



Six countries team up to conduct research in Northwest Atlantic Working together to understand the impact of climate change

St. John's, NL (April 25, 2017) – A team of scientists from six countries — with a unique Memorial University connection — will depart from St. John's, N.L. on April 27 on a trans-Atlantic voyage that's studying the impact of climate change on the ocean.

The research being conducted onboard the *Celtic Explorer* is a Global Ocean Ship-based Hydrographic Investigations Program (GO-SHIP) survey, being led by the Marine Institute of Galway, Ireland. Marine Institute of Galway is a partner in the newly-formed [Ocean Frontier Institute \(OFI\)](#), co-founded by Memorial University of Newfoundland, University of Prince Edward Island and Dalhousie University. Established in the fall of 2016 through \$220 million in funding from the Government of Canada and various private and public sector organizations, OFI supports multi-year research projects at the universities. The research voyage represents the first step in the OFI partnership to explore sustainable ecosystems in the Northwest Atlantic and builds on a long-term relationship between Memorial University's Marine Institute and the Marine Institute of Galway.

"The Northwest Atlantic is one of the world's largest sinks of carbon dioxide and, despite progress in our understanding, there's still a huge lack of data as it relates to climate change's impact on the ocean and what that means for the economy and society," said Brad de Young, professor of physics and physical oceanography, Memorial University, and researcher, OFI.

In addition to sequestering massive amounts of carbon dioxide, the Northwest Atlantic Ocean between Newfoundland and Labrador and Ireland plays a key role in controlling temperature in Europe and Eastern Canada and delivers life-supporting oxygen to the ocean interior.

The GO-SHIP voyage is a collaborative effort with representatives from Ireland, the U.K., Germany, Denmark, the U.S. and Canada sharing technology, expertise and the results from the onboard measurements. In addition to studying climate change impacts, the scientists will examine the movement of nutrients and oxygen by ocean currents and collect data to assess acidification rates on the ocean's ecosystem.

"Those supporting the voyage on board and on shore are global experts, working to identify how climate change is impacting our oceans, which is a global issue," said Doug Wallace, Canada Excellence Research Chair in Ocean Science and Technology, Dalhousie University and researcher, OFI. "The challenges associated with changing climate are too large-scale and complex for one institution, one research sector or even one country to tackle alone.

"Improving our scientific understanding and developing strategic and effective solutions for safe and sustainable ocean development requires sharing of expertise, international co-operation and exchange of data and best practices. And that's what this voyage is all about."

The research vessel will depart St. John's on April 27, returning to Galway on May 23.

About OFI

The Ocean Frontier Institute (OFI) is a collaborative research initiative to harness the vast potential of the world's ocean. An international hub for ocean science, OFI brings together researchers and institutes from across the globe to understand our changing ocean and create safe, sustainable solutions for development.

OFI is a partnership between Dalhousie University, Memorial University of Newfoundland and the University of Prince Edward Island. Other partners include scientists from three of the Government of Canada's federal laboratories, Royal Canadian Navy, National Film Board of Canada, Nova Scotia Community College, provincial governments of Nova Scotia and Newfoundland and Labrador and various private sector businesses and industry. International research institutes involved in OFI are Alfred Wegener Institute (Germany), Christian-Albrechts-Universität zu Kiel (Germany), GEOMAR Helmholtz Centre for Ocean Research (Germany), Institute of Marine Research (Norway), LabexMER (France), Lamont-Doherty Earth Observatory of Columbia University (New York), Marine Institute, Galway (Ireland) and the Woods Hole Oceanographic Institution (Massachusetts).

About GO-SHIP

GO-SHIP provides international co-ordination aiming at sustained decadal reference hydrographic section repeats (39 worldwide), collecting data related to physical oceanography, the carbon cycle, marine biogeochemistry and ecosystems. GO-SHIP feeds into the Ocean Observations Panel for Climate and the International Ocean Carbon Coordination Project as part of the Global Ocean Observing System, Global Climate Observing System, and the World Climate Research Program. By co-ordinating approximately decadal observations for the inventories of heat, freshwater, carbon, oxygen, nutrient and transient tracers, covering the ocean basins from coast-to-coast and full depth (top to bottom), with water column and surface water measurements of the highest accuracy, Go-SHIP is contributing greatly to detection of physical and biogeochemical changes in our oceans.

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Editors please note:

Photos and interviews can be arranged through Kelly Foss:

- **Equipment being loaded onboard at 9 a.m.**
- **Ship is scheduled to depart at 4 p.m.**
- **Entrance to Port Authority requires photo I.D.**

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