Cape Town, SA
09H10		DOHaD President Opening Address	Mark Hanson	University of Southampton, UK
09H30	5204	A global perspective on preventing noncommunicable diseases, childhood overweight and obesity and the relevance to DOHaD	Tim Armstrong	World Health Organisation
09H50		Prioritising pre-conception health in Malaysia	Datuk Dr Lokman Hakim Bin Sulaiman	Ministry of Health, Malaysia
10H10		DOHaD: From evidence to policy	Matthew Gillman	Harvard University, USA
10H40		9th World Congress of DOHaD	Shane Norris	University of the Witwatersrand, SA

11H00-11H30 | TEA/COFFEE BALLROOMS EAST & WEST

11H30-13H00 | BREAK-OUT SESSIONS I - Session 1 of 5

The pre-pregnancy period: Is it an opportunity to impact future pregnancy and offspring outcomes? CHAIR: Salome Kruger

TIME	NUMBER	τημε	SPEAKER	AFFILIATION
11H30		From intention to outcome: how pregnancy planning affects maternal and neonatal health in Malawi	Jennifer Hall	University College London, UK
11H50		Optimising adolescent health in South Africa to reduce transgenerational risk: Ntshembo Trial	Kathleen Kahn	University of the Witwatersrand, SA

12H05	4900	LifeLab: Teenagers' self-perceptions of health	Hannah Davey	University of Southampton, UK
12H15	5411	Implementing a pre-pregnancy lifestyle intervention to reduce the risk of diabetes in young adults: challenges and key learnings from Malaysia	Jutta Skau	University of the Witwatersrand, SA
12H25	4399	Optimal periconceptional folate status and human embryonic cerebellar growth trajectories	Irene Koning	ErasmusMC University Medical Centre, Netherlands
12H35	5350	Exposure to Maternal Obesity: Predictive-Adaptive Responses in Newborn White (WAT) and Brown (BAT) Adipose Tissue	Mina Desai	LABioMed at Harbor-UCLA Medical, USA
12H45		Q&A and Summary	Salome Kruger	North-West University, SA

11H30-13H00 | BREAK-OUT SESSIONS I - Session 2 of 5

#### DOHaD: Role of the placenta during pregnancy and microbiome during infancy

CHAIR: Deborah Sloboda

TIME	NUMBER	TITLE	SPEAKER	AFFILIATION
11H30		Gut microbiome, HIV-exposure, and vaccine immunogenicity in HIV-exposed African infants	Heather Jaspan	University of Cape Town, SA
11H45	5029	Differential Methylation/Hydroxymethylation of Genes in the Placenta with Maternal Adiposity: Role in Placental Function and Programming of Obesity	Leslie Myatt	University of Texas Health Science Center, USA
11H55	4917	Sexually dimorphic influence of first trimester phthalate and phenol exposure on gene regulation in human placenta	Alexandra M. Binder	Harvard Medical School, USA
12H05	5353	Paternal obesity: fetal and placental outcomes	Tatiane Aparecida Ribeiro	MacMaster University, Canada
12H15	5451	Maternal obesity alters placental gene expression in a sex-specific manner	Wajiha Gohir	MacMaster University, Canada
12H25	4633	Low maternal B12 associates with higher leptin in maternal adipose tissue, placental tissue and cord blood	Adaikala Antonysunil	University of Warwick, UK
12H35	4454	Cord blood levels of Placental Growth Factor; a novel biomarker for the identification of fetal growth restriction	Zoe Broere-Brown	Erasmus Medical Center, Netherlands
12H45		Q&A and Summary	Deborah Sloboda	MacMaster University, Canada

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#### 11H30-13H00 | BREAK-OUT SESSIONS I - Session 3 of 5

#### DOHaD and genetics and epigenetics: Are we there yet?

CHAIR: Keith Godfrey

TIME	NUMBER	τπιε	SPEAKER	AFFILIATION
11H30		Periconceptional nutrition and the offspring epigenome: Studies from The Gambia	Matt Silver	London School of Hygiene and Tropical Medicine, UK
11H50	4927	Exploring the Developmental Overnutrition hypothesis using Mendelian randomization in three birth cohorts	Rebecca Richmond	University of Bristol, UK
12H05	4921	Does genetic variation contribute to the architecture of gestational weight gain?	Nicole Warrington	University of Queensland, Australia
12H20	4506	Does maternal antenatal distress predict placental gene expression of 11-HSD2, MAO-A, NR3C1 and SLC6A4?	Lauren Capron	Imperial College London, UK
12H25	4622	Impact of paternal cholestasis on the sperm epigenome	Vanessa Patala	King's College London, UK
12H30	4431	The effect of dietary fat on age related changes on the liver DNA methylome across generations	Samual Hoile	University of Southampton, UK
12H35	4395	Common genetic variants and kidney outcomes in children and adults	Kozeta Miliku	Erasmus Medical Center, Netherlands
12H45		Q&A and Summary	Keith Godfrey	University of Southampton, UK

#### 11H30-13H00 | BREAK-OUT SESSIONS I - Session 4 of 5

### **DOHAD: Hot topics I** CHAIR: Sophie Moore

TIME	NUMBER	TITLE	SPEAKER	AFFILIATION
			Rihlat Said Mohamed	University of the Witwatersrand, SA
11H50	4628	Prenatal nutritional supplementation effects on fetal growth and birth outcomes in rural Gambia: the Early Nutrition and Immune Development trial	William Johnson	MRC Human Nutrition Research, UK
12H05	4600	Early-Onset Overweight after Maternal Obesity Increases Insulin, Intrinsic Renal Leptin Signaling and Metabolic Programming of the Kidney	Miguel Alejandre Alcazar	University of Cologne, Germany
12H15	4651	Counter-regulatory cytokine expression and preterm birth: a case-control study nested in a cohort study (BRISA Birth Cohort, Brazil)	Thais Pereira	Federal University of Maranhao, Brazil
12H20	4957	Maternal Obesity negatively impacts on fetal kidney development, maternal health and birth outcomes in an Indigenous Australian cohort	Kirsty Pringle	University of Newcastle, Australia

12H25	4705	Alcohol exposure during the periconceptional period programs renal dysfunction in aged female rats	Emily Dorey	University of Queensland, Australia
12H30	4948	Using donor eggs eliminates the risk of congenital heart defects after IVF/ICSI	Michael Davies	University of Adelaide, Australia
12H35	4406	Periconceptional maternal smoking reduces growth of the human embryonic head	Irene Koning	Erasmus Medical Center, Netherlands
12H45		Q&A and Summary	Sophie Moore	MRC Human Nutrition Research, UK

#### 11H30-13H00 | BREAK-OUT SESSIONS I - Session 5 of 5

#### Breastfeeding: Putting science into practice CHAIR: Jerry Covadia

TIME	NUMBER	TITLE	SPEAKER	AFFILIATION
11H30		Breastfeeding patterns, trends and consequences	Cesar Victora	Federal University of Pelotas, Brazil
11H50		Determinants of breastfeeding	Linda Richter	University of the Witwatersrand, SA
12H10		Research priorities to prevent obesity in children and adolescent	Nigel Rollins	World Health Organisation
12H30		Panel discussion	Jerry Covadia	University of the Witwatersrand, SA

#### 13H00-14H00 | LUNCH BALLROOMS EAST & WEST

Scientific writing				
Pearls of Wisdom: Getting your papers published	Jens Aagaard-Hansen	Steno Diabetes, Denmark		
Medical writing for dissemination	Taara Madhavan	Nutricia Reseach, Singapore		

13H00-14H00 | BAG LUNCH | ASSOCIATED DOHaD GROUPS MEETING

13H00-14H00 | BAG LUNCH | MEET THE MENTOR I

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#### 14H00-15H45 | BREAK-OUT SESSIONS II - Session 1 of 5

#### DOHaD and fetal, neonatal and infant growth standards CHAIR: Cesar Victora

TIME	NUMBER	TITLE	SPEAKER	AFFILIATION
14H00		International Fetal Growth Standards: Implications for clinical practice & DOHaD research	Stephen Kennedy	Oxford University, UK
14H20		New International Neonatal and Pre-term Phenotype Classification Standards: Implications for clinical practice and DOHaD research	Fernando Baros	Federal University of Pelotas, Brazil
14H35	4473	Prenatal markers of neonatal fat mass	Jorine Roelants	Erasmus Medical Center, Netherlands
14H45		Perinatal outcomes associated with maternal HIV infection	Joris Hemelaar	Oxford University, UK
14H55	4525	How to define fetal growth restriction? An observational study exploring clinical implications of misclassification.	Zoe Broere-Brown	Erasmus Medical Center, Netherlands
15H05	4977	What do we know about body composition in healthy infants?	Darren Dahly	University College Cork, Ireland
15H20	4658	Intrauterine Growth and Early Childhood Development: Evidence from the Sao Paulo Western Region Cohort	Alexandra Brentani	University of São Paulo, Brazil
15H30		Q&A and Summary	Cesar Victora	Federal University of Pelotas, Brazil

#### 14H00-15H45 | BREAK-OUT SESSIONS II - Session 2 of 5

#### Gestational diabetes and its impact CHAIR: Matthew Gilman

TIME	NUMBER	TITLE	SPEAKER	AFFILIATION
14H00		International Fetal Growth Standards: Implications for clinical practice & DOHaD research	Stephen Kennedy	Oxford University, UK
14H20		The Mom and Baby Dyad in the First Year: IINDIAGO Trial (Integrated INtervention for DIAbetes rlsk after GestatiOnal diabetes)	Dinky Levitt	University of Cape Town
14H35	4988	Pregnancy and postpartum islet beta-cell function in African women attending the Antenatal Clinic in the Charlotte Maxeke Johannesburg Academic hospital.	Marketta Toman	University of Witwatersrand, SA
14H45	5020	Role of prenatal factors and postnatal growth on insulin sensitivity and beta-cell function in Afro- Caribbean youth: Vulnerable Windows Cohort Study	Michael Boyne	The University of the West Indies, West Indies
14H55	4733	Human Fetal Kidney Volume in Pregnancies Complicated by Gestational Diabetes	John Bertram	Monash University, Australia



1 <i>5</i> H05	4653	"Thin-fat" fetal phenotype at 20 weeks of life in GDM pregnancies: Novel evidence from an Indian Cohort	Hema Vankataraman	University of Warwick, UK
15H15	4983	Fetal macrosomia and early childhood obesity- findings from the Growing Up in Ireland Cohort Study	Regien Biesma	Royal College of Surgeons, Ireland
15H25	4687	Ethnic Differences in Fetal Growth Patterns in GDM: Novel Data from the UK	Hema Vankataraman	University of Warwick, UK
15H35		Q&A and Summary	Matthew Gilman	Harvard University, USA

#### 14H00-15H45 | BREAK-OUT SESSIONS II - Session 3 of 5

#### Maternal ante- and post-natal depression and its impact CHAIR: Celia Hsiao

TIME	NUMBER	TITLE	SPEAKER	AFFILIATION
14H00		Maternal depression in pregnancy and the developing fetus	Paul Ramchandani	Imperial College, London, UK
14H20		Disaggregating the effects of maternal antenatal and postnatal depression on children	Alan Stein	Oxford University, UK
14H35		From pregnancy to primary school: A synthesis of results on the impact and mitigation of maternal depression on children's emotional and behavioural development in rural South Africa	Tamsen Rochet	Human Sciences Research Council, SA
14H50	4437	Associations of maternal and paternal depression and anxiety with offspring anxiety disorder at age 18 years	Lauren Capron	Imperial College London, UK
1 <i>5</i> H00	4497	Maternal dietary patterns and postpartum depression, a prospective study of 56,303 women in the Norwegian Mother and Child Cohort Study	Anne-Lisa Brantsaeter	Norwegian Institute of Public Health, Norway
15H10	4442	Maternal Depressive Symptoms During Pregnancy and the Risk of Childhood Obesity: a 15 Year Prospective Birth Cohort Study	De-kun Li	Kaiser Permanente, Division of Research
15H15	4499	Maternal pre-pregnancy obesity and maternal depressive symptoms 6 months after delivery	Satu Kumpulainen	University of Helsinki, Finland
15H20	4770	Ante- and post-partum depression among women living in Mumbai slums,	Meera Ghandi	Centre for the Study of Social change, India
15H30		Q&A and Summary	Celia Hsiao	Save the Children, SA

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#### 14H00-15H45 | BREAK-OUT SESSIONS II - Session 4 of 5

#### Programming of Infant neurological development and neuro-behaviour: Cutting edge science CHAIR: Linda Richter

TIME	NUMBER	TITLE	SPEAKER	AFFILIATION
14H00		Neurobehavioural Programming by Early Social Adversity: Pathology or Adaptation?	Barak Morgan	University of the Witwatersrand, SA
14H20		Thula Sana: The long term impact on child cognitive and socio-emotional functioning of an intervention in the first 1000 days to enhance the mother-infant relationship and improve infant attachment	Mark Tomlinson	University of Stellenbosch, SA
14H35	4964	Antenatal Maternal Mental Health Predicts Preschoolers' Neuronal Firing during an Executive Functioning Task	Anne Rifkin-Gabol	Singapore Institute for Clinical Sciences, Singapore
14H45	4815	Effect of early nutrition on later cognition: human milk nutrients at 3 months of age predict declarative memory abilities at 2 and 3 years of age	Carol Cheatham	University of North Carolina at Chapel Hill, USA
14H55	4717	Effects of iron and n-3 fatty acid supplementation, alone and in combination, on cognition and behavior in South African school children	Jeannine Baumgartner	North-West University, SA
15H05	4586	Maternal cortisol concentrations during pregnancy and newborn amygdala volume	Claudia Buss	Professor of Medical Psychology, Charite, Germany
15H15	5043	Markers of allostatic load associate with adverse pregnancy and offspring outcomes in rats	David Olson	University of Alberta, Canada
15H25	4509	Do maternal anxiety and mindfulness during pregnancy affect infant cognition and emotion? Results from a brain imaging study.	Bea R.H Van den Bergh	Tilburg University, the Netherlands
1 <i>5</i> H30	4500	Fatty fish intake during pregnancy and postpartum depression in the Norwegian Mother and Child Cohort Study	Alice Haugen	Norwegian Institute of Public Health, Norway
15H35		Q&A and Summary	Linda Richter	University of the Witwatersrand, SA

#### 14H00-15H45 | BREAK-OUT SESSIONS II - Session 5 of 5

#### Intergenerational epidemiology: First 1000 days before and after CHAIR: Andrew Prentice

TIME	NUMBER	τπιε	SPEAKER	AFFILIATION
14H00	4702	Overweight and obesity: lifecourse and multigenerational studies	Ilona Koupil	Stockholm University/Karolinska Institutet, Sweden
14H10	4154	Grandparents cardiovascular risk factor profiles are associated with grandchildren's anthropometric measures at age 5 and 9 years in the Lifeways Cross-Generation Cohort Study	Cecilly Kelleher	University College Dublin, Ireland
14H20	5351	Maternal Obesity Programs Offspring Hyperphagia via Enhanced Appetite and Reduced Anorexigenic Neurons	Mina Desai	LABioMed at Harbor-UCLA Medical, USA

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14H25	4411	Maternal trans fatty acid status in relation to birth outcomes in a multi-ethnic Asian population	Ling-Wei Chen	National University of Singapore, Singapore
14H30	4428	Maternal Retinal Vasculature Is Indicative For Subsequent Fetal Growth And Birth Size At Birth	Lingjun Li	Singapore National Eye Centre, Singapore
14H35	4449	BMI in early pregnancy is more important for fetal growth than metabolic factors in early pregnancy and longitudinal changes during pregnancy.	Marie Roland	Drammen Hospital, Norway
14H40	4490	Association between maternal mid-gestation vitamin D and offspring's abdominal adiposity	Mya-Thway Tint	National University of Singapore, Singapore
14H45	4523	Influence of maternal gestational hypertensive disorders on microvasculature in school-age children. The Generation R Study	Olta Gishti	Erasmus Medical Center, Netherlands
14H50	4527	Maternal polyunsaturated fatty acid levels during pregnancy and childhood adiposity	Aleksandra Jelena Vidakovic	Erasmus Medical Center, Netherlands
15H00	4530	The relation between anemia in different trimesters and changes in the placental vascularization, Northeastern Tanzania	Sofie Moller	University of Copenhagen, Denmark
15H05	4528	Dynamics of second trimester anaemia with foetal growth and birth outcome in a longitudinal study in Tanzania	Christentze Smiegelow	University of Copenhagen, Denmark
15H15	4579	Dissecting the relationship between depression and adiposity in young adult offspring: the Western Australian Pregnancy Cohort (Raine) Study	Sunhil Bhat	University of Western Australia, Australia
15H25		Q&A and summary	Andrew Prentice	London School of Hygeine and Tropical Medicine, UK

15H45-16H15 | TEA/COFFEE BALLROOMS EAST & WEST

#### 16H15-17H45 | PLENARY I

#### Survive and Thrive: Optimising Child Growth CHAIR: John Pettifor

TIME	TITLE	SPEAKER	AFFILIATION
16H15	The relationship between pre-natal and post-natal growth	Noel Cameron	Loughborough University, UK
16H35	Maternal circulating nutrients and ethnic differences in body composition at birth	Deborah Lawlor	University of Bristol, UK
16H55	Childhood growth in height and adult disease – a distinct developmental trajectory	David Dunger	Cambridge University, UK
17H15	Growth recovery in adolescence: how much is possible and does it matter?	Aryeh Stein	Emory University; USA
17H35	Q&A and summary	John Pettifor	University of the Witwatersrand, SA



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#### 18H00-19H00 | SPECIAL EVENTS SESSIONS - Session 1 of 3 - AFRICAN NUTRITION LEADERSHIP PROGRAMME

#### Unravelling the DNA of Leadership: Panel discussion CHAIR: Jane Badham

TIME	TITLE	PANEL MEMBER	AFFILIATION
18H00	Introductory remarks	Chantell Witten	North-West University, SA
		Namukolo Covic	International Food Policy Research Institute, Ethiopia
		Klaus Kraemer	Sight and Life, Switzerland
		Andrew Prentice	MRC Unit The Gambia
		Parul Christian	Johns Hopkins Bloomberg School of Public Health, SA

#### 18H00-19H00 | SPECIAL EVENTS SESSIONS - Session 2 of 3

#### Nutrition during the first 1000 days

CHAIR: Manfred Eggersdorfer

TIME	TILE	SPEAKER	AFFILIATION
18H00	Multiple micronutrient needs and interventions in pregnancy: Impact and outcomes	Keith West	University of Toronto, Canada
18H20	The role of long-chain polyunsaturated fatty acids in pregnancy, lactation and infancy	Henkjan Verkade	University Groningen, Netherlands
18H40	Developmental origin of hypertension from a nutrition and kidney perspective	Weiguo Zhang	DSM Nutrition Science

#### 18H00-19H00 | SPECIAL EVENTS SESSIONS - Session 3 of 3

#### Approaches to improving DOHaD Health Literacy CHAIR: Mark Hanson

TIME	NUMBER	TITLE	SPEAKER	AFFILIATION
18H00		Maternal health and nutritional status: the gap between recommendations and reality	Eline Van Der Beek	Danone Nutricia Research
18H20		Health literacy before and after pregnancy	Regien Biesma	Royal College of Surgeons, Ireland
18H40	5144	Characterising Public Understanding of DOHaD to Inform Communication Strategies	Jacquie Bay	University of Aukland, NZ

#### 19H00-19H30 | COCKTAIL FUNCTION - All welcome

### TUESDAY **10 NOV**

#### 07H25-08H25 | DOHaD COUNCIL MEETING

#### 08H30-10H00 | PLENARY II

Early life nutrition: A major determinant of long-term health CHAIR: Susan Prescott

TIME	TITLE	SPEAKER	AFFILIATION
08H30	Early nutrition in programing of immune health	Susan Prescott	University of Western Australia, Australia
08H55	Impact of protein intake on long-term health	Atul Singhal	University College London, UK
09H20	Does complementary feeding contribute to metabolic programming?	Ferdinand Haschke	University of Vienna, Austria
09H45	Q&A and summary	Susan Prescott	University of Western Australia, Australia

#### 10H00-10H30 | TEA/COFFEE BALLROOMS EAST & WEST

#### 10H30-12H30 | BREAK-OUT SESSIONS III - Session 1 of 5

#### Early life factors and growth, obesity and diabetes

CHAIR: Dinky Levitt

TIME	NUMBER	τπιε	SPEAKER	AFFILIATION
10H30		Defects in pancreatic beta cell mass establishment and Type 2 Diabetes later in life	Maureen Gannon	Vanderbilt University Medical Center, USA
10H45	4655	First Trimester Prediction of GDM using maternal characteristics: Scope for improvement? Preliminary Results from the PRiDE study	Hema Vankataraman	University of Warwick, UK
10H55	4672	Maternal lipids and hormones concentration throughout pregnancy and birth weight: a prospective cohort	Dayana Rodrigues Farais	University of São Paulo, Brazil
11H05	4557	Fetal liver blood flow in mid-gestation is prospectively associated with newborn adiposity.	Satoru Ikenoue	University of California, USA
11H15	4801	Premature weaning impairs beta cell regeneration later in life	Miri Stolovich-Rain	Hebrew University of Jerusalem, Israel

4551	Maternal flaxseed oil supplementation during lactation programs adipose tissue inflammation in male adult rats but not in females	Egberto Gasper de Moura	State University of Rio de Janeiro, Brazil
4596	Short chain fatty acids in human milk influence infancy anthropometry outcomes	Philippa Prentice	University of Cambridge, UK
4630	The effect of exclusive breastfeeding on growth in rural Gambian infants: Data from the ENID trial (ISRCTN49285450)	Kamilla Eriksen	MRC Human Nutrition Research, UK
4677	To what extent do secular trends toward obesogenic infant growth trajectories reflect changes in feeding practices in American Samoa?	Nicola Hawley	Yale University, USA
4862	Birth socio-economic status (SES) is more strongly associated with BMI/body fat than changing SES birth to 16 years in South African adolescents	Paula Griffiths	Loughborough University, UK
	Q&A and summary	Dinky Levitt	University of Cape Town, SA

#### 10H30-12H30 | BREAK-OUT SESSIONS III - Session 2 of 5

#### Early life factors and cardiovascular disease

CHAIR: Stephen Tollman

11H25

11H35 11H45

11H55

12H05

12H15

TIME	NUMBER	τπιε	SPEAKER	AFFILIATION
10H30		Associations between fetal growth and the metabolic syndrome during childhood in Chile	Francisco Mardones	Pontificia Universidad Católica de Chile, Chile
10H45	5409	Early Life Growth and Blood Pressure across the Life-course in urban South Africa: Birth to Twenty Plus Cohort	Juliana Kagura	University of the Witwatersrand, SA
10H55	4408	Fetal growth restriction induces different cardiac phenotypes	Merida Rodriguez-Lopez	Universitat de Barcelona, Spain
11H05	4415	Effect of infant weight, length and adiposity gains during early childhood with blood pressure at 36-	Izzudin Aris	Singapore Institute for Clinical Sciences, Singapore
11H15	4366	The association of perinatal growth with energy intake and satiety response at 5-6 years of age; The ABCD study.	Arend van Deutekom	VU medical center, Netherlands
11H25	4489	Vascular dysfunction in offspring born from dams of advanced maternal age	Jude Morton	University of Alberta, Canada
11H35	4544	Sexual Dimorphism in Fetal Cardiac Growth Response to Intrauterine Growth Restriction (IUGR)	Alina Maloyan	University of Texas Health Science Center, USA
11H45	4635	Cesarean section as an independent risk factor for hypertension among young adults	Heloisa Bettiol	University of Sao Paulo, Brazil
11H55	4710	The effect of prenatal hypoxia and a postnatal high-salt diet on microvascular structure and function	Karin Moritz	University of Queensland, Australia
12H00	4965	Maternal early pregnancy lipid profile and offspring's lipids and glycaemic control at age 5-6 years: the ABCD study	Adriëtte Oostvogels	Academic Medical Centre, Amsterdam, Netherlands
12H05	4752	Association between in utero HIV and ART exposure and assessment of vascular damage in infancy: a feasibility study	Verena Schrier	Julius Center, UMC Utrecht, Netherlands
12H10	5013	Aortic, coronary and carotid dimensions, intima media thickness and stiffness in 6-year-old children	Lilly-Ann Mohikert	Karolinska Institutet, Sweden
12H15		Q&A and summary	Stephen Tollman	University of the Witwatersrand, SA



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#### 10H30-12H30 | BREAK-OUT SESSIONS III - Session 3 of 5

#### Early life exposures and later outcomes CHAIR: Aryeh Stein

TIME	NUMBER	TITLE	SPEAKER	AFFILIATION
10H30	4452	Trajectories of early development and adult intelligence.	Trine Flensborg-Madsen	University of Copenhagen, Denmark
10H45	5414	Exclusive breastfeeding, HIV exposure, and development at primary school-age in a large, rural, cohort in South Africa	Ruth Bland	Africa Centre, SA
11H00	5410	Long-term Effects of Acute Malnutrition on Growth, Body Composition and Function	Natasha Lelijveld	IGH, University College London
11H10	4969	Perinatal methylation of the serotonin transporter SLC6A4 is a predictor of childhood adiposity	Karen Lillycrop	University of Southampton, UK
11H20	4939	Maternal dietary supplementation with canola oil during lactation delays the loss of uncoupling protein 1 in the offspring's adipose tissue	Rachel Woods	University of Nottingham, UK
11H30	4958	Growth trajectories in early childhood, their relationship with antenatal and postnatal factors, and devevelopment of obesity by age 9 years	Lynne Giles	University of Adelaide, Australia
11H40	4955	Association between linear growth and fat and lean tissue gain during childhood and cardiometabolic outcomes in Indian adolescents	Ghattu Krishnaveni	CSI Holdsworth Memorial Hospital, India
11H50	4952	Stunting at 18 years is predicted by femur length in utero: Pune Maternal Nutrition Study (PMNS)	Suyog Joshi	King Edward Memorial Hospital Research Centre, India
12H00	4949	Components of height and the intergenerational change in height as predictors of body composition and cardiovascular risk in young Indian adults	Kalyanaramen Kumaran	University of Southampton, India
12H10	4937	Comparison of mother-child versus father-child associations for cardiometabolic risk: New Delhi Birth Cohort, India	Poornima Prabhakaran	Public Health Foundation of India, India
12H20		Q&A and summary	Aryeh Stein	Emory University, USA

#### 10H30-12H30 | BREAK-OUT SESSIONS III - Session 4 of 5

#### Early life exposures and bone health and body composition CHAIR: John Pettifor

TIME	NUMBER	TITLE	SPEAKER	AFFILIATION
10H30		Maternal vitamin D supplementation and childhood skeletal health	Cyrus Cooper	University of Southampton, UK
10H45		Early life predictors of adult bone size and strength: Bone Health Cohort	Lisa Micklesfield	University of the Witwatersrand, SA
11H00	4712	Periconceptional alcohol exposure contributes to increased adiposity in male offspring	Karen Moritz	University of Queensland, Australia

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11H10	4654	Maternal Docosahexaenoic Acid (DHA) Supplementation and Body Composition at Age 5 Years	Susan Carlson	University of Kansas Medical Center, USA
11H20	4887	Duration of sleep at 3 years of age is associated with lean and fat mass at 4 years of age: the Southampton Women's Survey	Janis Baird	University of Southampton, UK
11H30	5025	Low B-vitamin status during pregnancy is associated with greater offspring adiposity in childhood	Caroline Childs	University of Southampton, UK
11H40	4867	A DRD4 Gene by Maternal Sensitivity Interaction Predicts Risk for Overweight or Obesity in Two Independent Cohorts of Pre-School Children .	Robert Levitan	University of Toronto, Canada
11H50	4882	The lipid class cross-talk during dietary fat metabolism in breast-fed infants	Albert Koulman	MRC Human Nutrition Research, UK
12H00	4364	The Association of Birth weight and Infant growth with Energy Balance-Related Behavior. A Systematic Review and Best-evidence Synthesis of Human Data	Arend van Deutekom	VU medical center, Netherlands
12H10	4979	Ethnic differences in adolescent male skeletal growth persist after adjustment for maturational timing	Simon Schoenbuchner	MRC Human Nutrition Research, UK
12H20		Q&A and summary	John Pettifor	University of the Witwatersrand, SA

#### 10H30-12H30 | BREAK-OUT SESSIONS III - Session 5 of 5

#### Early life exposures and disease CHAIR: Nancy Potischman

TIME	NUMBER	τπιε	SPEAKER	AFFILIATION
10h30	4407	Benzyl Butyl Phthalate (BBP) - foe or friend? An Epigenetic View	Mahua Choudhury	Texas A & M University, USA
10h45	4534	NIH efforts to advance research focused on early life factors and cancer development	Somdat Mahabir	National Cancer Institute, NIH, USA
11h00	4394	First trimester maternal protein intake and childhood kidney outcomes. The Generation R Study	Kozeta Miliku	Erasmus MC, Netherlands
11h10	4341	Maternal nutrient intake during pregnancy and asthma risk in offspring over a 10 year period	Karien Viljoen	University College Dublin, Ireland
11h20	4412	Maternal plasma PUFA status during pregnancy and trajectory of postnatal growth in children from the GUSTO cohort	Jonathan Bernard	Singapore Institute for Clinical Sciences, Singapore
11h30	4588	Does fish oil supplementation in late pregnancy prevent offspring asthma? Experience from a Danish randomized controlled trial with 25 years of follow-up	Claudia Buss	Statens Serum Institut, Denmark
11h40	5415	Growth in 7-11 year old HIV-exposed and unexposed children in rural South Africa	Brian Houle	The Australian National University, Australia
11h50	4819	Effect of Preterm birth and intrauterine life on adulthood lung function: A clinical follow-up of births (1985-89) in Finland	Pieta Nasanen-Gilmore	National Institute for Health and Welfare, Finland
12h00	4865	Cardiometabolic and Pulmonary Outcomes among Children Exposed to the World Trade	Leonardo Trasende	NYU School of Medicine, USA

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12h10	4723	Mother's weight gain in pregnancy is related to daughters being overweight 40 years later.	Lauren Houghton	Columbia University, USA
12h20		Q&A and summary	Nancy Potischman	NIH, USA

12H30-13H30 | LUNCH BALLROOMS EAST & WEST

**Grant writing** 

тпце	SPEAKER	AFFILIATION
Formula for successful grant applications	Stephen Tollman	University of the Witwatersrand, SA
Formula for successful grant applications	Aryeh Stein	Emory University, USA

12H30-13H30 | BAG LUNCH | AUSTRALIA & NEW ZEALAND DOHaD AFFILIATE ASSOCIATION MEETING

12H30-13H30 | BAG LUNCH | CANADIAN DOHaD AFFILIATE ASSOCIATION MEETING

#### 13H30-15H00 | BREAK-OUT SESSIONS IV - Session 1 of 5

Methodological challenges for DOHaD studies

CHAIR: Darren Dahly

TIME	NUMBER	τπιε	SPEAKER	AFFILIATION
13H30		Translating DOHaD biological concepts into statistical models for cohort studies	Linda Adair	University of North Carolina at Chapel Hill, USA
13H55	4847	Does Fetal Growth Restriction Cause Later Obesity? Pitfalls in Analyzing Mediators as Confounders	Michael Kramer	McGill University, Canada
14H20	4721	Inappropriate adjustment for mediators in analyses exploring the relationship between birth weight and blood pressure in later life: A systematic review and meta-analysis	George Ellison	Leeds University, UK
14H45		Q&A and summary	Darren Dahly	University College Cork, Ireland

#### 13H30-15H00 | BREAK-OUT SESSIONS IV - Session 2 of 5

#### Nutrition transition in migrating populations

CHAIR: Atul Singhal

TIME	NUMBER	TITLE	SPEAKER	AFFILIATION
13H30		Nutritional changes across the life course in Australian Aboriginal birth cohort study	Sue Sayers	Menzies School of Health Research, Darwin Australia
13H55		Metabolic effects of erratic eating - Lessons from animal models and 'Wa kai – time to eat' study in Maori children	Anne Jaquiery	Liggins institute, Auckland
14H20		Effect of Body size and shape on development of Chronic kidney disease in Aboriginal people	Wendy Hoy	University of Queensland
14H45		Q&A and summary	Atul Singhal	University College London, UK

#### 13H30-15H00 | BREAK-OUT SESSIONS IV - Session 3 of 5

#### DOHaD and translating public health nutrition policy into action: Reaching the hard to reach CHAIR: Mark Hanson

TIME	NUMBER	TITLE	SPEAKER	AFFILIATION
13H30		Investing in young women's diet and nutritional status: addressing the developmental origins of he alth	Cyrus Cooper	University of Southampton, UK
13H50		Development of a cross- national measure of pregnancy intention for non-pregnant women: formative research in Botswana	Judith Stephenson	University College London, UK
14H10		Maximising the potential of existing services to engage and support young women to improve their diets and lifestyles	Mary Barker	University of Southampton, UK
14H25		A participatory approach to community health promotion	Bjarne Jensen	Steno Diabetes Centre, Denmak
14H40		Panel discussion	Mark Hanson	University of Southampton, UK

#### 13H30-15H00 | BREAK-OUT SESSIONS IV - Session 4 of 5

**DOHAD and nutrition: Are we doing enough to improve birth and long-term outcomes through maternal nutrition?** CHAIR: Jane Badham

TIME	NUMBER	ΤΠLΕ	SPEAKER	AFFILIATION
13H30		Maternal nutritional status and micronutrient deficiencies : Impact of interventions on birth outcomes and long term consequences	Parul Christian	Johns Hopkins Bloomberg School of Public Health
14H00		Can what a mother eats at the time of conception influence the epigenome of her child? A review of potential nutrition-epigenetic pathways and latest studies from The Gambia	Philip James	London School of Hygiene and Tropical Medicine, UK

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14H20	Policy and programme implications for multiple micronutrients in pregnancy: Where do we stand and where should we be going?	Klaus Kraemer	Sight and Life, Switzerland
14H30	Panel discussion	Jane Badham	Sight and Life, SA

#### 13H30-15H00 | BREAK-OUT SESSIONS IV - Session 5 of 5

#### Lifecourse economics CHAIR: Caroline Fall

TIME	NUMBER	TITLE	SPEAKER	AFFILIATION
13H30	5404	Best buys in the First 1000 Days for South Africa	Karen Hofman	University of the Witwatersrand, SA
13H55	5408	Returns to early life interventions: Are they still high when other things are not equal?	Chris Desmond	Human Sciecnes Research Council, SA
14H20		Childhood exposures and adult human capital: Modeling the potential impact of health interventions in sub-Saharan Africa	Nicole Ford	Emory University, USA
14H45		Q&A and summary	Caroline Fall	University of Southampton, UK

#### 15H00-15H30 | TEA/COFFEE BALLROOMS EAST & WEST

#### 17H30-17H00 | PLENARY III

### Childhood obesity CHAIR: Linda Adair

TIME	TITLE	SPEAKER	AFFILIATION
15H30	The prevention of childhood obesity; understanding the interplay of lifecourse biology and trans-generational environments	Peter Gluckman	University of Auckland, NZ
15H55	TBC	Nigel Rollins	World Health Organisation
16H20	Growing up in Africa and its implications for childhood obesity	Shane Norris	University of the Witwatersrand, SA
16H45	Q&A and summary	Linda Adair	University of North Carolina at Chapel Hill, USA

#### 17H00-18H00 | DOHaD SOCIETY ANNUAL GENERAL MEETING & MANIFESTO

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### WEDNESDAY 11 NOV

#### 17H30-17H00 | PLENARY IV

#### **DOHaD** interventions

TIME	TITLE	SPEAKER	AFFILIATION
08H30	So you think you can do a pre-conceptional study? What we learned from the Mumbai 'Samosa' Trial	Caroline Fall	University of Southampton, UK
08H55	Antenatal nutritional interventions and offspring health in undernourished settings	Sophie Moore MRC UK	MRC Human Nutrition Research, UK
09H20	Effectiveness of personalized home-based nutritional counselling on breastfeeding practices and child nutrition outcomes in Nairobi slums	Elizabeth Kimani- Murage	African Population Health Research Centre; Kenya
09H45	Q&A and summary	Vicki Lambert	University of Cape Town, SA

#### 10H00-10H30 | TEA/COFFEE BALLROOMS EAST & WEST

#### 10H30-12H30 | BREAK-OUT SESSIONS V - Session 1 of 5

#### DOHaD: Hot topics II

CHAIR: Andrea Sharma

TIME	NUMBER	ΤΠLΕ	SPEAKER	AFFILIATION
10H30	5403	Lifecourse evolution of diabetes related phenotypes in Indians: Pune Studies	Chittaranjan Yajnik	KEM Hospital Research Centre, Pune, India
10H50	4416	Short stature in black South African adults and cardiometabolic risk: evidence from adults of Sotho descent	Salome Kruger	North-West University,South Africa
11H05	4966	Maternal caffeine intake during pregnancy, early growth and body fat distribution at school-age. The Generation R Study	Ellis Voerman	Erasmus MC, University Medical Center, Netherlands
11H15	4393	Effect of postnatal nutrition on cardiovascular remodeling induced by fetal growth restriction.	Merida Rodriguez-Lopez	Universitat de Barcelona,España
11H25	4369	Sex differences in the association between foetal growth and child attention at age four: specific vulnerability of girls	Elizabeth Murray	University of Oxford,United Kingdom

11H35	4477	Maternal Mid-Pregnancy Trans Fatty Acids and Pregnancy Outcomes	Nina van Mil	Netherlands
11H40	5105	Large fetuses of obese woman show higher plasma levels of adiponectin, express adiponectin receptor 1 and show an inactive enos in human umbilical artery endothelial cells	Estefanía Muñoz	Universidad de Chile, Chile
11H45	4674	Leisure-time physical activity in young adults born preterm The ESTER Study	Marjaana Tikanmaki	National Institute for Health and Welfare, Suomi
11H55	4815	Effect of early nutrition on later cognition: human milk nutrients at 3 months of age predict declarative memory abilities at 2 and 3 years of age	Carol Cheatham	University of North Carolina at Chapel Hill, USA
12H05		Q&A and summary	Andrea Sharma	CDC, USA

10H30-12H30 | BREAK-OUT SESSIONS V - Session 2 of 5

#### Adolescence: Another critical window of opportunity to improve health?

CHAIR: Kathleen Kahn

TIME	NUMBER	TITLE	SPEAKER	AFFILIATION
10H30		Puberty timing: a new milestone in the developmental trajectory to adult disease	Ken Ong	University of Cambridge, UK
10H50	4890	Intergenerational change in anthropometry of children and adolescents in New Delhi Birth Cohort, India	Sikha Sinna	Sitaram Bhartia Institute of Science and Research,India
11H05	4767	Longitudinal Associations between affective problems and eating disturbances in South African adolescents	Celia Hsiao	Save the Children SA
11H15	4724	Maternal pregnancy factors and menarche in girls with a family history of breast cancer: The Legacy Girls Study	Lauren Houghton	Columbia University, USA
11H25	4951	Does change in components of childhood height influence cardiovascular risk and cognitive function in indian adolescents?	Kalanaraman Kumaran	University of Southampton, India
11H35	4959	Birth weight, postnatal weight gain and cortisol responses to stress in Indian adolescents	Ghattu Krishnaveni	CSI Holdsworth Memorial Hospital, India
11H45	4972	The association of childhood growth trajectories with left ventricular mass and left atrial size in adolescence	Laura Howe	University of Bristol, UK
11H55	4429	Prenatal exposure to maternal anxiety is associated with DNA methylation signatures in adolescence	Mina Park	University of British Columbia, Canada
12H05		Q&A and summary	Kathleen Kahn	University of the Witwatersrand, SA

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#### 10H30-12H30 | BREAK-OUT SESSIONS V - Session 3 of 5

#### Healthy ageing starts early

CHAIR: Krisela Steyn

TIME	NUMBER	τημε	SPEAKER	AFFILIATION
10H30	4989	Early-life adversity and healthy ageing	Emma Anderson	University of Bristol, UK
10H50	4722	The health in later life of Channel Islanders exposed to the 1940-45 German occupation and siege	George Ellison	Leeds University, UK
11H10	4703	Early life determinants of mortality in a cohort of 12,564 men and women born in Uppsala 1915-1929	Ilona Koupil	Stockholm University/Karolinska Institutet,Sweden
11H25	4401	Gender differences of age-related morbidity and mortality: on the way to ontopathogenic model	Viktor Goudochnikov	Independent researcher, Brazil
11H40	4430	Increased dietary fat across generations leads to loss of metabolic homeostasis with ageing and an aged transcriptome in young adults	Samual Hoile	University of Southampton, UK
11H55	4785	Understanding the inter-connection between body image, socio-demography and the development of obesity across lifespan in South Africa: SANHANES I	Zandile Mchiza	Human Sciences Research Council, SA
12H10		Q&A and summary	Krisela Steyn	Unviersity of Cape Town, SA

#### 10H30-12H30 | BREAK-OUT SESSIONS V - Session 4 of 5

#### Intergenerational effects: Research & trials

CHAIR: Michael Ross

TIME	NUMBER	TITLE	SPEAKER	AFFILIATION
10H30	4532	The UPBEAT trial. A Complex Intervention of Diet and Physical Activity in 1555 Obese Pregnant Women.	Lucilla Poston	Kings College London, UK
10H50		Maternal obesity and weight gain on childhood outcomes: meta-analysis using data from over cohorts	Vincent Jaddoe	Erasmus Medical Centre, Netherlands
11H10	4445	M-Health improves fertility and (pre)pregnancy lifestyle behaviors in couples.	Matthijs Van Dijk	Erasmus Medical Centre, Netherlands
11H20	4938	Combatting the Transgenerational risk of Non-communicable diseases in Transitioning societies: from evidence to action with Case studies from India	Poornima Prabhakaran	Public Health Foundation of India
11H30	4464	Effect of a prenatal lifestyle intervention on infant size up to 1 year of age: results of the Norwegian Fit for Delivery randomized controlled trial	Linda Sagedal	Sørlandet Hospital, Norway
11H40	4631	The Role of Food Security on Nutritional Status and health during Critical Periods of Growth and Development	David Himmelgreen	Unversity of South Florida, USA

11H50	4976	A review of maternal, neonatal, infant and child health interventions within the first 1000 days of life:What can South Africa learn from other countries?	Nazia Peer	Health Systems Trust, SA
12H00	4936	Vascular and metabolic studies in children whose fathers had premature cardiovascular disease.	Alan Macken	National Children's Research Centre, Ireland
12H10		Q&A and summary	Michael Ross	Geffen School of Medicine at UCLA, USA

#### 10H30-12H30 | BREAK-OUT SESSIONS V - Session 5 of 5

#### Translation of DOHaD: Partnerships, policy and practice CHAIR: Peter Gluckman

TIME	NUMBER	TITLE	SPEAKER	AFFILIATION
10H30	4679	Epigenetic programming, respect for autonomy and intergenerational justice: a new ethical battleground in connection with the fight against obesity	Lyne Letourneau	University of Quebec, Canada
10H50		Public-Private Partnerships in NCD prevention	Charlotte Ersbøll	Novo Nordisk, DM
11H10		Public health programs for NCD prevention in Malaysia	Feisul Idzwan Mustaph	Ministry of Health, Malaysia
11H30		Incentivising health change: is it effective?	Craig Nossel	Discovery Health, SA
11H50		Q&A Summary	Peter Gluckman	University of Auckland, NZ

#### 12H30-13H30 | LUNCH BALLROOMS EAST & WEST

#### 12H30-13H30 | BAG LUNCH | MEET THE MENTOR III

Navigating an academic career		
тпте	SPEAKER	AFFILIATION
Navigating a career as a clinical scientist	Caroline Fall	University of Southampton, UK
Navigating a career as a scientist in a low- or middle-income country	Elizabeth Kimane- Murage	African Population Health Research Centre; Kenya

12H30-13H30 | BAG LUNCH | JOURNAL OF DEVELOPMENTAL ORIGINS OF HEALTH AND DISEASE EDITORIAL BOARD MEETING

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#### 17H30-17H00 | PLENARY V

#### **DOHaD and Africa**

CHAIR: Glenda Gray

TIME	TITLE	SPEAKER	AFFILIATION
13H30	Generational and intergenerational echoes of poverty: Implications for discovery science and policy in Africa	Andrew Prentice	London School of Hygeine and Tropical Medicine, UK
13H50	Early life origins of chronic diseases: A perspective from low- and middle-income countries	Nigel Crowther	University of the Witwatersrand, SA
14H10	Long tail of neglected chronic diseases in Sub-Saharan Africa	David Phillips	University of Southampton, UK
14H30	The HIV/NCD burden in South Africa: Prevention across the lifecourse	Stephen Tollman	University of the Witwatersrand, SA
14H50	Q&A	Glenda Gray	MRC, SA

#### 15H00-15H30 | TEA/COFFEE BALLROOMS EAST & WEST

#### CLOSING

CHAIR: Lisa Micklesfied

TIME	TITLE	SPEAKER	AFFILIATION
15H30	Nick Hales Award & lecture	Deborah Sloboda	MacMaster University, Canada
15H50	David Barker Award & lecture	John Challis	University of Toronto, Canada
16H10	Journal of DOHaD Award	Michael Ross	Geffen School of Medicine at UCLA, USA
16H20	9th World Congress of DOHaD 2015 Best oral and poster-oral presentation awards	Shane Norris	University of the Witwatersrand, SA
16H30	10th World Congress of DOHaD 2017	Vincent Jaddoe	Erasmus Medical Centre, Netherlands
16H40	President's closing remarks	Mark Hanson	University of Southampton, UK
16H50	African drumming with delegates	Drum Café	

#### 17H15 CONGRESS ADJOURNS

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