



U.S. GO-SHIP

September 17, 2021

Greetings,

We are looking for scientists with experience in physical and/or biogeochemical hydrography and in oceanographic expedition organization who would be interested in participating as **Chief Scientist** on **one of the two legs** of the GO-SHIP (<https://usgoship.ucsd.edu> and <http://www.go-ship.org>) decadal re-occupation of the hydrographic section **P02 along 30°N in the Pacific**<sup>1</sup>, tentatively scheduled from **April 2022 through July 2022**. Preferred candidates will have extensive previous experience with organizing and executing oceanographic field studies, and/or will have been a Chief or Co-Chief Scientist or a Principal Investigator on a previous U.S. GO-SHIP cruise.

**Deadline for applications: Oct 22, 2021** (see ‘How to apply’ below for details)

**PARTICULARS:** (all dates are tentative)

- We will be sailing on the **R/V *Revelle***
- Leg 1 (P02W) 49-51 days
  - Loading in and Departing from Guam mid April 2022
  - Sailing to Honolulu, Hawaii, arriving in early June
- 3-day port stop in early June
- Leg 2 (P02E) 33 days
  - Departing from Honolulu, Hawaii
  - Sailing to San Diego, California, arriving in early July

**DUTIES:**

All U.S. GO-SHIP chief scientists are experienced with sea-going fieldwork.

**Pre-cruise:** The Chief Scientist will take over cruise planning and paperwork, including that for sampling in non-U.S. EEZs, from Lynne Talley and Alison Macdonald (U.S. GO-SHIP Executive Council) at a mutually-agreed upon time before the cruise, will lead selection of student CTD watchstander positions and be involved in the selection of the Co-Chief Scientist, both of which will be advertised by the U.S. GO-SHIP Executive Council. Note that the Chief Scientist is ultimately responsible for official pre-cruise activities, including organization of the sampling groups, lab spaces, berths, and documents. The Chief Scientist will also attend and contribute to a pre-cruise meeting either in person or remotely. (The U.S. GO-SHIP NSF grant will support Chief Scientist travel to the pre-cruise meeting, if teleconference is not used.)

**At sea:** In addition to all duties and decision-making responsibilities that normally fall upon a Chief Scientist, the Chief Scientist will be the scientist-in-charge of one 12-hour watch. At sea duties include mentoring students assigned to that watch, as well as mentoring and assisting the Co-Chief Scientist on the opposite watch. Together with the Co-Chief, and other sampling teams, the Chief Scientist will prepare, maintain, distribute, and execute a running station and sampling plan that meets cruise and

program objectives and efficiently utilizes time and seawater resources; define the sampling plan and sampling levels for each parameter in accordance with GO-SHIP guidelines and the requests of the individual measuring teams; communicate regularly and as needed with the Captain, officers, crew, and shipboard technicians; see that assistance with water sampling (i.e., “sample cop” and/or drawing samples) is provided on every cast; ensure that the CTD watch safely runs the CTD console on station according to the guideline provided by the program and completes the routine forms required for each station; assist with at-sea data review and documentation; and work with all on-board teams to prepare the draft cruise report before end of cruise; and throughout the cruise act as supportive resource for all members of the science party.

**Post-cruise:** The Chief Scientist will review and edit the GO-SHIP cruise report drafted at sea, and respond as needed to continued inquiries regarding data, quality codes, and documentation. Post-cruise documentation may be required by UNOLS and by the State Department if sampling occurred in non-U.S. EEZs. U.S. GO-SHIP will assist with this documentation as needed. Please note that grant support for post-cruise data analyses is not supported by the NSF grant to SIO unless a specific exception has been made with the program directors; publication costs are available if requested.

**Mentoring/training:** The Chief Scientist will include the Co-Chief Scientist in the planning, cruise and post-cruise periods, and will provide mentorship particularly when a Co-Chief is an early career or inexperienced at-sea scientist.

**SUPPORT:** Salary support for U.S. GO-SHIP academic Chief Scientists will be negotiated, and is typically supplied via subawards from UCSD/SIO to the participant’s institution (see<sup>2</sup> below). It typically covers time at-sea, in port, on travel, several weeks of preparation, and several weeks of post-cruise reporting. Travel will be paid by UCSD/SIO.

**WHO CAN APPLY:** Although preference may be given to those with ongoing research in the Pacific Ocean, all are welcome to apply. If there are multiple qualified applicants for the positions (Leg 1 and/or Leg 2), final selection will be made by the U.S. GO-SHIP Executive Council in consultation with the Principal Investigators Committee.

**HOW TO APPLY:** Email letters of application to Alison Macdonald ([amacdonald@whoi.edu](mailto:amacdonald@whoi.edu)).

**Please provide** your CV, a brief summary of your research interests and experience and include the name and email address of a reference. **DEADLINE: October 22, 2021**

The cruise legs are long and will likely pass through challenging weather with rough sea conditions at some point. We therefore recommend that those who apply be reasonably confident that they can handle such conditions. Candidates should think carefully before applying if they are prone to motion sickness.

<sup>1</sup> **Further Details on cruise activities:** (The Data and Cruise Report from the previous P02 occupation in 2013 can be found at <https://cchdo.ucsd.edu/cruise/318M20130321>. At-sea weekly reports as well as blog posts from the most recent U.S. GO-SHIP cruise A20/A22 can be found on at <https://usgoship-a20-a22-2021.blogspot.com/> and <https://usgoship.ucsd.edu/news/>, respectively). Station stops are planned every ~55 kilometers (closer over steep topography and near coasts) where the CTD/rosette is lowered to measure the temperature, salinity, oxygen, currents, optical properties, and other dynamics from just below the sea surface to approximately 10 meters above the ocean bottom. During each of these stations up to 36 water samples are collected for measurement of various water properties, including a number of oceanic carbon-related parameters (dissolved organic and inorganic carbon, alkalinity, pH,  $p\text{CO}_2$ ), along with dissolved chlorofluorocarbons and sulfur hexafluoride ( $\text{SF}_6$ ), dissolved oxygen, salinity, and nutrients. While the ship is both underway and on station it continuously pumps surface seawater through sensors for temperature, salinity, and partial pressure of  $\text{CO}_2$ ; operates standard meteorological sensors; operates a shipboard Acoustic Doppler Current Profiler; and collects along-track bathymetric data. Additional ancillary programs (“Level 2 and 3”) are hosted aboard at a lower priority than the core (“Level 1”) measurements. We also deploy floats and drifters along the track as requested.

<sup>2</sup> **Financial support** for the Chief Scientist is provided through an NSF grant to UCSD/SIO, coordinated by Lynne Talley ([ltalley@ucsd.edu](mailto:ltalley@ucsd.edu)). Except in the case of a directly supported project post-doc, there is no support from this NSF grant for post-cruise scientific analyses, only for time spent on final documentation, which is minimal for this program (almost all work is done at sea). This cruise-specific salary plus benefits support for the Chief Scientist should never exceed  $(3.0 \cdot D/30)$  months (where  $D$  = number of days at sea), and in general will be less than this amount, in many cases much less (typically 2.0), depending largely on pre- and post-cruise project-related activities for each person. A contract agreeing to the guidelines set out by the U.S. GO-SHIP Executive Council must be signed before travel preparations can be made.

## STILL WANT MORE INFORMATION?

This cruise is a U.S. contribution to international GO-SHIP <https://www.go-ship.org/>, which is part of the Global Ocean Observing System (GOOS) (<https://www.goosocean.org/>). GO-SHIP is tracked along with other GOOS observing systems through OceanOps (<https://www.ocean-ops.org/board>).

You can read more about the U.S. GO-SHIP program at: <https://usgoship.ucsd.edu/>

You can find data and cruise reports from previous P02 occupations at:  
<https://cchdo.ucsd.edu/search?q=P02>

Section-based graphics and maps from WOCE are available from the online Pacific Ocean Atlas at [http://whp-atlas.ucsd.edu/pacific\\_index.html](http://whp-atlas.ucsd.edu/pacific_index.html)

Further questions can be directed to Alison Macdonald ([amacdonald@whoi.edu](mailto:amacdonald@whoi.edu)).