Multidisciplinary Observatory for Arctic Climate Change and Extreme Events Monitoring (MOACC)

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ABSTRACT

The Multidisciplinary Observatory for Arctic Climate Change and Extreme Events Monitoring (MOACC) proposal is submitted by the Université de Sherbrooke (lead institution-UdeS), University of Toronto (UofT), Western University (WU) and Université de Montréal (UM). The main objective of our project is to develop a permanent multidisciplinary scientific infrastructure that enables long-term observations of Arctic climate change, bringing together experts from a wide range of expertise and institutions. The project is led by Prof. Alexandre Langlois (UdeS) and Prof. Kimberley Strong (UofT) and responds to a consensus on the lack of temporal observations that are crucial to understand feedback processes and to promote model development in the Arctic. The innovative aspect of this proposal resides in its multidisciplinary approach while enabling long-term Arctic measurements spanning several disciplines. The proposed observatory will be located at the Canadian High Arctic Research Station (CHARS) in Cambridge Bay, Nunavut, while enhancing the reach of CHARS with linkages to the Environment and Climate Change Canada supersite in Iqaluit. Our ambition is to establish the site as one of the largest instrumented high Arctic observatories dedicated to the monitoring of key indicators that drive climate change. The site will generate and enhance partnerships, not only with Canadian research centers and organizations, but also with international research partners and networks.

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