GLOBAL RESEARCH TRAINING PROGRAMME PARTICIPANTS
2018 - 2019

Deepti Adlakha

Dr Deepti Adlakha is a Lecturer at the School of Natural and Built Environment and an affiliate member at the Centre for Excellence in Public Health-Northern Ireland, Queens University-Belfast. She has a background in architecture and urban design and completed her PhD from the Brown School, Prevention Research Centre, Washington University in St. Louis, United States. Deepti's teaching and research focuses on pathways between urbanization and health and she is passionate about promoting healthy, livable cities. Her research focuses on generating, translating and scaling up evidence for reducing environmental health and social disparities, particularly factors affecting prevention, control and mitigation of chronic and acute non-communicable diseases in populations. Her interests lie in understanding relationships between the built environment and health; documenting and improving geospatial health disparities; and using and improving measures to quantify obesity-related behaviors (physical activity, diet) and relevant exposures (social and built environment) using GIS, accelerometry, GPS, geostatistical approaches, and other new technologies.

Louise Atkinson

Louise is a newly appointed Lecturer of Parasitology in the School of Biological Sciences/Institute of Global Food Security, QUB. She has completed both her undergraduate degree (BSc Biological Sciences) and PhD (Molecular Parasitology) at QUB, and spent her Postdoctoral Research career (2010-18) working on parasitic nematode biology and drug target discovery in the QUB Parasitology Research Group. Her research hinges on the identification, validation, and development of novel approaches for the diagnosis and treatment of parasitic worms (nematodes) which inflict debilitating Neglected Tropical Disease (NTDs) in >1 billion people globally. Nematode-NTDs are the most debilitating, prevalent and disregarded infections of the developing world. They disproportionately affect impoverished communities, most profoundly impacting women and children, and reinforcing the poverty cycle. Louise is particularly interested in Strongyloidiasis, a parasitic nematode disease which is endemic and vastly under-studied in many Official Development Assistance (ODA) countries, including ten member states of the Association of Southeast Asian Nations (ASEAN) where ~100 million people suffer disease. Through the QUB GRTP she hopes to engage with collaborators in key ASEAN countries to examine Strongyloidiasis disease epidemiology and transmission characteristics, and improve current control approaches with novel point-of-care diagnostics and bespoke education programmes. In conjunction, by exploiting advanced genome-editing technologies for drug target discovery at QUB, her research will also address a shortfall in sustainable treatment options for Strongyloidiasis and related nematode diseases. Long term, this work will significantly impact human health and wellbeing, poverty, and inequality through improved disease management in ODA countries.

Áine Aventin

Dr Áine Aventin is Vice-Chancellor's Fellow at the Faculty of Medicine, Health and Life Sciences, Queen's University Belfast (QUB). She is based at the School of Nursing and Midwifery QUB and a member of the QUB Centre for Evidence and Social Innovation (CESI). Áine is a social psychologist and social research methodologist. She specialises in the application of mixed methods research to optimise the development, evaluation and implementation of complex behavioural interventions in health and educational settings. Her research focuses on the use of digital media to improve reproductive, sexual and mental health-related behaviour and she has a special interest in men's sexual and reproductive health and their role in enabling maternal health. Áine is an experienced public health researcher, having worked as principal investigator and co-investigator on a number of multi-disciplinary studies involving several partner institutions. As co-investigator and lead researcher on the JACK Trial, which is funded by the UK National Institute for Health Research (NIHR), Áine co-led the design and development of a film-based sexual health intervention targeting teenage men, *If I Were Jack*, and managed its evaluation in a UK-Wide Randomised Controlled Trial. In 2018, Áine was awarded a prestigious Vice-Chancellor's Fellowship at Queen's University Belfast. She is currently involved in new research examining the international transferability of the *If I Were Jack* intervention to low- and middle-income countries.

Dina Belluigi

Dina Belluigi's research revolves around the complications of authorship within the assessment of students and academics in contemporary higher education. Prior to joining SSESW in April 2017, she was a Senior Lecturer at the Centre for Higher Education Research, Teaching and Learning (CHERTL) at Rhodes University in South Africa. Her background is in fine art, having taught creative arts practice at university level. Her engagement with the figurative has continued in much of her work, from research in creative arts education, collaborations with artists' collectives, to arts-based methods of participatory research. Underpinning these projects is a concern with interpretative frameworks - the ways in which their dynamics of power and authority form, represent, constrain or enable agency, particularly for transformation within contexts with legacies of inequality.

Gillian Carter

Gillian trained in Adult Nursing, and currently has 12 years' experience of healthcare research. She has been at the School of Nursing & Midwifery since 2013 when she commenced her role as a Research Fellow in Palliative Care and became a Lecturer in Chronic Illness in 2016. She contributes to the teaching in undergraduate and post-graduate modules, and also co-ordinates a post-graduate module focusing on Evidence Based Practice.

Gillian's field of work focuses on chronic illness, specifically on communication and decision-making for family carers and patients within palliative care, in particular for individuals living with dementia. She is also interested in enhancing the provision of support for family carers focusing on the availability of peer support facilities. To date her work has focused predominantly within the UK. However, she is a co-investigator in a transnational effectiveness-implementation evaluation study through the Joint Programme for Neurodegenerative Disease, which received a total funding of just under €1.5 million. She would like to be able to extend her research as a PI to foster partnerships with international academic institutions within Low and Middle Income Countries (LMICs) in the field of peer support for dementia carers. She has the opportunity of deepening existing strategic partnerships within Vietnam with the University of Public Health at Hanoi. The research would incorporate a co-design method with carers of individuals living with Dementia in Vietnam

Ahmad Elkhateb

Dr Ahmad Elkhateb is a Lecturer in Power Electronics at Queen's University Belfast (QUB). He leads the power electronics research theme as his expertise lies in the design, control, and implementation of reliable power converters that enable integration of renewable energy resources. Prior to joining QUB in 2017, he was a research fellow at the Higher Institution Centre of Excellence, UMPEDAC, University of Malaya, Malaysia. He was awarded his PhD in Power Electronics in October 2013 and was the recipient of The Malaysian Technical Cooperation scholarship, where he developed a DC/DC converter for photovoltaic systems with minimal ripple current. During his career, he has held several teaching and research positions in Malaysia, Canada, Turkey, and Palestine. He was a visiting scholar at the Electrical and Electronics Engineering Department, Lakehead University, ON, Canada.

Dr Elkhateb has been working in the area of power electronics, renewable energy generation, and grid integration for over eight years and contributed significantly to the industrial and power electronics research community in the form of literature, and prototype research platforms. Dr Elkhateb supervised two PhD and three MSc students. He is a Senior Member IEEE, Associate Editor for IEEE Access journal, has been serving as a technical reviewer for IEEE Transactions on Power Electronics, Industrial Electronics, and Energy Conversion since 2013, and was the local organising Chair for Irish Signals and Systems Conference (ISSC 2018), held in Belfast, UK, in June 2018.

Rachel Killean

Dr Rachel Killean is a lecturer in the School of Law, where she is also Deputy Director of the Human Rights Centre and Co-ordinator of the School's LawPod podcast. Her research focuses on responses to conflict and periods of atrocity, with a particular focus on the experience of Cambodia. Her doctoral research focused on the role of victims in the Extraordinary Chambers in the Courts of Cambodia, leading to her first book: 'Victims, Atrocity and International Criminal Justice: Lessons from Cambodia', published by Routledge in June 2018. She has since been a Co-Investigator on two GCRF pilot projects. The first, led by Prof Robin Hickey in the School of Law, considered how to respond to the conflict-related destruction of cultural property, focusing on the experience of the Cham minority in Cambodia. The second, led by Dr Cheryl Lawther in the School of Law, examined sites of dark tourism in Cambodia, and explored representations of victimhood and victims' ownership and agency in the context of such sites. Her current research interests include firstly, how understandings of conflict-related sexual and gender-based violence travel between international and national contexts, and secondly, how transitional justice can better respond to conflict-related environmental harm. Rachel has published in the *Journal of International Criminal Justice*, the *Leiden Journal of International Law*, the *International Review of Victimology*, the *Irish Yearbook of International* Law and *Contemporary Issues in Law*.

Fiona Lynn

Dr Fiona Lynn is a lecturer in the School of Nursing and Midwifery and a fellow of the Centre for Evidence and Social Innovation. Her research focuses on enhancing maternal and child health and wellbeing, with a particular interest in identifying and evaluating what works for families from the antenatal period through to the early years of childhood. Fiona is a health economist with experience of conducting economic evaluations alongside intervention-based studies (randomised controlled trials, cluster RCTs, pilot trials and feasibility studies). Previous research projects have included investigating preferences for a third routine ultrasound scan in pregnancy, using a discrete choice experiment (PhD research) and a decision analytic model to assess the cost-effectiveness of strategies to detect meningococcal disease in children with a fever without source. Recent research activities include a cost-utility analysis of music therapy in children and adolescents with social, emotional and behavioural difficulties, alongside a randomised controlled trial (RCT); a cost-effectiveness analysis of nurture provision in primary schools, alongside a cluster RCT; and, a cost-effectiveness analysis of the New Baby Programme, alongside a pilot RCT. For the last three years, Fiona has been collaborating with researchers at the Universidade Federal de Santa Catarina in Brazil on issues of public health in maternity care, examining trends in fertility rates and perinatal outcomes of adolescent pregnancies. Future research plans with colleagues in Brazil include an evaluation of the economic impact of maternal mortality and morbidity in Latin America and the Caribbean.

Lucy McCarthy

Lucy has been a lecturer in Queens Management School since September 2015. Her research interests are broadly focused around the equitable development and impacts of international organisational networks. Her PhD undertaken at UCC (2006-2011), allowed her to investigate and assess government interventions in the support and maintenance of marginalised communities, economically and socially. Her current research takes a critical perspective on the effects of businesses in the current environment, through their internationalisation and supply chain networks. Lucy is primarily focusing on the marginalisation of suppliers in food production and consumption networks, working with a post-colonial lens to surface new perspectives. Additionally, she is investigating transparency in supply chains, a project that was the focus of her time in UCD (2012-2015). She is interested in Applied and Action research approaches in these areas as a way to ensure the experiences, interests and concerns of marginalized stakeholders are at the heart of the research process. This project builds on foundational conceptual work around issues of voicelessness, empowerment and instrumental approaches to sustainability, which has recently been published in the journal Organization. This work highlighted an alarming dignity deficit whereby farmers are objectified and removed of agency.

Mandi MacDonald

Dr Mandi MacDonald is a Lecturer in Social Work at the School of Social Sciences, Education and Social Work, and is a Fellow of the Centre for Evidence and Social Innovation. She is a qualified social worker and, prior to joining Queens in 2010, had extensive experience working in statutory child welfare services. Mandi's professional social work practice and academic research have focused on the well-being of children and young people in state care and adopted from care, and on supporting the families of children in need. She has carried out research and published on the experience of family life in permanent placements; post-adoption contact; adoptive parenthood; and kinship care. She has expertise in interpretative qualitative research methods. In 2018 she visited South Africa and Chicago to share international perspectives on these issues, and is collaborating on writing research proposals with colleagues in Sydney, Australia on the shared priority of open adoption. Mandi works alongside practitioners to translate her research into innovative practice solutions, for example through her work on developing the Building Better Futures framework for assessing and enhancing parenting capacity in child protection. Mandi has responsibility at Queens for undergraduate teaching on social work with children and families, and a post-graduate module on enhancing outcomes for children in state care. She contributes to knowledge exchange between research and practice communities as a member of the NI Inter-Agency Child Care and Legal Issues Group, the advisory group of Adoption UK (NI), and the CoramBAAF research group advisory committee.

Charlene McShane

Charlene is a recently appointed Lecturer in Cancer Epidemiology at the Centre for Public Health (CPH). In the final year of her PhD (also at CPH), she obtained a prestigious Cancer Research UK Population Science postdoctoral fellowship to develop a programme of epidemiological research focusing on improving early detection of multiple myeloma, an incurable blood cancer.
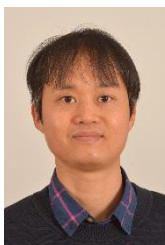
Charlene is now planning on expanding this area of research further by focusing on the early detection of cancer within low and middle income countries (LMICs) where survival from cancer is among the poorest in the world. This long term programme will encompass several research projects focusing on improving knowledge and awareness of cancer, and of cancer screening programmes, and will also explore the potential for digital technologies within these settings. She is also keen to develop workshops for local researchers and healthcare professionals to support cancer registration in order to facilitate a more accurate assessment of cancer burden within these countries. Charlene has previously worked with colleagues in the Angolan Institute of Cancer Control, Universidade 11 de Novembre and QUB to investigate the epidemiological profile of childhood cancers in Angola. She was an invited speaker at a special conference organised by the Universidade 11 de Novembre on childhood cancers and diseases in Angola. She was also involved in organising a community event to promote early detection of childhood cancer within Cabinda, Angola. This event was very successful and attended by approximately 600 local people.

Will Megarry

Will Megarry is a landscape archaeologist and geospatial analyst with a particular interest in prehistoric island societies. He has published widely on the use of geospatial technologies, including geographical information systems and remote sensing technologies, as decision support tools for heritage management and archaeological research. He is also actively involved in the management and protection of World Heritage, and works closely with UNESCO advisory bodies including the International Council on Monuments and Sites (ICOMOS) and the International Scientific Committee on Archaeological Heritage Management (ICAHM). In recent years, he has been exploring the intersection between cultural heritage and climate change and on the bureau of the Working Group updating the 2007 UNESCO policy. He currently has a field project in the Shetland Islands exploring Neolithic stone tool production and has working in projects in India, Peru, USA, Sudan and across Europe and the Mediterranean.

Vien Ngo

Dr Vien Ngo is a Lecturer in the Data Science and Scalable Computing cluster (DSSC/ECIT/EEECS) since September 2017 and is doing research in machine learning and autonomous systems. Dr Ngo's study focuses on looking for the bridge among machine learning techniques with autonomous system learning and AI motion planning. His broad research interest lies in three main topics: i) Intelligent Systems: Reinforcement learning, policy search, deep reinforcement learning, planning under uncertainty (POMDPs), learning from human feedback; ii) Machine Learning: Probabilistic modelling, deep learning, Bayesian inference, active learning; and iii) Robotics: Motor skill learning, movement primitives, manipulation under uncertainty, model learning, motion planning, optimal control, and human-robot interaction.

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Dr. Mel Engman is an applied linguist and Lecturer in the MSc TESOL program. Her research addresses questions pertaining to Indigenous/heritage language education and reclamation, which includes attention to Indigenous pedagogies, materials use, ideology, and identity. She draws on years of experience with Native and settler educators in the Great Lakes region of the United States to examine the intersections of language, sign, and power in a variety of educational settings around the world.

Dr Lisa Graham-Wisener is a Lecturer in the Centre for Improving Health-Related Quality of Life at the School of Psychology. She has a background in health psychology, and completed both her PhD and BSc at QUB. Previous to her appointment as a lecturer at QUB in September 2018, Lisa worked in a clinical setting as the Research Lead at Marie Curie Northern Ireland. At QUB she contributes to teaching on undergraduate modules, undergraduate/ postgraduate research supervision and will be teaching on a new MSc Clinical Health Psychology from September 2020. She is a fellow of the Centre for Evidence and Social Innovation at QUB, a member of the NCRI Living with and Beyond Cancer Group and a committee member of the Palliative Care Research Forum Northern Ireland and Northern Ireland British Psychological Society.

Lisa is primarily interested in the measurement and management of quality of life in chronic physical health conditions. Her work focuses on cancer and palliative care, in addition to spinal deformity. Recent examples of research she has been involved in include work validating distress screening tools (Distress Thermometer) and HRQoL tools in palliative care settings, a feasibility trial of a music therapy intervention in a hospice inpatient unit and a multi-site evaluation of palliative care day services. She is currently PI on a BSRF-funded project to develop a core outcome set for treatment (surgical & conservative) of spinal deformity in adolescents and young adults, and hopes to use the GRTP to develop an international component to this work.

Dr Son Mai is a lecturer in the School of Electronics, Electrical Engineering and Computer Science. He received his PhD from the Ludwig Maximillian University of Munich, German and worked at Helmholts Centre, Technical University of Munich in Germany, Aarhus University in Denmark and University of Grenoble Alpes in France prior to joining QUB. His research focuses on high performance machine learning and data mining techniques for finding meaningful patterns from big complex data with applications in neurosciences, transportation, medicine and healthcare. He has published papers in top-tier conferences and journals in Machine Learning and Data Mining fields such as KDD, ICDM, ICDE, SDM, EDBT, DASFAA, DEXA, TKDE Journal, DAMI Journal, and KAIS Journal.

Dr Loreena Hill joined Queen's University as a post-doctoral fellow in 2017 and was successfully appointed to the School of Nursing and Midwifery as a full-time lecturer in 2018 teaching across year 3 undergraduate modules as well as contributing to a number of postgraduate nursing courses. Her PhD project focused on patients with advanced heart failure, particularly those with an Implantable Cardioverter Defibrillator (ICD) and continues to progress this work, recently securing *collaborative seed funding* to visit and collaborate with Prof Debra Moser, in Kentucky USA. Since 2016 she has been a board member of the Heart Failure Association (HFA) of the European Society of Cardiology (ESC). This prestigious position has enabled networking with heart failure professionals across Europe and work on research projects. Loreena is Principal Investigator on two European projects, *Passion-HF* and a *ESC funded co-design* project. She also supervises a PhD student, the project being to feasibility test a psycho-educational intervention for caregivers of patients with advanced heart failure. Loreena is also part of the research team examining the prevalence of and exploring the experience of patients with cardiac cachexia in Northern Ireland. Both latter projects are supported by Chest Heart and stroke (NI).

After qualifying as a social worker, **Dr Alan Maddock** worked for a number of years in Dublin as mental health social worker with people who are homeless and then later as a youth mental health social worker with large voluntary agency which support the mental health needs of young people. These roles along with a keen interest in research led to him completing his PhD (with the Department of Psychology, Trinity College Dublin) in 2019, where he researched if mindfulness meditation could improve psoriasis, anxiety, depression and psychological wellbeing (it turns out it does). Alan's main research interests are in the area of mental health (young person and adult), and homelessness, both domestically and internationally. He has a particularly keen interest in how mindfulness interventions work in improving mental health and wellbeing in different countries and cultures. He teaches across the Degree in Social Work and is responsible for the Social Work in Context module. This module provides students with a critical overview of a range of social work approaches to working with individuals, groups and communities, with a particular focus on how to understand and then reduce the levels of oppression that these individuals and groups can face.

Dr Ving Fai Chan's research focuses on finding cost-effective approaches to address the burden of blindness and vision impairment in low- and middle-income countries He lived and worked in Africa for 10 years, including 3 years in Eritrea, during which he contributed to the development of the Eritrean National Blindness Prevention Programme. His recent work includes:

a) Caretaker's willingness-to-pay for children's spectacles in Nigeria

b) Healthy Eyes, Happy Child: Improving children's wellbeing with spectacle correction in rural South Africa

c) Impact of myopia correction on high-school attendance among rural Chinese children

d) Impact of near reading glasses on work productivity and workplace retention among garment factory workers in India

Dr Gareth McKay joined the Centre for Public Health as a Lecturer in Bioinformatics in 2010. His research team focuses on the investigation of the molecular pathogenesis of diabetes-associated complications and dementia as well as assessing genomic, physiological and nutritional influences on healthy ageing and disease. He has authored 2 book chapters, and 75 conference proceedings. Gareth has been PI on successful research grant awards from the MRC, NI Health and Social Care and Diabetes UK, with over £3.4M of grant income as co-I from 27 funded awards. He has successfully trained 9 PhD, 4 Masters and 4 undergraduate intercalating medical students. Research interests have focused on biomarker discovery associated with microvascular dysfunction in diabetes and its complications in the kidney, heart and eye. Biomarkers from non-invasive retinal imaging have been evaluated to identify early microvascular decline in 'at risk' individuals. In addition, given the neural retina is an extension of the brain, these biomarkers have also been investigated for associations with cognitive function. Additional interests include identification of (epi)genetic risk factors associated with diabetes and its complications, dementia and other chronic diseases, including nutrigenomic associated disease risk, socioeconomic factors and serum carotenoid and antioxidant levels, particularly vitamin E. In February 2020, Gareth will travel to Monash University Malaysia to help expand his global health network in low and middle income countries including academic, government and patient groups to advance collaborative grant applications for international funding to investigate the effects of diabetes and its complications (e.g. MRC UK-Malaysian Partnership; Malaysia-Newton Fund).

Dr Lorna Montgomery worked as a social work practitioner and manager in the Health and Social Care sector before moving to Queens in 2013. She has also worked for five years in an international NGO in Uganda, a key aspect of which involved offering therapeutic interventions and mental health support. Lorna currently works a lecturer in social work, teaching on both undergraduate and postgraduate courses. She also holds the position of Director of Practice Learning in which she oversees the Bachelor of Social Work students' professional training.

Lorna's research interests include a focus on the protection of adults from abuse, mental health, bereavement, and the development of culturally sensitive practices. She has acted as Co-investigator on four Global Challenges Research Fund (GCRF) grants, and has established positive international networks in Uganda, South Africa and Cambodia.

Dr Youcheng Sun is a Lecturer from the School of Electronics, Electrical Engineering and Computer Science (EEECS). Before joining the Queen's University of Belfast, he was a Researcher at the University of Oxford.

Youcheng's research interest is about building trustworthy intelligent software systems. He is among the first to study the testing of deep neural networks (DNNs). He proposed MC/DC-style test criteria for testing DNNs, and developed the concolic testing approach for test case generation of neural networks. Youcheng received two Dstl grants for "Test Coverage Metrics for Artificial Intelligence" and one NCSC grant for security in deep learning. He led on the source code testing and verification work for two UK domestic airborne software projects, SECT-AIR and AUTOSAC. He was a member of the EU H2020 project SAFURE investigating safety and security assurance in the design of mixed-critical cyber-physical systems.

Dr Yingfen Hsia is a pharmacist and pharmaco-epidemiologist. Her research mainly focuses on medication use in children and adolescents. She has been integrating global health into my pharmacy practice research over the course of her career to date. Yingfen uses a range of methods including analyses of large electronic medical databases (UK Clinical Practice Research Datalink and THIN), global pharmaceutical database (IQVIA-MIDAS), prospective clinical studies, and systematic reviews in her research works. Currently, her research focus is to develop methodology to assess global antimicrobial resistance and antibiotic consumption in neonates and children. In 2015, she established and led the first global paediatric surveillance program (Global Antimicrobial Resistance, Prescribing, and Efficacy Among Neonates and Children; GARPEC); over 100 hospitals from 26 countries participated in this project. Yingfen has several papers published in peer-review journals (Lancet Global Health, Lancet Infectious Disease, and BMJ Global Health) from her research works.

Dr Alison MacKenzie's academic background is in Philosophy of Education. She is interested in how injustice and inequality are reproduced and sustained by forms of ignorance, testimonial and hermeneutical injustices, lack of access to important capitals such as linguistic capital, and by the ways in which ordinary vices are often overlooked as important sources of injustice: cruelty, misogyny, hypocrisy, and so on. Her key areas of interest include: SEN/Inclusion, The Capability Approach (Nussbaum), Education Policy, Philosophy of Emotions, Feminism and Gender (philosophical liberalism), and Literacy/Linguistic Capital.