

Women's and Children's Health Supervisors (February 2020)

| Supervisor | Contact | Department Area | Current Research | Research areas/topics of interest | Field/s of Expertise | Potential future research | Collaborating Departments |
|---|--|----------------------------|---|---|--|---|---|
| Dr Rick Audas (Senior Research Fellow) | rick.audas@otago.ac.nz | Paediatrics | Using Statistics New Zealand Integrated Data Infrastructure to examine whether children reach key developmental milestones | Obesity Mental Health Literacy Autism Spectrum Disorder | Big Data Childhood Development Health Economics Health Policy Health Services Research | Intergenerational impact of disease Family dynamics Microsimulation | Preventive and Social Medicine |
| Dr Sara Boucher | sara.boucher@otago.ac.nz | Paediatrics | Values-guided diabetes self-management and using a multiphase optimisation strategy (MOST) framework to develop a multicomponent intervention for young people with unhealthy diabetes | Diabetes technology Sustainable behaviour change mHealth Acceptance and Commitment Therapy Intuitive Eating | Behavioural Nutrition Intervention Science | Using a multiphase optimisation strategy (MOST) framework to develop a multicomponent intervention for young people with unhealthy diabetes Qualitative explorations of MiaoMiao users | Biostatistics Uni Paediatrics (UoO, Christchurch) Paediatrics and Child Health (UoO, Wellington) Multiple District Health Boards |
| Dr Robert Crumb (Joint Clinical Lecturer) | robert.crumb@otago.ac.nz | Obstetrics and Gynaecology | Software Modelling Techniques in Women's Health Research Current Focus on modelling Caesarean Section at a population level | Use of Computer Simulations in Women's Health Education. | Extensive Surgical Expertise with focus on Minimally Invasive Techniques and use of Technology including Training Experience in Creative Solutions in Resource Poor Environments including Training Ultrasound in Gynaecology and Obstetrics (Point of Care Ultrasound) including Training Extensive experience in United States health environment including leadership roles in private practice, hospital, academic, and federally funded clinic environments. Experience in work and training in developing world health provision environment | Incorporation of GIS in Women's Health Research Modelling Moodle and Simulation in Women's Health Education | Diane Coffey, Ph.D. University of Texas, Austin Department of Sociology and Population Research Center |
| Dr Celia Devenish (Clinical Senior Lecturer) | Celia.Devenish@southernhb.govt.nz | Obstetrics and Gynaecology | Advancing understanding and management of obstetric conditions associated with poor outcomes Research into excelling in the delivery of obstetric care through examining best methods Audit of Early Pregnancy Loss Clinic Audit and trial of Labour Induction techniques Maternal and Placental HPV association with adverse outcomes in pregnancy, especially Pre-term labour, Foetal Growth Restriction and Pre-Eclampsia and diabetes and obesity | Obstetrics and Gynaecology Obstetric care and best methods | Obstetrics and Gynaecology | | Medicine Pathology Preventive and Social Medicine Anatomical Pathology Service |

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| Dr Mavis Duncanson (Senior Research Fellow) | mavis.duncanson@otago.ac.nz | NZCYES NZPSU | Child Poverty Monitor. Health status of children and young people in Aotearoa. Monitoring equity for Maori children and young people. Surveillance of acute flaccid paralysis and other rare paediatric conditions. | Determinants of health Health equity Chronic health conditions in childhood Administrative datasets | Epidemiology Public health Population health Health professional education | Relationship between child ill health and education outcomes Health of children and young people in State care | |
| Dr Liza Edmonds (Neonatologist & Paediatrician; Clinical Senior Lecturer; Clinical Director Child Health (Otago) & Neonatology Director Leader (district)) | Liza.Edmonds@southerndhb.govt.nz | Paediatrics | He Tamariki Kokoti Tau – Maori Preterm Qualitative & Quantitative (Victoria University) Korowai Mannaki project (Victoria University) Methamphetamine Programme (Victoria University) Clinical Practice Improvements (NICU audit/ intervention) TITANS local PI | Neonatology Neonatal Developmental care Attachment Medical student teaching Maori health | Neonatology | Retrieval audit - 10 year experience in one unit Attitudes to antenatal alcohol exposure Antenatal Anticonvulsant Exposure & Dentition Project | University of Victoria Townsville Neonatal Intensive Care Unit Department of Hauora Maori Department of Dentistry Department of Preventive & Social Medicine. |
| Associate Professor Barbara Galland (Research Associate Professor) | barbara.galland@otago.ac.nz | Paediatrics | Impact of sleep disorders in children and adolescents on daytime functioning Measuring sleep and breathing, cognitive development, and learning Child/ adolescent sleep and obesity | Sleep related breathing disorders Autonomic nervous system function Sudden infant death syndrome Chronic fatigue syndrome | Sleep | | Psychology Medicine Medical and Surgical Sciences Oral Science Dentistry Preventive and Social Medicine |
| Associate Professor Jean Hay-Smith | jean.hay-smith@otago.ac.nz | Obstetrics and Gynaecology | Systematic reviews of pelvic floor muscle training interventions OPAL; Multicentre randomised trial of the effectiveness and cost-effectiveness of basic versus biofeedback-mediated intensive pelvic floor muscle training for female stress or mixed urinary incontinence (or OPAL-optimal adherence long-term) www.opaltrial.co.uk The experience of urinary incontinence (a meta-synthesis) APPEAL (Antenatal preventative pelvic floor exercises and localisation deliver of pelvic floor muscle exercise education for women) Interprofessional teamwork: role and identity as a team worker | Conservative management of urinary incontinence Health behaviour change and adherence Interprofessional teamwork | Research methodology (evidence synthesis such as systematic reviews with meta-analysis/ Cochrane systematic reviews and meta synthesis of qualitative research; qualitative methods; randomised trials; mixed methods) | | Rehabilitation (UOW) General Practice & Rural Health Primary Health Care & General Practice (UOW) |

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| Dr Zandra Jenkins | zandra.jenkins@otago.ac.nz | Clinical Genetics Group | Rare genetic disorders associated with defects in neuronal development and skeletogenesis, allowing elucidation of the underlying molecular processes perturbed in causative genes | Developmental cell biology underlying genetic disorders of skeletal and neurogenesis. | Cell Biology | Genetic disorders of Development | Pathology Department |
| Dr Gabrielle McDonald (Senior Lecturer) | gabrielle.mcdonald@otago.ac.nz | NZ Mortality Review Data Group | Mortality review – predominantly in children & young people and perinatal & maternal | Health Equity SUDI Suicide in children and young people Preventing premature death | Child and youth mortality review | Cross sector collaboration for death prevention, self-harm surveillance | Psychological Medicine Preventive and Social Medicine Woman's Health Kōhatu, Centre for Hauora Māori |
| Dr Adam O'Neill (Research Fellow) | adam.oneill@otago.ac.nz | Clinical Genetics Group | Analyses into the genetic heterogeneity of neurodevelopment conditions | Profiling molecular programmes of brain development in vitro and in vivo Developing frameworks for interpreting genetically heterogeneous neurodevelopment conditions Investigations into cross-disorder overlap among developmental brain disorders | Stem cells, brain development, genetics, proteomics | Brain repair Developmental concepts in psychiatric genetics | Helmholtz Center Munich, Germany Harry Perkins Institute of Medical Research, Australia Max-Planck of Psychiatry, Munich, Germany Max-Planck of Biochemistry, Munich, Germany |
| Dr Helen Paterson (Senior Lecturer, Head of Section Obstetrics and Gynaecology) | helen.paterson@otago.ac.nz | Obstetrics and Gynaecology | Obesity and weight management in pregnancy Contraception Long acting reversible contraception Undergraduate teaching in Women's Health | Abortion Contraception Weight in Pregnancy Undergraduate teaching in Women's Health | | | Pharmacovigilance Medical Education Group |
| Associate Professor Ralph Pinnock | ralph.pinnock@otago.ac.nz | Paediatrics | Clinical reasoning Simulation | Web-based learning The clinical learning environment Curriculum development | Web-based learning The clinical learning environment, curriculum development | Artificial intelligence | Dept of Medicine, Uniformed services University, Maryland USA Centre for Health Science Education, University of Auckland James Cook University, Townsville, Australia |
| Professor Stephen Robertson (Cure Kids Chair in Child Health Research) | stephen.robertson@otago.ac.nz | Clinical Genetics Group | Study of the genetics of malformations and disorders of development. Use of genomics in healthcare Ethics of the use of genetics and genomics in healthcare Disorders of facial recognition and movement | Genetics of Developmental Disorders in Childhood | Clinical and molecular genetics Developmental Genetics | | Pathology Psychology Biochemistry Microbiology and Immunology Anatomy |

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| Associate Professor Michael Stitely (Head of Department of Women's and Children's Health) | michael.stitely@otago.ac.nz | Obstetrics and Gynaecology | 3D printing in medicine and surgery Prophylactic antibiotics in Caesarean delivery Riboflavin prior to cystoscopy Wound healing in Caesarean delivery | Surgical instrumentation Medication use in pregnancy | Female pelvic reconstructive surgery | Several specific device/equipment designs for use with 3D printing Future collaboration with the Surgery Department | |
| Professor Barry Taylor | barry.taylor@otago.ac.nz | Paediatrics | The use of "big data" to answer questions about child health Prevention and management of unhealthy child weight | Sudden unexpected death in infancy (SUDI) Sleep Disorders Prevention of obesity Diabetes | | | |
| Dr Emma Wade | emma.wade@otago.ac.nz | Clinical Genetics Group | The genetics of very rare bone dysplasias with the hope of finding novel mechanisms of skeletal development and homeostasis A family of proteins called the filamins that play a key role in bone and joint biology, and are known to cause a wide range of human skeletal dysplasias Mouse models of human disease Mouse models in which we are able to manipulate and track the expression of key gene Trying to understand how we might harness these key proteins to enable us to treat common disorders of the skeleton. | Human genetic disease Bone development and disease Cytoskeleton biology Cell signalling | Human Genetics Molecular Biology Mouse Genetics Skeletal Biology | Characterising bone and joint development in a variety of mouse models using state of the art imaging techniques and next-generation gene expression analyses | Pathology Biochemistry |
| Dr Wenhua Wei (Senior Research Fellow) | wenhua.wei@otago.ac.nz | Clinical Genetics Group | Using primate specific information to enhance genetic studies of human brain developmental disorders Studying roles of large structural variants in rare developmental disorders Trans-ethnic meta-analysis of gout | Statistical genetics Bioinformatics Genetic Epidemiology | Complex disease genetics Genetic interactions Sequencing and big data analysis | Develop genetic epidemiology biomarkers to enhance early identification of children at risk of reading disabilities Trans-ancestral dissection of genetic architecture of abdominal aortic aneurysm AAA Leveraging primate-specific genomic information to enhance genetic studies of human diseases | Biochemistry Medicine Pathology Surgery English and Linguistics |
| Associate Professor Ben Wheeler (Head of Section Paediatrics/ Paediatric Endocrinologist) | ben.wheeler@otago.ac.nz | Paediatrics | Diabetes research focused on technology, glucose monitoring, and psychosocial aspects that affect glycaemic control Vitamin D and bone health research. Childhood nutrition, including newborn vitamin K prophylaxis | | Diabetes Endocrinology Bone Health Nutrition/Vitamin K | Paediatric Diabetes and Endocrinology Nutrition/Vitamin K | Human Nutrition Preventive and Social Medicine Pharmacy Women's Health Endocrinology Bioethics Dental School Other national and international collaborators. |