

ASIAN ARCTIC EXPEDITION ON ARAON

CALL FOR APPLICATIONS

Korea Polar Research Institute (KOPRI) is a government-sponsored polar research institute of the Republic of Korea. While serving as the operator of national polar programs, KOPRI also advocates international cooperation in polar science and research.

To commemorate the 10th anniversary of IBRV Araon, KOPRI invites colleagues of the Asian Arctic research community to participate in its 2020 Arctic expedition. For students and researchers, it is a chance to observe scientific fieldwork conducted in the Arctic Ocean. For operators of Arctic infrastructure, it is an opportunity to gain firsthand experiences of the operation of an icebreaker.

■ Expedition Dates and Routes of the Arctic Cruise

Participants should state in their application which leg of the cruise they wish to participate in. However, please be advised that the following cruise schedule, including the port of embarkation and disembarkment, may be subject to change due to COVID-19 outbreak, weather and other unforeseen circumstances.

- 1st Leg: Departure from Incheon Harbor, Korea (July 13) – Bering Sea Expedition – Arrival at Dutch Harbor, Alaska, U.S. (July 22)
- 2nd Leg: Departure from Dutch Harbor, Alaska, U.S. (July 25) – Bering, Chukchi, East Siberian Sea Expedition – Arrival at Barrow, Alaska, U.S (August 23)
- 3rd Leg: Departure from Barrow, Alaska, U.S (August 25) – Beaufort Sea Expedition– Arrival at Nome, Alaska, U.S. (September 20)
- 4th Leg: Departure from Nome, Alaska, U.S. (September 21) – Arrival at Gwangyang Harbor (October 4)

■ Details of IBRV Araon and its Research Activities

[Information on IBRV Araon and the research equipment on the vessel](#) can be found on our webpage. Research topics of each leg of the expedition is as follows:

- 1st Leg: The “Investigation and Prediction System Development of Marine Heatwave around the Korean Peninsula originated from the Subarctic and Western Pacific” project aims to establish a marine heatwave prediction system around the Korean Peninsula, based on our enhanced understanding of the mechanism of the North Pacific blocking high affecting the Korean marine heatwave. This expedition will conduct shipborne measurements with CTD temperature-salinity profilers, ADCP current meters, underway CTDs, radiosonde, and on-board weather station to acquire a series of atmospheric and oceanic data, and operate time-series observation system of a moored pressure-recording

inverted echo sounders in the Bering Sea, to discover observational evidence of the North Pacific blocking high-related ocean-atmosphere interaction processes.

Contact: Dr. Sang-Yoon Jun (syjun@kopri.re.kr)

- 2nd Leg: The objective of the “Korea-Arctic Ocean Observing System (K-AOOS)” project is to detect the changes of the structure and processes in the water column, subsurface, sediment and sea-ice in the Pacific Arctic Ocean. The aim of the cruise is to identify the key environmental parameters in rapid transition due to the sea-ice decrease in the Pacific Arctic Ocean, and predict patterns of environmental changes. This expedition focuses on observing the physical, chemical and biological processes in the Bering Sea, Chukchi Sea and East Siberian Seas. During the expedition, we will operate CTD, ADCP, Niskin, phyto-and zooplankton net, box core, deck incubation, acoustics (Ek60), and ocean mooring system.

Contact: Dr. Eun Jin Yang (ejyang@kopri.re.kr)

- 3rd Leg: The “Arctic Marine Geoscience Expedition (AMAGE)” is a highly multidisciplinary undertaking in the Arctic Ocean. The project has been conducted since 2016, as an international collaboration between Canada, USA, Germany, Japan and Russia. During the expedition, multidisciplinary research activities will be conducted to investigate geological structures, seismic stratigraphy, sedimentology, submarine landforms, gas hydrate distributions, and methane release. The expedition also aims to characterize the geochemistry and geothermal settings of the near-seafloor and undertakes a variety of oceanographic, biological and atmospheric investigations. These activities address issues related to active geologic processes and fluid and gas flux, offshore geohazards, ocean variability and the broad consequences of global climate change.

Contact: Dr. Young Keun Jin (ykjin@kopri.re.kr)

- 4th Leg: No research activities will be performed on the return journey.

You can read more about KOPRI and the Korean Polar Program in [our Annual Report](#) and [KOPRI Abstracts](#).

■ Eligibility

Two categories of applicants can submit their application for the expedition. The first category is for researchers who are currently enrolled in a postgraduate program or have completed a PhD program, focusing on research topics related to the Arctic. The second category is for applicants who are working in the field related to icebreaker operation. Applicants for both categories must be affiliated with an academic institute in the Asian region other than Korea. Priority will be given to early career scientists and students.

■ Financing and Support

Once selected, KOPRI will waive all fees related to boarding the ship, including accommodation and meals onboard IBRV Araon. All participants are responsible for their own visa, and for transportation to and from their port of embarkment and disembarkment. All participants must complete a relevant maritime training course (STCW A-VI/1) and medical check-up, and submit the results to KOPRI prior to boarding the vessel.

■ How to Apply

In order for your application to be considered, the application package must include the following:

1. Application form
2. Curriculum Vitae
3. Home institute agreement
4. If your home institute is located in one of the Asian Forum for Polar Sciences (AFoPS) member countries*, a recommendation letter from your AFoPS representative is required. Please refer to the [AFoPS webpage](#) for contact details.

* AFoPS member country other than Korea are: China, India, Japan, Malaysia, and Thailand

When filling out your application, please elaborate your background in polar research or infrastructure operation, and describe in detail what you wish to accomplish during your participation in the expedition on IBRV Araon.

Once your application form, CV, home institute agreement and AFoPS representative letter are complete, you may submit your application to the following email address: fellowship@kopri.re.kr

Should you have further questions, please contact the Department of International Cooperation at the Korea Polar Research Institute:

- E-mail: fellowship@kopri.re.kr
- Phone: +82-32-770-8436

■ Deadline for Application Submission: **April 20, 2020, 17:00 (KST)**