



University of
South Australia

EARLY CAREER RESEARCHER DEVELOPMENT PROGRAM



2019 Cohort Members



Dr Zachary Anesbury

Ehrenberg-Bass Institute for Marketing Science, School of Marketing

Dr Zac Anesbury is a marketing scientist who has a knack for identifying gaps within the existing literature, with the ability to build research teams who can address that gap and can publish in top-tier (but not top 4) journals.



Dr Peer Arts

Genetics and Molecular Pathology, Centre for Cancer Biology, School of Health Sciences

Dr Peer Arts has always been intrigued by implementation of novel technologies and methodologies with a goal to better understand the molecular mechanisms of human diseases. The patient-oriented studies in genetics and immunology have shown that understanding the biological defects causing disease is essential to determine efficient therapeutic targets. Peer's goal is to apply state-of-the-art multi-omics (genomics, transcriptomics, metabolomics) approaches to understand the pathogenesis of different diseases.



Dr Richmond Asamoah

Future Industries Institute, Minerals and Resources Engineering Research Strand

Dr Richmond Asamoah is a mineral processing engineer with over eight years in-depth knowledge of and hands-on experience in mineral characterisation and extractive metallurgy in tandem with molecular chemistry and interfacial science. Richmond has specialised in diagnostic and prognostic skills through batch laboratory operations and continuous real plant data analysis for industry-specific methodical investigations, and simulation and modelling of process flowsheets.



Dr Richard Bade

Australian Centre for Precision Health (Population Health Chemistry), School of Pharmacy & Medical Sciences

Dr Richard Bade is an analytical chemist who develops methods to detect compounds of specific interest in wastewater with a current focus on illicit drugs and new psychoactive substances. Wastewater analysis is wide-ranging and can be used to monitor drug consumption in a community, act as an early warning system as well as evaluate environmental risk.

**Dr Clint Bellenger**

Alliance for Research in Exercise, Nutrition and Activity, School of Health Sciences

Dr Clint Bellenger is a sport and exercise physiologist who investigates the effect of training and recovery on athletic performance. Specifically, Clint is interested in the various tools and variables that can be used to identify training-induced fatigue and recovery from such fatigue, and the periodisation of recovery during phases of athletic training in order to optimise physical performance.

**Dr Mark Catley**

Body in Mind Research Group, School of Health Sciences

Dr Mark Catley is a pain sciences researcher with a physiotherapy background. Mark's research focuses on the role of communication and education in pain management, the utility and validity of pain-related screening and assessment tools and the role of sensory impairments in chronic pain conditions.

**Dr Scott Coussens**

Centre for Cognitive and Systems Neuroscience, School of Psychology, Social Work & Social Policy

Dr Scott Coussens is a cognitive neuroscientist with a focus on the application and methodologies of EEG. Scott works specifically on investigating what this can tell us about the working of the human mind in wake and sleep.

**Dr Sarah Cox**

Australian Centre for Child Protection

Dr Sarah Cox is a social policy researcher with a clinical psychology background. Broadly the focus of Sarah's research is child protection and complex trauma with a specific focus on the design and evaluation of interventions for children and families experiencing multiple and complex problems.

**Dr Rachel Curtis**

Alliance for Research in Exercise, Nutrition and Activity, School of Health Sciences

Dr Rachel Curtis is a behavioural scientist with a background in psychology. Rachel's research focusses on behavioural epidemiology, in particular psychosocial determinants (and outcomes) of health behaviours such as physical activity.

**Dr Doreen Donovan**

School of Art Architecture and Design, & Design Research for Health and Wellbeing: Research Cluster

Dr Doreen Donovan is a communication design researcher, focussing on design for behaviour change in relation to sustainability, health, sustainable consumption: in particular with children and young people through Participatory Action Research and co-design.

**Dr Lesley-Anne Ey***Australian Centre for Child Protection, School of Education*

Dr Lesley-Anne Ey is an early childhood educator who researches around social issues relating to child protection and education: in particular bullying and early childhood and children's problematic sexual behaviour. Lesley is particularly focused on conducting research that will inform teachers professional development, pedagogical practice, policy and curriculum development with the aim to support children's healthy development and wellbeing through education.

**Dr Paula Facal Marina***Applied Chemistry and Translational Biomaterials (ACTB) group, School of Pharmacy and Medical Sciences*

- Development of novel and biodegradable polymeric materials for therapeutic applications,
- Translation of fundamental research findings and the development of new materials into medical practice,
- Contribute to progress in novel anticancer therapies to enhance human health and well-being.

**Dr Nirmal Goswami***School of Engineering*

Dr Nirmal Goswami's research focus is broadly on the development of metal nanoclusters and the understanding on the structure-property relationship of functional nanomaterials. Nirmal uses these functional nanomaterials for biomedical application especially as nanoantibiotics.

**Dr Natalie Greenland***Australian Centre for Child Protection*

Dr Natalie Greenland is an anthropologist with broad research interests and experiences. Natalie's research interests include the formation of identities amongst marginalised children and young people, the design and delivery of consumer-informed programs for vulnerable young people and families and the utilisation of development messaging to facilitate improved psychosocial outcomes. Natalie is keen to combine her broad research interests and experiences to focus on marginalised young people's media use and identity construction.

**Dr Tammy Hand***School of Psychology, Social Work & Social Policy*

Dr Tammy Hand is a social researcher whose interests lie in the nexus of in/equality, structural and non-structural barriers, social change, reform, and young people. Tammy's research is applied and collaborative, addressing real-world problems to facilitate real change to young people's lives. Using an applied social research approach, Tammy's current work is focused on the implementation and development of an innovative place-based, collective impact model to improve social and educational outcomes for young people.

**Dr Mohammadhossein Hassanshahi***CRI, Bone Growth and Repair research Group, Pharmacy and Medical Sciences*

Dr Mohammadhossein Hassanshahi is a medical scientist who studies bone and bone marrow pathophysiology following chemotherapy. Mohammadhossein investigates how bone and bone marrow microvessels damage occur following chemotherapy treatment; and how such chemotherapy-induced bone and bone marrow damage can be attenuated/prevented.

**Dr Shane Hickey***School of Pharmacy and Medical Sciences and Cancer Research Institute*

In order to develop molecular probes to better understand disease, Dr Shane Hickey has a keen interest constructing fluorescent sensors (both chemo and bio), luminophore-tagged biomarkers, theranostic agents and antimicrobial compounds.

**Dr Claire Homan***Molecular Pathology Research Laboratory, Centre for Cancer Biology*

Dr Claire Homan is a molecular biologist, using human induced pluripotent stem cells to understand the pathogenesis of familial haematological malignancies.

**Dr Brenton Hordacre***Body in Mind, school of Health Sciences*

Dr Brenton Hordacre is a physiotherapist and researcher interested in finding better treatments and improving recovery following stroke. Brenton is particularly interested in understanding how individual brain characteristics might be used to guide treatment choices to optimise recovery.

**Dr Hamid Ilbeygi***Future Industries Institute-IDEAL research hub*

Dr Hamid Ilbeygi is a material science researcher who works in the development of novel nanomaterials for the bio sensing through electrochemical sensing for real time health monitoring via wearable devices. Hamid's research also focuses on the (a) fabrication of skin conformant wearable devices, (b) design and development of porous metal oxide for biomarker detection in human biofluids (sweet), (c) development of wearable devices for continuous health monitoring.

**Dr Colin Ireland***Cancer Care Research Group, School of Nursing and Midwifery*

Dr Colin Ireland is a nurse researcher who has an interest in improving patient outcomes and early identification of disease. While Colin has a focus on cancer research these skills are transferable to other aspects of health and wellbeing which he'd like to explore.

**Dr Vitomir Kovanovic***The Centre for Change and Complexity in Learning (C3L), Teaching Innovation Unit (TIU) and School of Education (EDS)*

Dr Vitomir Kovanovic's research focuses on the development of novel learning analytics systems using learners' data records collected by learning management systems with the goal of understanding and improving student learning. Vitomir is particularly interested in students' self-regulation of learning and understanding how trace data can be used to gain a deeper understanding of learning processes.

**Dr Nick Lawrence**

School of Information Technology & Mathematical Sciences, & Institute for Telecommunications Research

Dr Nick Lawrence is an electrical engineer who researches the idea of developing robust communication links, regardless of position and antenna orientation. The work is of relevance to today's connect society and is applicable to all environments as we move towards an evermore connect environment.

**Dr Joanna Lazniewska**

Mechanisms in Cell Biology and Diseases Research Group, School of Pharmacy & Medical Sciences

Dr Joanna Lazniewska is a cell and molecular biologist who tests novel molecular probes and studies cellular pathways in prostate and lung cancer in order to find improved diagnostic tools and potential drug targets for these cancers.

**Dr Raymond Matthews**

Behaviour-Brain-Body Research Centre, Psychology, Social Work and Social Policy

Dr Raymond Matthews is a sleep and fatigue researcher with a primary focus on neurocognitive performance in individuals as well as team environments, and interactions with technology.

**Dr Jasmine Micklem**

School of Nursing & Midwifery, Rosemary Bryant AO Research Centre

Dr Jasmine Micklem is a health and medical researcher investigating healthcare processes and outcomes. This includes monitoring the implementation of care pathways, therapeutic interventions and new technologies, with aim to improve both the efficiency and effectiveness of healthcare systems, and the outcomes and experiences of healthcare consumers, their carers and health service providers. With aim to improve the monitoring of healthcare experiences and outcomes at both individualised and aggregated levels, much of Jasmine's most recent work has been related to optimising the use of Patient-Reported Outcome Measures (PROM) and Experience Measures (PREM).

**Dr Stefan Peters**

School of Natural and Built Environments, NBERC, Forestry Innovation Research Hub

Dr Stefan Peters is a geospatial scientist who investigates spatio-temporal phenomena in built and natural environments. Stefan's research focuses on geospatial solutions – in particular remote sensing, geospatial analysis, and web cartography - to better solve environmental problems and provide meaningful insight into complex geographic data.

**Dr Miriam Posselt**

Mental Health and Suicide Prevention Research Group, School of Nursing & Midwifery

Dr Miriam Posselt is a mental health and suicide prevention researcher, as well as a psychologist. Miriam's current research focuses on evaluating suicide prevention strategies for asylum seekers and refugees and other groups at increased risk of suicide and self-harm.

**Dr Kate Rhodes**

Mental Health & Suicide Prevention; Cancer Care, School of Nursing & Midwifery

As a Registered Mental Health Nurse, Dr Kate Rhodes' research interest is to contribute to new knowledge in ways to improve the mental health of Australians. Kate's research interest as a Health Psychologist is to not only contribute to the improved health and well-being of Australians, but to also contribute to disease prevention research impacting on the high incidence of mental illness and chronic disease comorbidity.

**Dr Sam Rudd**

Future Industries Institute

Dr Sam Rudd is a chemical engineer and materials scientist working at the intersect of manufacturing, materials science and agriculture. Sam's aim is to assist industry in developing new high-tech products, that benefit society, and enable industry to grow.

**Dr Lisa Schultz**

Centre for Industrial and Applied Mathematics, School of Information Technology and Mathematical Sciences

Dr Lisa Schultz is a researcher in mathematics and statistics who is interested in a broad range of research areas, from environmental modelling and air quality to defence-related research as well as university student health and wellbeing. Lisa's research has strong links to industry, with her current research in collaboration with the Defence Science Technology Group. Lisa's doctoral research was conducted in collaboration with the South Australian Environment Protection Authority and focussed on air quality modelling and optimisation in the context of traffic-related air pollution.

**Dr Damien Sebben**

Future Industries Institute

Dr Damien Sebben is a physical chemist who is currently investigating the use of molecularly imprinted polymers for the detection and quantification of chemicals in complex mixtures and suspensions. Damien has also worked on projects looking at the wettability of fat crystals, and how altering this property can affect the functionality of whipping creams.

**Dr Michala Short**

UniSA Cancer Research Institute

As a qualified Radiation Therapist and researcher, Dr Michala Short's research involves optimising radiation therapy effectiveness through more precise radiation dose modelling and improved accuracy in radiation delivery. Michala is also interested in how radiation therapy and other cancer treatments impact patients' quality of life. More recently Michala's research focus has included proton therapy.

**Dr Karen Sinclair**

School of Creative Industries

Dr Karen Sinclair is an educator and educational researcher focused on Aboriginal education, policy and governance at all levels of education from early childhood to higher education.

**Dr Mustafa Ucgul**

School of Engineering, Agricultural Machinery Research and Design Centre

Dr Mustafa Ucgul is a mechanical engineer that applies powerful discrete element simulations to real world applications in agriculture to improve machinery use and efficiency. Ucgul calibrates computer simulations to replicate a soil medium and then interact particular machinery with this soil medium to understand how the machinery will operate in this environment and look improvements. Mustafa compares his simulations with real field tests that validate and provide confidence that Mustafa's simulations are showing what would happen in reality if all the scenarios were tested that are able to be run in the simulation space. Mustafa's research is industry and end user focused.

**Dr Vamsee Ulaganathan**

Surface Interaction & Soft Matter Group (SISM), Future Industries Institute

Dr Vamsee Ulaganathan's background is in food science and technology and his research focus is primarily on the colloidal systems. Foams and emulsions are colloids, which are a dispersion of bubbles and oil droplets in the aqueous phase. These bubbles and drops are usually of micrometre size and therefore have a huge surface/interfacial area in comparison to their volume. And these interfaces are stabilised by molecules which can adsorb, such as surfactants and proteins. So far Vamsee has studied the adsorption properties of proteins at the liquid interfaces and how they interact and stabilise and thereby provide structure and functionality to colloidal systems.

**Dr Parvathy Venugopal**

Centre for Cancer Biology

Dr Parvathy Venugopal is a post-doctoral researcher with a strong interest in the genetics of haematological disorders, particularly in inherited bone marrow failure disorders and predisposition to haematological malignancies. Parvathy has been working in the field of haematology within the Genetics and Molecular Pathology department at the Centre for Cancer Biology where she commenced her PhD in September 2012.