CSI 2025 Investigator Award
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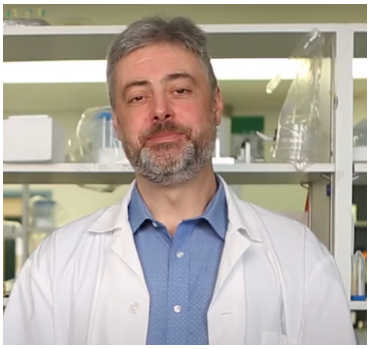

Dr. Andrew Makrigiannis, *Professor, Department of Microbiology and Immunology, Dalhousie University; Senior Scientist, Beatrice Hunter Cancer Research Institute, Halifax, Nova Scotia*

Andrew Peter Makrigiannis is a Professor at the Department of Microbiology and Immunology, Dalhousie University and Senior Scientist of the Beatrice Hunter Cancer Research Institute in Halifax, Nova Scotia. He received a Ph.D. from Dalhousie University studying CD8 T cell activation under the supervision of Dr. David Hoskin, in the same department that he eventually returned to serve as department head. He was a postdoctoral fellow at the National Institutes of Health, USA in the laboratory of Dr. Stephen Anderson. Early honours include a CIHR New Investigator Award, Canada Research Chair and the inaugural CSI New Investigator Award. His research centers on the role and contribution of two related families of lectin-like cell surface receptors, Ly49 and Nkrp1/Clr, to immune cell function with a focus on Natural Killer (NK) cells. His early studies into the genetics and diversity of mouse Ly49 revealed convergent evolutionary parallels to their human KIR counterparts. As well, these studies resulted in the creation of the first Ly49/Nkrp1 gene-modified mice allowing their direct contribution to NK cell 'missing-self' immunosurveillance to be revealed, with the surprise that Nkrp1/Clr mediate tissue/organ-specific immunity in contrast to Ly49/MHC. These various Ly49/Nkrp1/Clr knockout strains have been instrumental in testing the contribution of these receptors to resistance to cancer and infection mediated by NK cells. Furthermore, they resulted in fortunate discoveries into other unforeseen areas including control of plasmacytoid dendritic cell type I IFN production (Ly49Q), alveolar macrophage lipid uptake and metabolic control (NKR-P1B), kidney epithelial cell immunosurveillance (Clr-f), and mediation of peptide recognition by memory NK cells (Ly49C/I). His proudest achievements are his trainees, who have gone on to work in academia, industry and medicine.