

## Index of abstracts' titles

What did we learn from historical cohort studies	. S1
Preconception and embryonic origins of health	. S1
Stress, glucocorticoids and the developing brain	. S2
Fetal thyroid hormone exposure	. S2
Leptin trajectories from birth to mid-childhood and early adolescence cardio-metabolic outcomes: Findings from project Viva	. S2
Prenatal air pollution exposure and newborn thyroid function	. S3
Maternal thyroid function during pregnancy and offspring depression and anxiety: A study from Avon Longitudinal Study of Parents and Children	. S4
Association between maternal thyroid function in early pregnancy and offspring autistic traits: meta-analysis of three prospective birth cohorts	. S4
Role of leptin in M1 programming of monocyte-derived macrophages from newborns of obese mothers	. S5
Pregnancy interventions, where are we?	. S5
A little less association, a little more action: a workshop to develop new approaches to implementing and evaluating early life interventions	. S6
Effects of an antenatal dietary intervention in overweight and obese women on 6-month infant outcomes: follow-up from the LIMIT trial.	. S6
Which lifestyle interventions improve gestational weight gain for women of varying educational attainment? IPD meta-analysis from the i-WIP collaboration.	. S7
Exercise during pregnancy to prevent gestational diabetes mellitus and improve outcomes in overweight /obese pregnant women: A randomized controlled trial	. S7
The effect of a lifestyle intervention in obese pregnant women on change in gestational metabolic profiles: findings from UPBEAT	. S8
Exercise before and during pregnancy in maternal obese rats has preventative effects on offspring lipid dysregulation at 650 days age	. S8
Early nutritional influences on metastable epialleles associated with human disease	. S9
Epigenetic selection and the DNA methylation signature of prenatal adversity	. S9
Low vitamin B12 in pregnancy is associated with adipose derived circulating miRNAs targeting PPAR and insulin resistance	S10
Prenatal air pollution exposure and genetic and epigenetic variation in mitochondrial DNA are associated with infant growth	S11
Maternal obesity induces epigenetic changes in baboon fetal liver that regulate pathways thought to play important roles in regulating lifespan	S11
Cadmium-associated differential methylation throughout the placental epigenome: an EWAS across two US birth cohorts	S12
Methylome changes associated with prenatal tobacco smoke exposure in sorted cord blood CD4+ cells	S12
Early kidney development and later life consequences	S13
Early childhood: A critical period for kidney function throughout life	S13

A new approach to chronic kidney disease through the application of principles of evolutionary biology: tradeoffs and life history theory	S14
Early longitudinal kidney growth patterns and glomerular filtration rate at school-age	S15
Deficiency in retinoic acid leads to inborn nephron deficit in offspring exposed to diabetes in utero	S15
Birth weight and postnatal weight influence glomerular podocyte number and renal pathophysiology	S16
Cardiorenal and metabolic pregnancy adaptations in females born small on a high fat diet and benefits of endurance exercise training.	S16
Lifecourse origins of healthy ageing - The DynaHEALTH project	
Prenatal depressive symptoms and offspring brain morphology: a pediatric neuroimaging study	
DNA hypomethylation of placental growth factor and decreased SAM:SAH ratio in placental tissue of preeclampsia-	S18
Metabolomics in Gestational Diabetes mellitus: transgenerational correlations and impact of maternal phenotypes on offspring metabolites	S18
The association between duration of breastfeeding and type 2 diabetes in adulthood: influence from potential confounders	S19
Life-course accumulation of socioeconomic adversities and obesity: a 46-year follow-up of the Northern Finland Birth Cohort	S19
Genetically determined later puberty impacts lowered bone mineral density in childhood and adulthood	S20
How to write a successful grant	S21
Assessment of adaptive cerebrovascular changes in fetuses of diabetic mothers on two-dimensional obstetrics ultrasound .	S21
Associations of gestational diabetes and glucose levels with ultrasound scan assessed fetal growth in South Asian and White European women	S22
Association of maternal and cord blood adipokines with offspring adiposity in project Viva: Is there an interaction with child age?	S22
Association of fetal fractional limb volume at 20 and 30 weeks gestation with newborn body composition	S23
Feasibility of three-dimensional power Doppler ultrasound and Virtual Reality measurements of (utero)placental vascularization as non-invasive biomarkers of (utero)placental health	S23
Role of placental, amniotic and cord blood microbiome in the colonisation of the infant gut: a systematic review	S24
Prenatal exposure to maternal anxiety and emotion processing at age 4 years: an event-related potential study	S25
Positive maternal mental health during pregnancy associated with specific forms of adaptive development in early childhood	S26
Can obesity in early childhood be influenced by lifestyle interventions during pregnancy? A systematic review of the literature.	S27
Maternal circulating cotinine concentration in pregnancy and offspring weight and body mass index (BMI) in the first 36 months	S27
Effect of maternal exercise during obese pregnancy on the cardiovascular health of male mouse offspring	S28
The Importance of Birth Cohorts in DOHaD Research (an Australian and New Zealand Perspective)	S29
Aboriginal Birth Cohort Study	S29
Growing up In New Zealand Study	S29
Studies of the role of epigenetics in the early life origins of disease using a twin cohort	S30
Fertility in the fast lane: 21st Century technologies and reproductive outcomes	S30
The Western Australia Pregnancy Cohort (Raine Study) and the Intergenerational Cycle of Obesity	S31
International Society of Developmental Origins of Health and Disease: Launch of the DOHaD Africa Chapter	S31

Association between maternal and household socioeconomic status with birth and infant growth outcomes in sub	
Saharan Africa: a systematic review and meta-analysis	S32
Proposal to investigate the iodine status and thyroid function of South African pregnant women and the impact on their offspring	S32
Nutritional Perspectives on maternal and child health in Japan for strategic transforming lifestyle and dining	S33
Fetal exposure to PCBs and alteration of DNA methylation in umbilical cord found in birth cohort in Japan	S33
Understanding of DOHaD concepts in Japanese pregnant women studied using a standardised questionnaire for international comparison	S34
A maternal diet with moderately high-fat modulates adipose gene expression of glucose, lipid metabolism in the offspring	S34
Undernourishment in utero as well as endoplasmic reticulum stress alleviation affects lipid profile of the mice fatty liver	S35
Japan Environment and Children's Study (JECS) - Study design and present status	S35
Mendelian Randomisation in a DoHaD context: what does this mean?	S36
Assessing causality in associations between maternal adiposity and perinatal birth outcomes in mothers and offspring:  A Mendelian randomization approach	S36
Genome-wide association study identifies three novel genetic determinants of dental maturation	S37
Transgenerational programming of methylation and gene expression in the prefrontal cortex (PFC) by glucocorticoids	S37
Associations of genetic variants for birth weight with fetal growth measures in the Generation R Study	S38
Genome-wide analysis of H3K27ac reveals differential activity of regulatory regions in placentas of pregnancies affected by fetal growth restriction	S39
Developmental Origin of Health and Disease (DOHaD) and the circadian clock: later life health effects of gestational circadian rhythm disturbance in mice	S40
Impact of postnatal light conditions on development and later life health	S40
Developmental Origin of Health and Disease (DOHaD) and the circadian clock: epigenetics pre- and early postnatal circadian rhythm disturbance in mice	S41
Maternal melatonin or agomelatine therapy prevents programmed hypertension in male offspring of mother exposed to continuous light	S41
Premature birth and circadian preference in young adulthood: evidence from two birth cohorts	S42
Association of sleep quality in pregnancy with obesity and cardiometabolic traits in childhood	S42
DOHaD and the early life exposome	S43
Effects of prenatal exposure to particule matter air pollution on lateral ventricles, corpus callosum and behavioral problems in children	S43
Maternal circulating cotinine concentration in pregnancy and persistent short stature in children from a multi-ethnic Asian cohort.	S44
Parental smoking and risks of birth complications, childhood overweight and obesity: individual participant data meta-analysis of 200,000 singleton births	S45
Early-life environmental exposure determinants of child behavior and mental health: an exposome-wide approach in the HELIX project	S45
Consequences of maternal overweight and obesity in pregnancy on offspring diabetes risk: a record linkage study in Aberdeen, Scotland	S46
Early-life factors and cancer development	S46
Environment, DNA methylation and risk of childhood acute lymphoblastic leukaemia: a novel Mendelian randomization study.	S47
DNA methylation as a potential mediator of early life exposures on risk of childhood acute lymphoblastic leukaemia	S47

Epigenetic precursors of childhood cancer and associated early-life exposure	S48
Associations between early-life body size factors and pubertal onset by breast cancer family history in the LEGACY	010
Girls Study	S49
Exposure to chemotherapy induces epigenetic damage in normal cells in childhood cancer patients	S49
Paternal obesity modifies the effect of an antenatal lifestyle intervention in women who are overweight or obese on newborn anthropometry	
Effect of maternal cafeteria diet and taurine supplementation on body and organ weights of the offspring	S50
DNA-methylation and body composition in pre-school children of the CHOP study- Are methylation variants associated with further body composition development?	
Maternal diabetes impairs fetal brown adipose tissue development	S52
Effect of dietary lipid structure in early life improves metabolic function of adult adipose tissue in mice	S52
Adult glucose dysregulation after severe prenatal food restriction in the Dutch Hunger Winter: only partial mediation by current body size.	S53
Prenatal exposure to phthalates in relation to epigenetic and metabolomic markers in a birth cohort with high risk of obesity	S53
Exploring mechanisms and examples of paternal epigenetic inheritance	S54
Programming by maternal over-nutrition: a developing obesity crisis	S54
Genetics of birth weight and later life diseases	S55
Consequences of fetal hypoxia: Does it all come down to timing, duration and severity?	S55
Consequences of fetal and neonatal adaptation to a hypoxic environment	S55
Sex-specific programming of cardiac bioenergetics by chronic hypoxic pregnancy and mitochondria-targeted antioxidant therapy	S56
Low level arsenic exposure during pregnancy in 3xG cohort in Flanders: increased maternal oxidative stress and reduced birth weight	S56
Effect of maternal antioxidant MitoQ treatment on aged offspring cardiovascular function in a rat model of intrauterine growth restriction (IUGR)	S57
How safe is ART? Effect of in vitro fertilisation (IVF) and prolonged embryo culture on mouse development and postnatal health	S57
Life course evolution of vitamin B12 deficiency in young rural Indian adults	S58
The impact of periconceptional folic acid on reproduction, care and health	S59
Advanced glycation end products-rich diet during pregnancy affects early somatic and motoric development and metabolic status of offspring in mice	S59
Maternal genetic polymorphisms affect plasma vitamin B12 levels during pregnancy and impact the neonatal epigenome	S60
Exposure to low-dose vitamin D from fortification in prenatal life and risk of childhood asthma: Results from the D-Tect study.	S60
Folic acid supplementation partly mitigates adverse health outcomes caused by perinatal exposure to Arctic contaminants in a rat model	S61
Maternal hypertensive disorders of pregnancy and cardiovascular disease risk factors in offspring at age 40 years	S62
Maternal pre-pregnancy overweight and childhood physical activity and fitness - the ABCD study	S62
Achieving late-pregnancy glycemic control is beneficial for the long-term health of obese mothers and their children-the PEACHES mother-child cohort	S63
Excess maternal gestational weight gain is associated with early timing of pubertal onset in daughters	S63
Unfolded protein response in developing intestine inhibited by maternal obesity	S64

Cord metabolic profiles in obese pregnant women; insights into offspring growth and body composition	S64
Maternal body mass index, gestational weight gain and the risk of childhood overweight: An individual participant data	
•	
Neonatal adiposity: determinants and consequences for later health	
Birth weight and subsequent risk of obesity across two generations in Chinese females	S66
Body mass index trajectories associated with resolution of elevated adiposity in youth and incident adult obesity	S66
BMI change during puberty is a novel risk factor for adult heart failure	S67
Qualitatively distinct child to adult BMI trajectories and adult cardiometabolic outcomes	S68
The development of the obesity epidemic across age, time and socioeconomic position: evidence from five UK birth cohort studies	S68
The positive association of infant weight gain with adulthood body mass index has strengthened over time: Fels Longitudinal Study	S69
Do low-birth-weight babies have higher central adiposity? A study on newborn anthropometry and adiposity in Colombo, Sri Lanka	S70
Differences in development of white adipose tissue depots in post-weaning C57BL/6j mice	S70
Is early life exposure to polyomaviruses and herpesviruses associated with childhood obesity and cardiometabolic traits?	S71
The joint effect of maternal smoking during pregnancy and pre-pregnancy overweight on the development of overweight in children	S71
Testing the developmental mismatch hypothesis: how responses to unhealthy childhood diet depend on prenatal experience	S72
Current size not birth size is associated with risk of metabolic syndrome in young Australian adults	
Birth weight classification and BMI trajectories in early life: evidence of maternal effects from the Lifeways Cross-Generation Cohort study	1
Impact of foetal growth restriction on rate of change and composition of young adult body mass	S74
Assessment of infant body composition using air displacement plethysmography	
Predisposing factors for metabolic syndrome in pregnancy and newborns` body size: preliminary report from the Croatian Islands` Birth Cohort Study	
Improving risk estimates for metabolically healthy obesity and mortality using a refined healthy reference group	
Effects of birth weight and childhood accumulation of body fat on metabolic parameters in primary school children in Sri Lanka	
Which lesson from the evaluation of parental perception of child's weight in an European cohort of 8 years old	
children	
The emergence of cardiovascular risk factors in adolescence in a high risk Australian population	S78
Simple health indicators to evaluate influence of early life gluco-psychosocial factors on self-reported health in later life	S78
Excess early postnatal weight gain and blood pressure in healthy young children	S79
Is birth weight associated with blood pressure in early adolescence? Results from a tropical birth cohort	S79
The effect of stunting on blood pressure and BMI in adolescence: A prospective cohort study of the Dogon of Mali	S80
No associations of excessive crying with resting blood pressure and cardiac autonomic nervous system activity in childhood.	S80
Methylglyoxal treatment in lactating mothers leads to type 2 diabetes phenotype in male rat offspring at adulthood	S81
Awareness, Treatment, and Control of Hypertension is Low among Adults in Aksum Town, North Ethiopia: A Sequential Quantitative-Qualitative Study	S81
Perinatal cholesterol influence differentially atherosclerosis progression in ApoE-/- offspring male and females by altering cholesterol metabolism.	S82

Cardiometabolic risk factors prevalence among employed adults in urban Delhi: Need for a life course approach for prevention of CVDs	S82
Joint effect of birth weight and obesity measures on abnormal glucose metabolism at adulthood	S83
Neonatal nutritional deficit in infants with birth weight less than 1500 g and Its association with blood pressure in adolescence	S84
Hepatitis C virus infection might increase the risk of atrial fibrillation	S84
Body parameters at birth and blood pressure in young age	S84
HIF3a methylation in cord blood associates with cardiovascular measures in early childhood	S85
Physical activity before and during pregnancy and DNA methylation in maternal peripheral blood	S86
DNA methylation mediates effects of prenatal maternal cognitive appraisal of a disaster on metabolic and immune outcomes: Project Ice Storm	S86
Impact of a low glycaemic index diet in pregnancy on DNA methylation in 5 year old children: the ROLO Study	S87
A low glycaemic index diet in pregnancy induces DNA methylation variation in blood of newborns: results from the ROLO Study	S87
Varying influence of cellular heterogenity on the relation of DNA methylation to adiposity and early life	S88
DNA methylation of nos3 promoter in IUGR-guinea pig fetuses does not predict endothelial function and DNA methylation later in life	S88
Is the low birhtweight a determinant factor for epigenetics changes and body composition?	S89
Circulating microRNAs expression of newborn associated with overweight and pregrestational obesity	S89
Epigenetic and transcriptomic changes in preterm or SGA infants during perinatal period	S90
Mother's pre-pregnancy BMI and placental candidate miRNAs: Findings from the ENVIRONAGE birth cohort	S90
Are preterm survivors aging prematurely?	S91
Tracing human stem cell lineage during development using DNA methylation	S91
Caffeine consumption during pregnancies and DNA methylation in the offspring	S92
Epigenetic gestational age: associations of family characteristics and perinatal factors with gestational age acceleration	S92
Maternal obesity predisposes adult male rat offspring to increased adiposity via epigenetic modifications in a depot-specific manner.	S93
Infants born small-for-gestational age have different placental expression of microRNAs	S93
Relationship between Glycated Hemoglobin in Early Type2 Diabetic Pregnancy and Adverse Pregnancy Outcomes	S94
Association of TRIB1 expression in human umbilical vein endothelial cells with gestational diabetes mellitus treatment terms	S94
Can we develop a successful risk score for gestational diabetes?	S95
Cardio-metabolic risk factors in offspring of diabetic mothers (ODM) in India	S96
Predictors of neonatal adiposity at birth in Gestational Diabetic and Normal Glucose Tolerant Mothers	S97
Sedentary behaviour and shorter duration of walking in early pregnancy is associated with gestational diabetes among obese women	S97
Can adverse effects on kidney in GDM newborn be prevented?	S98
Gestational diabetes-associated foetoplacental endothelial dysfunction is still present in mothers treated with insulin therapy	
Gestational diabetes and body composition of newborns	S99
Increased risk of overweight during school age in children born to mothers with GDM	S99
Exposure to metals during pregnancy and the association with gestational diabetes mellitus: Results from EDEN mother child cohort.	S100

ANGPTL4 expression is altered in human umbilical vein endothelial cells in patients with gestational diabetes mellitus	. S100
Equilibrative nucleoside transporter 1 expression in human umbilical vein endothelial cells from gestational diabetes mellitus is restored by insulin therapy	S101
The bangalore nutrition gestational diabetes lifestyle study	S101
Dysregulated hypothalamic-pituitary-adrenal axis (HPA) activity is linked to glucose intolerance in pregnancy in South Asians (SA)	S102
Neonatal outcomes among offspring of obese women diagnosed with gestational diabetes mellitus in early versus late pregnancy	S102
Intrauterine hyperglycemia induced the inflammatory signalling in the cardiac muscle of the infants of diabetic mother rats	. S103
Genetic ancestry modifies risk of asthma following early-life chest illness	S104
Preterm and early term births are associated with higher risk of asthma (asthma medication entitlement): The Finnish 1987-90 Birth Cohort	S105
Associations of birth weight and prematurity with late adolescent lung function in Hong Kong's 'Children of 1997' Birth Cohort	S105
Associations of agricultural pesticide exposure with asthma prevalence in adolescence: the PIAMA birth cohort	S106
Prenatal exposure to airborne pollutants and the respiratory health through childhood - lessons from Krakow birth cohort	. S106
Faltering of growth in infants with atopic eczema prior to the clinical onset of the condition.	S107
The role of maternal bulimia nervosa and anorexia nervosa before and during pregnancy in early childhood wheezing $\dots$	S108
Maternal depressive symptoms over time and asthma in 3-year-old children: findings from a longitudinal Canadian based pregnancy cohort	S108
Influence of maternal and fetal 25-hydroxyvitamin D levels on lung function and atopic disease development	S109
Exploring obesogenic pathways linked to asthma in adult life: 1978/79 Ribeirao Preto Cohort, Brazil	S109
Fetal growth and childhood lung function in the STOPPA twin study	S110
Does lung function growth trajectories depend on prenatal or postnatal exposure to airborne pollutants? - Krakow birth cohort study	S110
Maternal butter intake during lactation is associated with less food allergy at 1 year of age	S111
Eczema and allergies in childhood associate with psychological and behavioral problems primarily in girls	S111
Eczema phenotypes across childhood	S112
Correlation of maternal fatty acid status during pregnancy with childhood inflammatory markers: the MEFAB cohort	S112
Influence of early growth on magnetic resonance imaging and spirometry obtained lung function in childhood	S112
Early life factors, obesity risk and the metabolome of young adults	S113
Relation of clinical and metabolic characteristics to neonatal adiposity among obese pregnant women.	S113
Wireless communication devices and sleep problems in adolescents	S114
Relations between infant feeding practices and sleep quality or duration at age 2 in the French EDEN mother-child cohort	S115
Maternal and fetal SCD-1 activity are associated with elevated birth weight and adiposity and influenced by diet in late gestation	S115
Amino acid profile in early pregnancy in a heterogeneous group of women at high risk of gestational diabetes	S116
Melatonin prevents the development of hypertension programmed by prenatal dexamethasone plus postnatal high-fat diet in adult offspring of both sexes	S116
Beyond the genome. How the metabolome can help uncover gene function	S117
Atopic women have lower breast milk levels of acetate and butyrate	

High fat and very low carbohydrate intake during pregnancy does not influence the folate nutritional status in mother and foetuses	
Study protocol: Why pregnant women eat what they eat. Socio-ecological determinants of antenatal diet and development of an intervention tool	
Methionine supply and tissue glutathione in the pregnant rat	S135
Fetal and maternal corticosterone concentrations in pregnant rats fed a diet reflecting that of the poorest socioeconomic group in Scotland	S135
Role of slow-digesting carbohydrates during pregnancy for reducing the risk of developing NAFLD phenotype in obese rats' offspring (NIGOhealth study)	S136
Maternal protein restriction in young rats alters long chain fatty acid sensing by duodenal entero-endocrine cells, leading to increased-intestinal permeability	S136
Education and income level and their relationship with breastfeeding duration: 8949 mother-infant pairs in the Born In Guangzhou Cohort Study (BIGCS)	S137
Co-creation of knowledge: Involving end-users and stakeholders in creating a website to promote healthy eating habits, The food4toddlers study	S137
The role of vitamin D on circulating memory T cells in children: the Generation R Study	S138
Are children with celiac disease autoimmunity at risk for vitamin D deficiency? - The Generation R Study	S138
Vitamin B12 deficiency in early pregnancy associates with maternal obesity: Findings from two UK cohorts	S139
An inadequate maternal vitamin D status is associated with congenital heart defects in the offspring	S139
Low vitamin B12 induces de novo lipogenesis in human hepatocytes	S140
Effect of vitamin B12 deficiency on the lipid lowering effect of metformin in the liver	S141
Prevalence and determinants of vitamin D deficiency in pregnant women and their neonates: a multicentric study in Switzerland	S141
Micronutrients in infants in Cali, Colombia	S142
Early-life stress reduces availability of essential micronutrients; a nutritional intervention strategy to prevent its lasting consequences on cognitive function	S142
Expressions of Transcobalamin receptor CD32O and transporter TCN2 in low vitaminB12 treated human adipocytes	S143
Intra cellular uptake and levels of vitamin B12 in hepatocytes	S143
Prenatal iron-deficiency causes sex-dependent mitochondrial dysfunction in the fetal liver and kidney	S144
Perinatal iron deficiency alters brown fat quantity and thermogenic capacity in adult rats	S145
Impact of mandatory iodine fortification on young adults in the Top End of Australia	S145
Vitamin D concentrations in pregnant women and their newborns: relation with gestational birth weight	S146
Generation Victoria: A unique opportunity for better lifelong health and learning	S146
The ORIGINS Project - a healthy start for a better future	S147
What do pregnant women know about DOHaD: Exploring knowledge translation in the Mothers to Babies (M2B) Study	. S147
The Welcome Baby Project: follow-up of the first virtual cohort in Brazil	S148
Study design and future perspective of a birth and three generation cohort study in Japan: The TMM BirThree Cohort Study.	. S148
Gender specific DOHaD and implications for women's health	S149
The Human Early Life Exposome (HELIX) project: molecular mechanisms	S150
Refusal to partake in an electronic health promotion app	S151
The Canadian DOHaD cohort registry: a far-ReACHing Maelstrom Research initiative toward facilitating collaborative	
research.	S151

We learnt and now we are teaching our family: Adolescent DOHaD knowledge translation supporting health development in the Cook Islands	S152
Awareness and understanding of DOHaD-related terms and concepts in students during undergraduate heath professional programmes in Japan and New Zealand	S152
Baseline profile of a birth and three generation cohort study in Japan: The TMM BirThree Cohort Study	S153
Early-life stressors and LifeCycle health	S154
Sharing Longitudinal, Non-Biological Birth Cohort Data: A Cross-Sectional Analysis of Parent Consent Preferences	S154
Recruitment of women in early pregnancy in South Africa: the early access conundrum	S155
How could we recruit Grandparents in Genome Birth Cohort Study? Lessons Learnt from the TMM BirThree Cohort Study	S155
The impact of the UK 2008-2010 recession on maternal and infant health in the Born in Bradford cohort	S156
Lifelines: a unique biobank providing data to study the development of diseases	S156
Potential for postnatal nutrition interventions	S157
Nutrition and the first thousand days: maternal and prenatal interventions	S157
Maternal nutrition and metabolic outcomes in the offspring	S158
DOHaD Annual General Meeting	S158
Placental adaptation and offspring outcomes	S158
Placental nutrient transfer adaptations	S159
Maternal 2-hour glucose levels are associated with placenta DNA methylation of genes with potential functional expression adaptations	S159
Placental gene expression, obstetrical history and polygenic risk for schizophrenia	S160
Sildenafil enhances nitric oxide (NO)-dependent vasodilation in the human placenta	
Igf2 deletion from the murine placental endocrine layer alters maternal sensitivity to glucose and insulin, and reduces fetal growth	
Biodiversity and microbes: Ecological solutions to the human health crisis	
The Role of Human Milk in Early Nutrition Programming	
Tobacco control policies and perinatal and child health: a systematic review and meta-analysis	
Socioeconomic position in childhood and adulthood and ideal cardiovascular health: A 32-year longitudinal study	
Hygiene and health: Results from Pune Maternal Nutrition Study	
Effects of low-level prenatal lead exposure on child IQ at 4 and 8 years in a UK birth cohort study	
Prenatal air pollution exposure predicts newborn telomere length at birth	S165
Perinatal Pathways to Psychopathology	
Early life stress, neurodevelopment and glucocorticoid receptor genes: domestic violence increases risk for learning problems in homozygous FKBP5 haplotype carriers	S165
Relationships between depression and anxiety symptoms scores and blood pressure in young adults	S166
Influence of environment on child growth: the non-organic failure to thrive in the context of an affective deficiency syndrome .	S167
Antidepressant use during pregnancy and child development	
Perceptions of indigenous fathers during pregnancy: findings from the ENRICH study	
Later-life interventions to reverse/compensate for effects of early life adversity	
Expression of micronuclei-related genes in cord blood in association with in utero particulate matter exposure: P53 as a central hub	

Perinatal exposure to dioxins and body mass index at seven years: A pooled analysis of three European cohorts	S170
Exposure to diesel exhaust particles during the course of gestation increases risk of neurocognitive impairment of male offspring	
Environmental programming of respiratory allergy: utility of a child's spit epigenome.	
Maternal alcohol consumption during pregnancy and offspring epigenome-wide DNA methylation: Findings from the Pregnancy and Childhood Epigenetics (PACE) Consortium	
Amplification of risk of intrauterine fetal growth restriction due to maternal smoking by illicit drugs and alcohol abuse	
The use of carbon monoxide screening in identifying potential maternal smoking.	
Placental TRPC6 expression and gestational trimester-specific fine particle air pollution exposure in the ENVIRONAGE birth cohort	
The association of birth weight and infant growth with changes in renal dysfunction in newborns	S174
Environmental influences on child health outcomes (ECHO) – NIH project	S174
Newborn DNA-methylation, childhood lung function, and the risks of asthma and COPD across the life course	
Gestational weight gain charts for different body mass index groups for women in Europe, North America and Oceania	
Maternal smoking during pregnancy and birth weight in European cohorts: The HEALS project	
Air pollution exposure during fetal life, brain morphology, and cognitive function in school-age children	
How to make sure your research has great impact	S177
Dietary acrylamide intake during pregnancy and postnatal growth and obesity: results from the Norwegian mother and child cohort study (MoBa)	S177
Targeted metabolite profiling in cord blood from offspring of obese mothers reveals alterations in phospholipid and amino acid metabolism	
Body composition during infancy and childhood and cardiometabolic health throughout the lifespan: a systematic review	
Diet quality in early life in relation to allergic sensitization and atopic diseases in childhood	S179
Associations of maternal physical activity and sedentary behavior with offspring growth in infancy	S179
History of hypertensive disorders of pregnancy as a risk factor for type 2 diabetes and cardiometabolic deterioration in middle age	S180
Sex-specific Transgenerational Effects of Bisphenol A on Metabolic Health	S181
Exposure to antibiotics during the first year of life and childhood growth, obesity and cardiometabolic traits	S181
Prenatal air pollution exposure and attentional function and working memory at 7 years of age	S182
Breaking the myths: Bidirectional associations between parent perception of child overweight and children's BMI from ages 2-3 to 14-15 years	S182
Breastfeeding and cardiometabolic markers at age 12: a population-based birth cohort study	
Sex-specific risks on adverse body composition and metabolic outcomes in term born children with extreme birth weights: a narrative review	
Exposure to tobacco smoke in prenatal and early postnatal life alters infant gut microbiota and increases risk of childhood overweight	S184
Pregnancy glycemic status reflects lifecourse glycemic status of the mother	S185
Maternal plasma vitamin D concentrations during pregnancy and cardio-metabolic risk factors in the offspring	
Assessment of abdominal aorta intima media thickness in late preterm appropriate for gestational age and growth restricted fetuses: a comparative cross-sectional study	
The Welcome Baby Project, the first virtual cohort in Brazil: prenatal consultation and exclusive breastfeeding rates	
Effect of linear growth rate and change in adiposity in childhood and adolescence on blood pressure in Afro-Caribbean youth	

The effect of supplementation with folic acid in non-pregnant and pregnant mice on the ovarian morphology and embryo development	S205
Gestational exercise prevents cognitive impairment in rat offspring exposed to maternal high-fat diet	S205
How to turn your cohort into an intervention study	S206
Epigenome-wide association studies in the pregnancy and childhood epigenetics consortium	S207
Maternal smoking in pregnancy and offspring methylation	S207
Pre-pregnancy maternal BMI and offspring epigenome-wide DNA methylation: Findings from the Pregnancy and Childhood Epigenetics (PACE) Consortium	S207
A genome-wide meta-analysis of cord blood DNA methylation and birth weight in 8365 newborns reveals over 1000 differentially methylated sites	S208
Gestational age and DNA methylation profiles of newborns and children; a PACE meta-analysis	S208
DNA methylation and childhood body-mass index	S209
DNA methylation signature of smoking in adult lung tissue is enriched for in utero smoke exposure signature	S209
Synthetic chemical exposures in early life as obesogens and metabolic risks	S210
Environmental chemicals and early childhood growth in the Upstate KIDS Study	S210
Non-A bisphenol exposures widely prevalent in pregnant women in a population-based cohort in the Netherlands, 2004-5	S211
Prenatal exposure to perfluoroalkyl substances, immune-related outcomes, and lung function in children from a Spanish birth cohort study	S211
The vicious cycle of pregnancy induced complications and NCDs; it all starts in utero - FIGO GLOBAL VISION	S212
DOHAD - addressing the science-policy nexus	S212
Interaction between infection and obesity and gestational diabetes during pregnancy	S213
DOHaD Trainees Meeting	S213
Sex differences in the association between adverse childhood experiences (ACEs) and adiposity measures in adolescents	S213
Changes in trajectories of adult body mass index in China 1991-2011: evidence from the China Health and Nutrition Survey	S214
ROLO Kids Step Test; A simple method of estimating cardiovascular fitness and adiposity in 5 year old children	S214
Air pollution, noise, green space and overweight in children aged 12 years: the PIAMA birth cohort study	S215
Infant subcutaneous fat and abdominal, pericardial and liver fat assessed by Magnetic Resonance Imaging at the age of 10 years	S215
Growth in early life and the risk of obesity among children in Aruba: a retrospective population-wide cohort study	S216
Neonatal chronic pain, analgesia and obesity in adulthood : experimental study in rat	S216
Early weight gain, childhood adiposity and risk factors for type 2 diabetes in children aged 10-12 years: the QUALITY cohort	. S217
Individual rearing of mice impairs adolescent growth and increases adult obesity risk	S217
Lifecourse developmental trajectories of body mass index - A 46 years follow-up of the NFBC1966	S218
Infancy growth and BMI at 21 years: the role of home environment in infancy	S219
Low insulin levels during lactation in rats can protects against obesity in adult life	S219
Exploring the relationship between early and later life exposures and obesity in middle-age: Findings from the Newcastle Thousand Families study	S220
A systematic review of the life course determinants of metabolically healthy obesity	S220
Faster infancy growth and waist circumference and blood pressure at 21 years	S221

Differential associations of subcutaneous adiposity size and shape with all-cause mortality among NHANES III adult population	. S221
Resistance exercise combined with regular insulin supplementation alter hepatic glucose and lactate metabolism in healthy swiss mice	. S222
Vitamin B12 deficiency triggers adipocyte dysfunction by enhancing triglyceride biosynthesis and pro-inflammatory cytokine production: a new agonist in metabolic disease?	. S223
Insulin resistance and liver fat assessed by Magnetic Resonance Imaging in children.	. S223
Associations of maternal pregnancy, social and lifestyle characteristics and blood pressure at age 4/5 in White British and Pakistani children	. S224
Paternal cholestasis alters offspring metabolic phenotype and predisposes to hypertension	. S224
In Utero Caffeine Exposure Induces Transgenerational Effects on the Adult Heart.	. S225
Metformin treatment in obese pregnant mice modulates hepatic fat accumulation and mitochondrial electron transport chain activity in adult offspring livers	. S225
Perinatal maternal high-fat diet affects the metabolic response to fructose intake during adolescence period of male offspring	. S225
Maximizing Precision using Quantitative Certification Programs	. S226
Effect of maternal high fructose and offspring high fat intake on programmed hypertension in young adult rats	. S227
Brain oxidative stress in the programming of hypertension in young offspring to maternal high fructose diet	. S228
Mechanisms involved in the increase of insulin secretion stimulated by a fraction rich in sterebins extracted of Stevia rebaudiana	. S228
High fat diet during adolescence induces increased blood pressure in adult rats.	. S229
Maternal fructose exposure further increases myocardial remodeling and impaired cardiac function in rat offspring with doxorubicin-induced cardiomyopathy	. S229
Maternal Mediterranean diet during pregnancy and offspring longitudinal growth trajectories and cardiometabolic risk in early childhood	. S230
Epigenetic differences in cord blood of newborns exposed to antidepressant medication during pregnancy. A study in the Aarhus Birth Cohort	. S230
Identification of genes susceptible to epigenetic change in response to maternal folate supply and in childhood acute lymphoblastic leukaemia	. S231
Duration of breastfeeding is associated with leptin DNA methylation in 6 months old children	. S231
Sex differences in neonatal DNA methylation of imprinted genes and executive functioning in early childhood	. S232
Like father, like son: Investigating the molecular underpinnings by which environmental contaminants change sperm miRNA expression intergenerationally	. S232
DNA methylation mediates the association of prenatal adversity with risk factors for metabolic disease	. S233
Paternal diet may leave imprinting marks in sperm that persist in offspring: Results from the TIEGER study	. S233
The effect of peri-conceptional maternal folate on DNA methylation at the ZFP57 locus in Gambian offspring	. S234
The response of the DNA methylome to maternal overnutrition in the brain of rat offspring in early life and adulthood	. S234
Epigenetic markers of the intergenerational transmission of stress	. S235
Epigenetic signatures associated with prenatal socio-economic status	. S235
Comparison of Agilent SureSelectXT Human Methyl and Illumina HumanMethylation Infinium arrays	. S236
Epigenetic mechanisms linking pre-conceptional nutrition and health assessed in India and Sub-Saharan Africa- the EMPHASIS study	. S237

Epigenetics of developmental conditions and later life ovarian function: A pilot study among British-Bangladeshis	. S237
Homocysteine levels associate with subtle changes in leukocyte DNA methylation: an epigenome-wide analysis	. S238
Epigenetics in early life: placental promoter methylation in DNA repair genes and prenatal exposure to particulate air pollution	. S238
DNA methylation analysis of neurodevelopmental disorders using disease-discordant monozygotic twins	. S238
Neonatal patterns of DNA methylation differentiate between children who develop early-onset vs low conduct problems: Findings from a prospective, epidemiological birth-cohort	. S239
Adult pre-pregnancy weight change and risk of developing hypertensive disorders during pregnancy	. S240
The value of the 24-hour proteinuria in evaluating the severity of preeclampsia and predicting its adverse maternal outcomes	. S240
Maternal infections and preeclampsia: a systematic review of epidemiological literature	. S241
Low birth weight and prematurity trends from 2005 to 2014: experience from a public maternity hospital in Athens, Greece	. S241
Z-score differences for assessment of growth based on cross-sectional growth charts do not reflect weight gain in preterm infants.	. S242
Child protection actions among children born preterm - the contribution of developmental disorders and intellectual disability	. S243
First trimester bisphenol and phthalate urine concentrations, placental dysfynction, blood pressure patterns during pregnancy and risks of gestational hypertensive disorders	. S243
Evaluation of the single or the combined impact of prematurity and IUGR on renal development in paired Twins	. S243
On the consequences of adapting pregnancy to adverse environments: implications of ancestral placental malaria for pregnancy complications and cardiovascular disease	. S244
Role of maternal infections in the development of preeclampsia in Michigan USA	. S244
Morphometrical placental analysis of maternal hypertensive disorders of pregnancy in a Latin American population	. S245
Preeclampsia: Prevalence and perinatal repercussions in a University Hospital in Rio de Janeiro, Brazil	. S246
Postnatal growth of preterm infants	. S246
Associations between dietary behavior and preterm birth in the Norwegian Fit for Delivery study - interaction with offspring gender	. S246
Maternal exposure to alcohol and nicotine: Is there an effect on chronic disease development at 5-6 years?	. S247
Loss of intrinsic tone and impaired vasodilatative reaction in Aa. interlobares may contribute to prospective nephron damage in IUGR rats.	. S247
Emotional Status of non-Indigenous Australians from adolescence to young adulthood	. S248
Association of Depression and Life Satisfaction with Low Resilience among married women of Karachi, Pakistan	. S248
The associations of maternal mental health and stress in pregnancy with offspring wheezing and infections	
Adversity in childhood and maternal depression in pregnancy	. S250
Through the voice of children: narratives of third generation survivors of maternal death on the Arabian Peninsula	. S250
Socioeconomic inequalities in psychosocial problems in young children: mediation analysis of maternal depressive symptoms during pregnancy, infancy and early childhood.	. S251
Maternal employment, parental socioeconomic status, and the risk of adverse pregnancy outcomes	. S251
Perceptions of pregnancy preparation in socioeconomically vulnerable women: a qualitative study	. S252
Beyond early adversity: Parenting predicts infant health in a community sample	. S252
A structured approach to compare different theoretical models in the context of childhood adversity and depressive symptoms	. S253

The association between prenatal alcohol exposure and offspring mental health	S254
Impact of parental cancer on intellectual performance, stress resilience, and physical fitness in late adolescence among boys	S254
Maternal prenatal anxiety and stress is associated with children's health: a longitudinal study	S254
Trajectories of maternal anxiety and child development at three years	S255
First trimester antenatal depression and anxiety: prevalence and associated factors in an urban population in Soweto, South Africa	S255
Mechanisms of childhood cadmium toxicity	S256
Puberty onset in children environmentally exposed to organochlorine compounds	S256
Prenatal acrylamide exposure, birth outcomes and IGF2, and interaction with single nucleotide polymorphisms in acrylamide-metabolizing genes	S257
The outdoor exposome and birth weight association in the HELIX cohort	S257
Prenatal exposure to perfluoroalkyl substances and birth outcomes in a Spanish birth cohort: assessing confounding by maternal glomerular filtration rate	S258
Exposure to ambient air pollution predicts telomere length in 8-year old children	S258
Temporal and spatial variability of personal exposure to radio frequency electromagnetic fields in children in Europe	S259
Prenatal particulate air pollution exposure and cord blood homocysteine in newborns; results from the ENVIRONAGE birth cohort.	S260
Prenatal exposure to perfluoroalkyl and polyfluoroalkyl substances affects leukocyte telomere length in female newborns	S260
Socioeconomic and dietary predictors of BPA, paraben and benzophenone blood levels in a subcohort of EPIC-Spain	S261
Fine particulate air pollution exposure and maternal oxidative stress during pregnancy: the IPANEMA cohort	S261
Newborn sex-specific transcriptome signatures and gestational exposure to fine particles: findings from the ENVIRONAGE birth cohort.	S262
Nickel boride nanoparticle toxicity and microarray analysis on human pulmonary alveolar cells	S262
Aflatoxin exposure is correlated with child stunting while distance between water and sanitation infrastructure is correlated with child enteric dysfunction	S263
The influence of park features on park satisfaction and park use in a multi-ethnic deprived urban area	S263
Influence of intrauterine growth restriction and preterm birth on motor performance in childhood: evidence from a cohort study.	S264
Fetal growth and cognitive development in the Born in Bradford (BiB) cohort	S264
The association of maternal thyroperoxidase antibodies during pregnancy with offspring IQ and brain morphology	S265
Key neurocognitive domains in adults born preterm	S266
Assessing causality in the association between maternal pre-pregnancy obesity and child neurodevelopment: observational and mendelian randomization analyses	S266
Seasonality of maternal plasma tryptophan levels in early pregnancy: Implications for fetal brain development	S267
Birth weight, gestational age and cognitive functions over the life-course in the Generation Scotland subsample of the Aberdeen Children of the 1950s.	S267
Early postnatal growth and neurodevelopmental outcome in individuals born with moderately low birth weight:	S268
Perinatal risk factors associated with visual processing dysfunctions at 1y of age in children born between 26-32 weeks	S268
Helicobacter pylori infection and childhood neurodevelopment, the Rhea birth cohort in Crete, Greece	S269
Assessing The Impact of Growth Trajectory of Very Low Birth Weight Infants on Executive Functions at 11 Years of Age	S270
Using phase contrast X-ray computed tomography imaging for valproic acid rat model of autistic brain	S270

Vaccine-preventable childhood disease and adult educational attainment - Evidence from the 1967 measles eradication campaign in the United States	S271
Exploring disorganized attachment: unravelling outcomes and mechanisms/pathways using data mining	S271
Alteration of social behavior and glutamic acid decarboxylase level in the valproic acid-induced autism rat model	S272
Understanding mechanistic effects of early life exposures on neurodevelopment: Role of brain structural functional connectivity in DOHaD studies	S272
Dietary Inflammatory Index of mothers during pregnancy and ADHD symptoms in the child at preschool age: INMA and RHEA cohorts	S273
Nutritional intervention in early life influences by sex the growth velocity during the first 18 months of age	S274
Maternal high-fat diet alleviates detrimental impact of early life stress	S274
Maternal protein restriction increases duodenal enteroendocrine cells in young rats	S275
Pre-pregnancy dietary patterns and associations with socio-demographic characteristics, maternal gestational weight gain and infant birthweight	S275
Early D-cysteine or L-cysteine supplementation prevents later-life hypertension and kidney damage in spontaneously hypertensive rats exposed to high-salt intake	S276
Maternal factors associated with antenatal breastfeeding self-efficacy and infant feeding outcomes at 6 weeks postpartum	. S277
Effect of maternal low quality protein diet on plasma biochemical parameters in adult male and female offspring	S278
Inadequate Dietary Intake during Complementary Feeding at 12 and 18 Months of Age: PREOBE study	S278
Effects of maternal coconut oil supplementation during lactation upon their male rat offspring	S279
The nutrition transition in the rural and urban Free State province, South Africa	S279
Assessment and determinants of compliance to vitamin supplementation in the Pune Rural Intervention in Young Adolescents (PRIYA) trial	S279
Barriers and facilitators to fruit and vegetable consumption among rural Indian women of reproductive age	S280
Mixed environmental exposures and early childhood nutrition status among children in Bangladesh and rural New Hampshire	S281
Understanding the role of cell cycle in the fetal programming response to undernutrition	S281
Maternal omega-3 supplementation and endotoxin challenge in late gestation and their effects on piglet health	S282
Maternal dietary patterns and associations of having a small-for-gestational-age or a large-for-gestational-age baby	S282
First trimester embryonic posture using 4D ultrasonography and Virtual Reality: a pilot study	S283
Fetal fractional thigh volume: a 3D-ultrasound marker of neonatal adiposity	S284
Prenatal salivary hormone levels and the risk of small-for-gestational age	S284
The association of maternal age with fetal growth and newborn measures: the Mumbai Maternal Nutrition Project (MMNP)	S285
Antenatal fetal size, birth weight and maternal deprivation - not so straight forward after all?	S285
Maternal PIGF is positively correlated to cord blood leptin concentrations in infants born small-for-gestational-age	S286
Gender-specific differences in the association between first-trimester HbA1c and placental volume	S286
Sex-specific changes in placental glucocorticoid barrier at term after a single course of antenatal betamethasone in preterm pregnancies	S287
Occupational exposure to cosmetics is associated with excessive fetal growth and preterm birth. Results from the Elfe and Epipage2 cohorts	S287
Assessment of embryonic growth using 3D ultrasound and virtual reality in a population based prospective cohort study	. S288
The effects of glucocorticoid exposure on the preimplantation human embryo	S288

Measurement of pulmonary vascular volume using virtual reality three-dimensional ultrasound in fetus with an increased risk of chronic lung disease	S289
Intrauterine growth restriction alters gene expression in white adipose tissue in aged female mice	S289
The different response of male and female fetuses to Vibratory Acoustic Stimulation test	S290
Maternal high-fat diet programs sex-specific alterations of the endocannabinoid system and antioxidant activity in liver of adult rats	S290
Sex-specific alterations in materno-fetal endocrinological/ metabolic state after a single course of BET	S291
Sex-specific associations between parental factors and fetal growth and body proportions from mid pregnancy until birth; a multi-ethnic cohort study	S291
Genome-wide association meta-analysis identifies eight novel loci influencing the 2D:4D digit ratio, a presumptive marker of prenatal androgen exposure	S292
Early-life stress permanently alters the adult neuro-immune phenotype within the HPA axis in female Japanese quail	. S292
Cortisol in fingernails and hair: a predictor of chronic stress in young Australian Indigenous and non-Indigenous adults (pilot study)	S293
Prevalence and experiences of food insecurity among migrant women connected to a community-based organization in Edmonton, Canada	S294
Principal component-derived pediatric bone density phenotypes and genetic regulation of the developing skeleton	S294
Common adult height variants influence pediatric bone mineral density: a longitudinal candidate gene analysis	S295
Finger dermatoglyphics and reproductive success in women	S296
Stress early in life and child stress responses at age 6	S296
Birth weight is associated with lean and bone mass in healthy young adults from the Nutritionists' Health Study – NutriHS	. S297
Basal cortisol concentrations and growth in children of Mexico City	S298
Fetal protection from maternal cortisol: How early is 11-beta hydroxysteroid dehydrogenase type 2 (11-HSD2) expressed in the human placenta	S298
Neonatal TSH: A controversial biomarker of iodine and selenium status	S299
Cortisol concentrations in breast milk: associations with infant crying	S299
Adolescence-malnutrition in rats disrupts testosterone homeostasis leading to metabolic and pancreatic-function impairment at adulthood	S300
Cortisol/cortisone ratio in early childhood in very-low-birth-weight infants and term born infants	S300
Stress and Inflammation in Children	
Life-course paths to metabolic health	
Developmental origins of "aging": an epidemiological perspective	
Child maltreatment as a predictor of adult physical functioning in a prospective British birth cohort	
Skin fibroblasts enable study of life course developmental programming mechanisms in a baboon model of intrauterine growth restriction (IUGR)	
Accelerated age-related life-course changes in plasma lipids in offspring of poorly nourished baboons: biological (programmed) versus chronological age	. S303
Caloric restriction at adulthood reverses hepatic dysfunction induced by transient postnatal overfeeding in mice.  A possible role of SIRT-1	S304
Influence of nutritional intervention in early life behaviour in healthy children at 2.5 years	S304
Gestational vitamin D supplementation and offspring bone development: translation from observation to intervention	
Influence of maternal fatty acids status on offspring cardio-metabolic health	S305

Perinatal RXRA DNA methylation is altered by maternal gestational vitamin D supplementation: findings from the MAVIDOS trial	S306
Placental uptake and metabolism of vitamin D; a potential mediator of fetal growth?	S306
Improving nutritional status in pregnant teenagers: The Babies, Eating and LifestyLe in Adolescence Study (BELLA)	S307
Maternal protein restriction around conception increases foetal neuronal differentiation and is associated with adult memory deficits.	S308
Novel animal models of placental dysfunction in DOHaD research	S308
Early life impacts on reproductive programming: effects in female ovarian development and function	S308
Time-dependent evolution of non-alcoholic fatty liver disease in young-to-adult MSG-obese mice	S309
Maternal undernutrition increases fibrosis in heart of the late gestation sheep fetus	S309
Maternal low intensity physical exercise changes insulin milk composition and prevents obesity in offspring rats exposed to early overnutrition.	S310
The impact of altered IL-1 signalling on metabolic dysfunction during pregnancy	
Resveratrol prevents the development of hypertension programmed by maternal plus post-weaning high-fat consumption in male offspring	
	S312
Association of pre-pregnancy body mass index with future offspring metabolic profile: findings from three independent European cohorts	S312
The role of maternal obesity in the associations of pregnancy complications with childhood overweight and obesity.  Individual participant data meta-analysis	S313
Influence of maternal vomiting during early pregnancy on lung function and asthma at school-age	
Maternal obesity influences offspring obesogenic adipogenesis but not developmental adipogenesis in mice	S313
Glycaemic load and index in pregnancy are associated with postnatal, but not pre-pregnancy, depressive symptoms; Southampton Women's Survey longitudinal data	S314
Maternal fish intake during pregnancy and child growth: a prospective cohort study in Norway	S315
DOHaD and Society: Responsibility, Participation and Public Health	S316
Public health and DOHaD – parallels with communicable disease prevention	S316
Social responsibility and DOHaD	S316
Public participation and DOHaD	S316
Effects of pre-pregnancy BMI and current adiposity on cardiometabolic and leptin profiles during early pregnancy	S316
Effect of a lifestyle intervention in obese infertile women on cardiometabolic health and quality of life: A randomized controlled trial	S317
A double hit preeclampsia model results in sex specific growth restriction patterns	S317
Early age at menarche as a risk factor for developing gestational diabetes: the mediating role of preconception body mass index	S317
Maternal weight at birth and risk of pregnancy complications	S318
Second trimester serum metabolomic profiles can predict excessive gestational weight gain	S319
Developmental origins of perimenopausal disorders: evidence from a Swedish cohort	
Preconceptional maternal anxiety is associated with childhood emotional problems, independent of the effect of post-natal depression	
Antenatal synthetic glucocorticoid exposure modifies gene expression at the post-natal blood-testis barrier	

Breast milk exosomal microRNA: A method of listening-on on the dialogue between mother and infant	S322
Early life a priori and a posteriori dietary patterns and celiac disease autoimmunity in children from the Generation R	
Study	S322
Duration and exclusiveness of breastfeeding and risk of childhood atopic diseases	S323
Role of breastfeeding on epigenetic mechanisms underlying early-life growth development and the development origin of obesity	S323
Breast milk concentrations of brominated flame retardants and perfluorooctane sulfonate are associated with decreased gut microbiota diversity in infants	S324
Designing complex behavior change interventions	S324
Shortcuts to randomised evidence: Using existing trials in early life for follow-up studies	
Vitamin D supplementation in pregnancy to prevent asthma in offspring - Results from the Vitamin D Antenatal Asthma Reduction Trial	S325
A transient gestation-specific mouse model of hyperglycemia offers unique opportunities for nutritional and pharmacological interventions in dams and offspring	. S326
Does supplementation of the postweaning diet reverse offspring metabolic and immune dysfunction due to poor maternal nutrition in mice?	S327
Antenatal non-medical risk assessment and care pathways to improve pregnancy outcomes: a cluster randomized controlled trial	S327
LifeLab Southampton: Improving science literacy as a tool for increasing health literacy in teenagers - a pilot cluster-randomised controlled trial	S328
Early risk factors for respiratory morbidity	S328
Fatty acids in pregnancy and childhood asthma	S329
Early-life respiratory tract infections and the risk of school-age lower lung function and asthma: a meta-analysis of 37 Europeohorts	pean S329
Prenatal omega-3 LCPUFA supplementation and longitudinal allergic disease symptoms and sensitisation in offspring to 6 years of age	S330
Epigenome wide meta-analysis reveals association of reduced DNA methylation at 14 CpG sites with childhood asthma	. S330
Individuals born preterm more likely to be admitted for pneumonia - follow-up until adulthood of the Finnish 1987-1990 birth cohort.	. S331
Assessment of lung function among adult members of the New Delhi Birth Cohort, India	S332
Early adversity, brain development and childhood behavioural problems. Research findings from the Generation R Study	. S332
Traffic air pollution, APOE e4 status and neurodevelopment in school children	S332
Maternal plasma mineral concentrations and children's neurocognitive development in the first two years of life: the GUSTO study	
IGF2 DNA methylation is associated with externalizing behaviours in adolescence independent of BMI	
Effect of inadequate iodine status in pregnant women on infant developmental skills: results from the Little in Norway cohort	
Prenatal and postnatal exposure to air pollution and white matter integrity in school-age children	
Prenatal and postnatal acetaminophen use and autism spectrum symptoms in childhood	
Longitudinal models to examine changes in exposure	
Individualized growth trajectories for preterm infants using a growth trajectory calculator tool	
Assessing the merits and limitations of using fathers as a negative control exposure to test DOHaD using a Swedish	0330
case-study	S337

Postnatal growth velocity calculation: accuracy of different methods	S338
Effect of gestational age correction on association between length-for-age z-scores during infancy and cognitive development at 6 years of age	S338
A Comparison of Early Infancy Weight Velocities in Relation To Childhood Cardio-metabolic Risk Markers: Significance of Infant Peak Weight Velocity	S339
Understanding the direct and BMI-mediated association between birth weight and childhood cardio-metabolic health - findings from a prospective birth cohort	S340
Programmed Hyperphagia in Small for Gestational Age Offspring via Epigenetic DNA Methylation-mediated Neuronal Differentiation	S341
Maternal alcohol consumption during pregnancy and offspring epigenome-wide DNA methylation: findings from the Pregnancy and Childhood Epigenetics (PACE) Consortium	S341
DNA methylation of Musashi RNA binding protein 2 (MSI2) associates with subcutaneous fatness, early life environment and childhood growth trajectories.	S341
Long-term effect of breastfeeding on DNA methylation profiles in adults	S342
Horvarth DNA methylation biological age at the transition from adolescence to adulthood: A measure of dynamic response to environmental stress	S343
Telomere length: Population epidemiology and concordance in 11-12 year old Australians and their parents	
A case/control study of epigenome-wide DNA methylation in infants with cleft lip and palate in California	S344
Hypertensive disorder of pregnancy and DNA methylation of newborns: Findings from the Pregnancy and Childhood Epigenetics (PACE) Consortium	S345
Epigenetic marks in neonates are associated with BMI and insulin sensitivity in early childhood	
Cardiac remodeling in preadolescents who suffered fetal growth restriction	
GLP-1 profile during glucose tolerance test in gestational diabetes: a prospective case-control study	S347
The role of maternal and offspring lifestyle behaviours in the relationship between depression and adiposity in young adults	S348
Life course evolution of body fat and its association with insulin resistance among rural Indian boys and girls	S348
Maternal circulating PIGF levels in relation to insulin sensitivity and -cell function in infants born small-for-	0,510
gestational-age	S349
Prenatal environmental exposure and child blood pressure: an exposome-wide approach in HELIX project	S349
Ideal cardiovascular health and intermediate risk phenotypes in child-parent dyads: the Longitudinal Study of Australian Children	S350
Maternal treatment with the mitochondria-targeted antioxidant MitoQ prevents the programming of cardiac dysfunction in adult offspring by developmental hypoxia	S351
Fish-oil supplementation in pregnancy causes a proportional increase in body bone- fat-, and lean- mass at 6 years: Randomized, Controlled, Double-Blind, Clinical Trial	S351
How to write a paper for a high impact journal	S352
Klotho's effects on cognition and brain in early life	
Maternal prenatal aggression and sex differences in offspring externalizing behavior and substance use	
Timing of natural menopause remains associated with verbal memory across adult life after controlling for childhood cognitive ability.	
Too small to sleep: The longitudinal associations between maternal depressive symptoms and child sleep in SGA children	
The genetic architecture of differential susceptibility to childhood adversity; a genome-wide approach	
Psychological distress and suicidal ideation in Indigenous Australians from adolescence to young adulthood	

Describing objectively measured and maternal reported infant and toddler physical activity levels and patterns at 3, 6, 12, 

Voluntary exercise during development can improve eating behavior and metabolism in intrauterine growth-restricted animals	S370
Early nutrition and subsequent risk of overweight and obesity in 8-year old children - a MoBa cohort study	S371
Association of vitamin D status in pregnancy with adiposity and cardiometabolic traits in childhood: the Rhea pregnancy cohort, Crete, Greece.	S371
Malnutrition in late-pregnancy malprograms to hyperphagia-pattern and obese-phenotype in adult rat-offspring	
Placental hypoxia-regulating network in relation to birth weight and ponderal index: the ENVIRONAGE Birth Cohort Study	S373
Association of rs11708067 polymorphism in ADCY5 with birth weight, glucose, insulin and neonatal insulin resistance	S373
Influence of known genetic variants associated with adiposity on childhood abdominal, liver and pericardial fat assessed by Magnetic Resonance Imaging	S373
Interaction between birth weight and the PLIN4 variant rs8887 on impulsivity at 5 years old children	S374
Effects of FTO and PPAR? variants on intrauterine growth restriction in a Brazilian birth cohort	S374
The postnatal renal transcriptome is differentially affected by various intrauterine deficiencies in male rats	S375
Effects of cumulative childhood cardiovascular risk factor exposure on transcriptomics in adulthood: The Cardiovascular Risk in Young Finns Study	S375
	S376
Influence of in utero metal exposure on human placental gene networks and fetal growth	S376
Widespread prevalence of a CREBRF variant associated with weight and height in Polynesian children	S377
Perinatal over- or undernutrition programs adipogenesis: Mechanism of a common Wnt10b/PPAR pathway mediated via differential -Catenin signaling	S377
Molecular determinants of design optimality in cardiopulmonary systems: Sprouty2 coordinates airway and vascular branching programmes in mammalian lung development	S378
FUT2 gene variants are associated with reported gastrointestinal and respiratory illnesses during infancy in the Southampton Women's Survey (SWS)	n S378
Prospective study of PPARG2 Pro12Ala polymorphism effect on immune system in pregnant women and their offspring: T PREOBE study	Γhe S379
Genetics of birth weight and other anthropometric traits and their influence on future risk of cardio-metabolic traits in Indians	S379
Polymorphism frequency of vitamin D receptor in pregnant women: impact on vitamin D plasma concentration and antropometric parameters of newborn	S380
AMPK pathway in placenta and its relationship with birth weight alterations and maternal nutrition status	S380
Understanding barriers and enablers of a complex pre-conception intervention in Malaysia - preliminary findings from a process evaluation	S381
Effects of a preconception lifestyle intervention in obese infertile women on diet and physical activity: results of a randomized trial	S382
Narrative review of reviews of preconceptionalinterventions to prevent increased risk of obesity andnon-communicable diseatin children	
Childhood and adulthood preconception exposures influence smoking cessation during pregnancy and in midlife	S383
Effects of Antibiotic-Disruption of the Seminal Fluid Microbiome on Male Reproductive Health and DOHaD Changes in Resulting Offspring	
Beneficial effects of sympathomimetics on semen quality in humans	

Insertion alternative splicing variant of androgen receptor suppresses human ovarian granolusa cells apoptosis via up-regulating miR-125b expression independent of androgen	S385
The effects of a preconception lifestyle intervention in obese women on offspring development and behavior	S385
Awareness and communication with low health literate clients in preconception care: a problem analysis	S386
POHaD - Paternal Origins of Health and Disease: Paternal obesity and early embryonic development	S387
Pre-pregnancy dietary, lifestyle and reproductive risk factors of gestational diabetes in an Australian population-based cohort	S387
Reproductive parameters and oxidative stress biomarkers of male Wistar rats prenatally exposed to cigarette smoke	S388
Lack of insulin response in human umbilical vein endothelial cells from pregestational maternal obesity may result from endoplasmic reticulum stress	S388
Association between maternal gestational weight gain and fetal growth in Japanese underweight women	S389
The joint effect of maternal smoking during pregnancy and pre-pregnancy overweight on term birth weight of the offspring	S389
Maternal obesity in pregnancy is associated with reduced heart rate variability in neonates	S390
Mothers' weight before pregnancy alters newborns' telomere-related gene expression at birth	S390
Psychological distress, body mass index and weight gain in pregnant women	S391
Pregnancy exercise and nutrition research study (PEARs) with smartphone app support	S391
Exercise before and during pregnancy alters the microbiome and glucose intolerance in females born growth restricted fed a high-fat diet	S392
Gestational weight gain and its relationship with the birthweight of offspring	S392
Can voluntary exercise in rat offspring reverse renal changes caused by maternal obesity?	
Influence of maternal obesity during pregnancy on offspring cardio-metabolic health and disease	
Maternal obesity, pro-inflammatory cytokines and offspring blood pressure and obesity	S394
Association between maternal weight gain during pregnancy and offspring anthropometric outcomes during the first 18 months of life	S394
Breastfeeding durations relate to maternal body size and infant care help across 21 small-scale human populations:  Implications for public health	S395
Low physical activity is associated with lower birth weight among rural pregnant women in Central Malaysia	S396
Breastfeeding and exclusive breastfeeding are associated with maternal body mass index and social status among Norwegian mothers.	
Dairy lipids and probiotic L. fermentum in infant formulas differently program gut microbiota and physiology in a minipig model	S397
Birth mode and infant gut microbiota sequentially mediate the association of maternal overweight with childhood overweight	. S397
Absence of intestinal microbiota in early life does not critically affect cholesterol metabolism in mouse offspring	S398
Role of breastmilk microbiome in colonisation of the infant gut: a systematic review	S399
Diet-induced cholestasis modifies the maternal gut metabolome and microbiota, resulting in offspring metabolic impairment, altered intestinal metabolites and bacteria.	S399
Gut microbiota and overweight at the age of 3 years	S400
Males born growth restricted and fed a high-fat diet have altered microbiome and metabolic dysfunction	S400
Vitamin D dietary intakes is among the most potent modifiers of gut microbiota in pregnant women- the prospective NoMIC cohort	S401
Gut microbiota in healthy Japanese infants and young adults born by C-section	S401

Differences in breast milk microbiomes between HIV-infected women on ART and non-infected women living in South Africa	. S402
Delivery type is associated with microbiota composition and body adiposity in young adults of the Nutritionists Health Study	. S403
Gut microbiota composition in children and adults: Ruminicoccaceae vs Lachnospiraceae	. S403
Functionality and structure of neonatal gut microbiota community depend on pre-pregnancy maternal weight	. S404
Influences of maternal obesity on gut microbiome and brain structure and function	. S404
Prevalence of pathogenic bacteria in open and surgical wounds of patients attending hospitals in Buea municipality	. S405
Early diet with improved LCPUFA content protects the brain against the early-life-stress induced deficit by modulating hippocampal neurogenesis and microglia	. S405
Maternal seafood intake during pregnancy and child neurodevelopment until age 5 years: a prospective cohort study in Norway	. S400
Maternal use of iodine containing supplements in pregnancy is associated with increased risk of child attention-deficit/	. S407
Micronutrients during pregnancy and child psychomotor development: opposite effects of Zinc and Selenium	. S408
Effect of early life dietary supplementation with prebiotic and omega-3 poly-unsaturated fatty acids on behaviour and immunomodulation in healthy mice.	. S408
Does DHA supplementation in preterm infants in the neonatal period improve attention at 18 months' corrected age?	. S408
Developmental programming of hippocampal adult neurogenesis to maternal high fructose diet: focus on HDAC4-associated neuroinflammation	. S409
Cord serum concentrations of 25-hydroxy vitamin D with growth and neurodevelopment during infancy	. S410
Maternal Nutritional Status and Fetal Brain Development	. S410
Associations between maternal diet during pregnancy and early childhood development in urban South Africa:  A proposal	. S410
Association of psychomotor development with feeding practices and nutritional status of 6-month-old infants in a peri-urban community of South Africa	. S411
Exposure to maternal high fat diet programs reward behavior in the offspring	. S411
The effect of maternal vitamin D depleted diet during gestation on the behaviour and activity of young adult mouse offspring	. S412
Hearing loss among 9- to 11-year-old children in the Netherlands: the Generation R Study	. S412
Social network as a health tool to promote child development	. S413
Perinatal vulnerability leads to multiple poor health and development outcomes in the first 1000 days of life	. S413
Risk factors for social-emotional development and behavior problems at age two: Results from the All Our Families pregnancy cohort.	. S414
The role of perinatal essential fatty acids in attention deficit and hyperactivity disorder symptoms	. S414
Children's leisure activities are associated with their behavioural characteristics aged Five: Lifeways Cross-Generation Cohort Study, Republic of Ireland	. S415
Differential effects of maternal and postnatal obesity on activity, anxiety and memory in adult mouse offspring	. S416
Maternal lipid profiles during early pregnancy and eating behaviour in the offspring	. S416
Longitudinal study of the effect of maternal and postnatal obesity on motivation for appetitive reward in male and female offspring.	
Developmental paths of healthy term infants in the I-Chat study. Is plagiocephaly causing developmental delay?	
Antecedents of worry in mothers of children who are choosy at 15 months of age	

Index of abstracts' titles	S475
Prenatal programming by maternal age: Fetal neurobehavior and birth outcomes	S419
Sex of older siblings and cognitive function.	S419
Neurodevelopmental delay associated with infancy weight gain among Chinese term-born infants	S420
Developing brain function for age curves from birth using novel biomarkers of neurocognitive development: The BRIGHT Study	S42
Pregnancy risk factors in autism: a sibling matched case-control study in Italy	S42
Effects of maternal fatty acids patterns during pregnancy on prospectively measured circulating blood lymphocytes in children: the Generation R Study.	S42
Protocol to determine effects of maternal iron and n-3 fatty acid deficiency on the epigenome and gut microbiome in rats	S422
Infant milk feeding and incidence of food allergies in the first eight years of life in the EDEN mother-child cohort	S423
Effects of pre- and postnatal iron and n-3 fatty acid depletion, alone and in combination, on bone development in rats	S423
Multiple prenatal exposures and airway inflammation in early adolescence	S424
Folic acid supplementation during different periods of the life course induces distinct effects on the mammary gland transcriptome	S425
Prevalence of B12 deficiency is common in early pregnancy in a multi-ethnic UK population	S425
The associations between maternal nutrition and lifestyle knowledge and a healthy eating index in pregnancy	S420
Influences on where women learn about what to eat during pregnancy: Preliminary evidence from the Mothers to Babies (M2B) study	S420
Governance of WASH in sub-Saharan Africa and associations with nutritional status in children under five years:  A systematic review	S427
Early life biomarkers in the context of a nutrition transition: a cohort study from the Bolivian Amazon	S428
Iodine status of complementary-fed infants receiving lipid-based nutrient supplements in South Africa: a randomized controlled trial.	S428
The Effect of Periconceptional Multi Micronutrient Supplementation in Preventing Maternal DNA Damage	S429
Materno-fetal transfer of stable isotopes labelled fatty acids in obese pregnant women	S429
Gene expression profile changes in mice fatty liver induced by undernourishment in utero with or without endoplasmic reticulum stress alleviation	S430
Dandropanax Morbifera Extracts reduced the inflammation of digestive-related disease in animal models	S430
How can we improve recruitment to clinical trials during pregnancy? A mixed methods investigation	S43
Why do some pregnant women engage more than others with interventions to improve diet and increase physical activity?	S43
Effects of a lifestyle intervention during pregnancy and first postpartum year - 1-year follow-up of the RADIEL study	S432
Mobile health technology-based lifestyle coaching during the (pre)pregnancy window is less effective in women living in a deprived neighbourhood	S433
A realist review of pregnancy lifestyle interventions: What are the features of an effective pregnancy intervention?	S433
Improving periconception nutrition using the mHealth program Smarter Pregnancy: a randomized controlled trial	S434
A systematic review of school-based educational interventions to improve diet, physical activity, BMI and body composition in adolescents (aged 10-19)	S435
Postpartum support: an existing gap in prenatal and postpartum care	S435
How do government policies from England and Wales meet the international standard for preventing non-communicable diseases through nutrition/physical activity initiatives?	S430

Reducing growth and developmental problems in children, design of a postnatal risk assessment in preventive child

Preliminary results from a multi component kindergarten-based intervention to promote healthy diet in toddlers.  A cluster randomized trial	S437
A cluster randomized web-based intervention trial among one-year-old children in kindergarten to reduce neophobia and promote healthy diets. A description	S438
Longitudinal child-oriented dietary intervention-association with parental diet and cardio-metabolic risk factors.  The Special Turku Coronary Risk Factor Intervention Project	S438
Music therapy may increase breastfeeding rates among mothers of premature newborns: a randomized controlled trial	S439
Effects of enteral glutamine supplementation on neurodevelopmental outcomes in very preterm children at thirteen years of age	S439
Women's engagement with an evidence-based nutrition and lifestyle website during pregnancy and the impact on neonatal outcomes: A pilot study	S439
Predictors of Stunting among Children Aged 6 to 59 Months in Aksum Town, North Ethiopia: Matched Case Control Study	S440
Associations between antenatal glucocorticoid treatment and child growth at 3 years of age	S440
Comparison of total nephron number in normotensive Japanese born during and after World War 2	S441
New views on breast cancer through the pubertal window	S442
Trajectories of life course circulating corticosterone levels in the rat are determined by developmental programming and influence length of lifespan	S442
Associations between birth weight and adult outcomes in a large population sample: the UK Biobank	S443
Do universal plagiocephaly prevention strategies influence head shape development in healthy term infants?: A Western Australian experience.	S443
Determinants of birth weight associated with transgenerational effect	S444
Does grandmaternal smoking during pregnancy have an effect on her grandchild's birth weight?	S445
Maternal diseases and life-style risk factors during pregnancy and newborn head circumference in a Brazilian birth cohort	S445
Growth Patterns from Birth to 24 Months in Chinese Children: Findings Based on Multicenter Birth Cohort Studies	S446
The impact of caesarean section inflammation on infant's length	S446
Ethnic differences in height growth trajectories in contemporary children and adolescents: findings from the UK Millennium Cohort Study	S447
Growth across life course and cardiometabolic risk markers in 18 years old adolescents: the 1993 Pelotas Birth Cohort	S447
The effect on early life growth on the size, tempo and velocity of adolescent growth	S448
Direct comparisons of relative morbidity caused by various disorders in the populations of Chile and one of Brazil's southern states.	S448
Direct comparisons of relative mortality caused by various disorders in the populations of Argentina and southern region	C//C