

# FUTURE FORWARD

DMRF supports progressive health research. We are forward thinking. We understand the health outcomes of tomorrow depend on the research excellence of today. Your donations to DMRF influence the diagnosis, treatments, and cures of the future. Prevention, healthy living, and addressing the specific needs of vulnerable populations are crucial aspects of the research initiatives that are influencing societal change. Through your giving, DMRF is responding to the shifting paradigm of health issues in our region and beyond.

Here we feature a snapshot of just a few health researchers whose innovative work has entrepreneurial underpinnings and a view to changing the future of health as we know it.





## DR. CHRISTINE CHAMBERS

Canada Research Chair (Tier 1)  
in Children's Pain, Killam Professor  
in the Departments of Pediatrics  
and Psychology & Neuroscience  
Dalhousie University

All children experience pain, but they shouldn't have to suffer. Canada is a world leader in children's pain research, but many children still do not receive the pain care they deserve. Poorly managed pain is linked to many negative short-and long-term consequences. Dr. Christine Chambers is a dynamic clinical psychologist who has skillfully harnessed the power of social media and key influencer relationships to bolster her leading-edge research aimed at improving the assessment and management of children's pain. Her Canadian Institutes of Health Research (CIHR) funded "It Doesn't Have to Hurt" initiative for parents generated 150 million content views

worldwide, trended nationally on social media several times, won multiple national and international awards, and was featured in The New York Times, The Globe & Mail, and on CBC's The National. Dr. Chambers is the Scientific Director of a recently established \$7.3 million national Networks of Centres of Excellence Canada knowledge mobilization initiative with over 100 partners, Solutions for Kids in Pain (SKIP). Headquartered at Dalhousie, SKIP's mission is to improve children's pain management by mobilizing evidence-based solutions through coordination and collaboration. DMRF donors have contributed \$160,000 to this important and life-changing project.



## DR. DANIEL BOYD

Associate Professor, Department of Applied Oral Sciences, School of Biomedical Engineering  
Dalhousie University, Co-founder, ABK Biomedical

Globally recognized inventor of several inorganic polymer technologies in various life science sectors including orthopaedics, dentistry, and oncology, Dr. Boyd has gained global intellectual property protection for a wide range of inorganic polymers. Daniel has extensive experience in medical devices and biomaterials; centred on bone regeneration and growth, oncology, pharmaceutical delivery and oral health. He is a co-founder of a number of companies including ABK Biomedical and IR Scientific and has governance experience in both public and private sectors.

Dr. Boyd is passionate about glass and the revolutionary benefits it can bring to health care. An exceptionally versatile material,

it can be turned into a microsphere that can be used to block the blood supply to tumours of the liver or uterine fibroids, causing them to shrink and disappear without surgery. He's also using glass to transform dental material into a bone cement that can be injected into the spine, bond with the bone and repair fractures. Glass can be used as a desensitizing agent for toothpaste, blocking the tubules that lead to the nerve and preventing the pain that cold and hot drink can often trigger. It can also be used to treat osteoarthritis, one of the most pressing medical issues around the world, with synthetic bone grafts. Dr. Boyd currently serves as an Associate Professor, Department of Applied Oral Sciences, School of Biomedical Engineering, at Dalhousie University.



## DR. DEBBIE MARTIN

Tier II Canada Research  
Chair Indigenous Peoples  
Health and Well-Being Associate  
Professor, Health Promotion,  
Dalhousie University

The devastating impacts of colonization in Canada remain to this day, with many Indigenous communities living in a perpetual state of crisis characterized by ill health and well-being. The Wabanaki Network, led by Dalhousie University, in partnership with national Indigenous leadership, employs integrative science models to draw on the strengths of both Indigenous and western perspectives. Researcher and Professor Dr. Debbie Martin's evidence-based work is aimed at preventing chronic diseases, which she has found to be disproportionately higher among Aboriginal peoples relative to their non-Aboriginal counterparts within Canada.

Working directly with communities, she endeavours to identify and address key community and societal level determinants that are often linked to lifestyle factors that ultimately cause chronic diseases. For instance, cost and availability of nutritious and culturally appropriate foods, which limits food choices, puts people at risk for debilitating, costly, and preventable chronic diseases such as obesity, diabetes, and certain cancers. A key feature of her research focuses on the importance of community engagement and using Indigenous 'ways of knowing' (methodologies) to inform the research process – from design to dissemination.