# DALHOUSIE MEDIA RELEASE

## Dalhousie receives historic $154-million investment to study the ocean's pivotal role in climate change

**Government of Canada funding will contribute to a $400-million research program with partners Université du Québec à Rimouski, Université Laval, and Memorial University**

**April 28, 2023** – HALIFAX, NS – Dalhousie University will receive $154 million from the Canada First Research Excellence Fund (CFREF) grant program announced today by the Hon. François-Philippe Champagne, Canada's Minister of Innovation, Science, and Industry, at Concordia University in Montreal.

The program, *Transforming Climate Action: Addressing the Missing Ocean*, will bring together researchers at Dalhousie and its academic partners — Université du Québec à Rimouski, Université Laval, and Memorial University— to embark on the most intensive investigation ever into the ocean's role in climate change to ultimately deliver benefits to Canadians, our communities and the economy.

"I want to thank the federal government for this significant investment, the largest ever made in research at Dalhousie," says Dr. Frank Harvey, president and vice-chancellor (acting). "As Canada's leading ocean research university, with a team of more than 100 ocean-focused researchers and world-leading ocean research centres, we're thrilled to partner with Laval, UQAR and Memorial to address the challenge of *Transforming Climate Action* and to undertake this critically important research."

The global ocean holds 90 per cent of the Earth's carbon and has absorbed 40 per cent of fossil fuel emissions to date. It removes more $CO_2$ from the atmosphere than all the rain forests combined. Emerging science shows the ocean's ability to absorb and hold carbon is changing in ways we don't understand.

"The ocean is protecting us against the worst impacts of a warming planet. But exactly how, and for how long it can do so, are critical scientific questions that need answers urgently," says Dr. Anya Waite, Dalhousie's associate vice-president (ocean) and scientific director and CEO of Dalhousie's Ocean Frontier Institute. "Without a better understanding of the ocean's role in mitigating global warming, our efforts to meet global climate targets and avert the worst impacts of climate change are at serious risk."

*Transforming Climate Action* brings together more than 170 researchers at the four partner universities, spanning diverse disciplines such as oceanography, atmospheric science, Indigenous scholarship and knowledge, engineering, data science, maritime law, immigration policy, and social justice.

The scientific strategy for *Transforming Climate Action* has three key objectives:

- **Reducing uncertainty**
  Through unprecedented data collection and analysis of the North Atlantic carbon sink — a critical ocean system that absorbs 30 per cent of carbon taken in by the global ocean annually — *Transforming Climate Action* will reduce uncertainty about the ocean's role in climate change to improve climate change forecasting, climate and regional adaptation strategies, and technologies to conduct ocean research.

**COMMUNICATIONS, MARKETING AND CREATIVE SERVICES**
Henry Hicks Building, Room 218 | 6299 South St. | Halifax NS
Phone: 902-494-2517 | mediarelations@dal.ca
**DAL.CA**

- **Mitigating climate change**
  In addition to developing approaches to reduce ocean sector emissions, the partner universities will collaborate with Indigenous, industry, and community organizations to safely and responsibly advance the science, technology, and enterprises to position Canada as the global leader in ocean-based carbon dioxide removal.

- **Adapting equitably**
  *Transforming Climate Action* researchers will advance people-centric adaptation to ocean and climate change based on science, co-designed with communities, and informed by Indigenous ways of knowing. The research team will lead change through social impact assessment, advances in education and information sharing, influencing change to legal and regulatory frameworks, and drawing on the deep connections coastal communities have with the ocean.

"*Transforming Climate Action* will focus the world's attention and energies on the primary importance of the ocean in determining climate policy, shifting the global discourse and positioning the partner institutions as leaders in evaluating and mitigating the impacts of climate change," says Dr. Alice Aiken, Dalhousie's vice-president of research and innovation.

Dalhousie's Ocean Frontier Institute will play an integral role in the leadership and management of *Transforming Climate Action*, connecting researchers to a global community focused on climate-ocean science, policy, and advocacy. With the support of 40 national and international partners, including industry, research, government, and NGO partners, and deep institutional connections with Indigenous peoples and communities in Atlantic Canada and Quebec, the partner institutions are uniquely prepared to bring a collective approach to climate action.

The research program allocates significant funding for Indigenous-led research and will build on deep existing knowledge and research by Indigenous researchers, communities, and organizations in the areas of climate change and mitigation. Indigenous-led research partnerships will ensure that science and policy recommendations are guided by Indigenous values and traditional knowledges.

"Our relationship with the ocean is an ancient one, built on balance, respect and knowledge passed down from generation to generation," says Angeline Gillis, Executive Director of the Confederacy of Mainland Mi'kmaq, an official partner of *Transforming Climate Action*. "The resources provided by *Transforming Climate Action* will provide a unique opportunity to bring together our common experiences and understandings of the Ocean, in a partnership that will ensure we move towards a sustainable future for our children."

Through powerful global partnerships, *Transforming Climate Action* will identify and bring together the ocean and climate data required to advance novel ocean-climate research and outcomes.
"The ambition is not just to enable strong research, but to mobilize data to create a better-informed country, better-informed policies and a transformative effect on how we respond and manage the ocean-climate nexus,"

says Dr. Mike Smit, acting dean of the Faculty of Management and an information scientist who will lead the data management project that is central to the *Transforming Climate Action* research program.

“The partnerships we have established between our researchers and national and international industry partners will mobilize knowledge from benchtop to industry to create economic impact for Canada and demonstrate Canada’s global leadership in developing and scaling ocean-climate science and innovation from minds to markets,” says Eric Siegel, chief innovation officer at Dalhousie’s Ocean Frontier Institute.

Also included in today’s CFREF funding announcement is Dalhousie’s role as a partner institution with Concordia University on its CFREF research program, *Electrifying Society: Towards Decarbonized Resilient Communities*. The project aims to develop novel solutions and innovative technologies to tackle climate change and drive sustainability research. A group of Dalhousie battery researchers, including Dr. Jeff Dahn NSERC/Tesla Canada Inc. Industrial Research Chair and Canada Research Chair (CRC) in Materials for Advanced Batteries, will partner with the Concordia team in the development of advanced, low-cost, environmentally friendly batteries for buildings and mobile applications such as electric vehicles.

-30-

The Transforming Climate Action research program relies on the unique strengths and partnership of Dalhousie University, Université du Québec à Rimouski, Université Laval, and Memorial University:

"Pooling our expertise has allowed the partner universities to develop an innovative, solution-oriented research program to address social and environmental challenges affecting the oceans and climate. Thanks to the support of the federal government, we will take giant steps forward together with the CFREF program. New knowledge will emerge from this ambitious program, which will contribute to Canada's leadership in the fight against climate change.” *François Deschênes, Rector, Université du Québec à Rimouski*

“Even though the crucial role of oceans in regulating global temperature is no longer in question, it remains urgent to better understand the complex mechanisms behind this process in order to alleviate the consequences of a rapidly changing climate. The world-class ocean research expertise and infrastructure of Université Laval, combined with those of the other major partners in this large-scale project, will help improve climate change forecasting and develop adaptation strategies tailored to the needs of impacted communities.” *Sophie D’Amours, Rector, Université Laval*

“Scientific collaboration is the key to finding real solutions to urgent issues facing our planet. Recognized as an international leader in ocean innovation, Memorial brings unparalleled research strengths to this ambitious project. Our scientists and scholars are delighted to continue working with Dalhousie University and our partners to lead scientific breakthroughs and provide key insights into the ocean’s role in climate change.” *Dr. Tana Allen, vice-president (research), Memorial University.*

**COMMUNICATIONS, MARKETING AND CREATIVE SERVICES**
Henry Hicks Building, Room 218 | 6299 South St. | Halifax NS
Phone: 902-494-2517 | mediarelations@dal.ca

**DAL.CA**

"Coastal communities from Newfoundland and Labrador to Nova Scotia to Northern Quebec that depend so heavily on the Northwest Atlantic for livelihoods and resources face major changes linked to climate change. The *Transforming Climate Action* umbrella offers a pathway to address this single greatest challenge of our time by bringing together global leaders in ocean research to understand, predict, and mitigate climate change impacts that threaten our way of life and the future of our world." *Dr. Paul Snelgrove, Memorial University's associate scientific director, Ocean Frontier Institute and university research professor, departments of Ocean Sciences and Biology, Faculty of Science*

Learn more about *Transforming Climate Action* www.transformclimateaction.ca.

Learn more about the Canada First Research Excellence Fund.

**Media Contact:**
Janet Bryson
Associate Director, Media Relations and Issues Management
Dalhousie University
Communications, Marketing & Creative Services
Mobile: 902.222.9379
Janet.bryson@dal.da