

Making Waves with NOW

- This month's new releases:
 - Erin Firth: [Polar Microbes Give Peptide Clues for Detecting Life on Icy Worlds](#).
 - Rachel Harris: [FISH-TAMB: Visualizing Targeted Gene Expression in Living Microorganisms](#).
- Call for future [NOW Waves](#), please submit slide (pptx, jpg, pdf) to: kpietro@whoi.edu

NOW Upcoming Events

- January 10th 1pm ET/ 10am PT [NOW Lecture Series](#) Season 2, Episode 4 (*details to come*)
- April 21st NOW Steering Committee "Annual" Meeting

FLOW Upcoming Events

- Jan/ Feb 2022 [Early Career Proposal Writing Workshop](#) (*details to come*)

OW Themed AbSciCon Sessions Convened by NOW Colleagues (Abstract Deadline: Jan 19th, 2022)

- [Titan as a Prebiotic Laboratory](#)
- [A New Era for Ocean Worlds Science, Systems-Level Studies to Inform Future Mission and Assess the Possibility and Detectability of Life](#)
- [Deep Dive into the Geophysics of Ocean Worlds](#)
- [Crossing the Threshold: In Situ Instrumentation to Seek Life, its Precursors, and Geophysical Context on Europa and other Ocean Worlds](#)
- [Earth Geysers and Ocean World Plumes: The Challenges of Characterizing a Unique Environment](#)
- [Assessing Ocean Worlds: Challenges and technologies for sub-ice sampling and exploration](#)
- [Preparing for in-situ life-detection and habitability investigations through modeling, laboratory, and field analog experiments](#)
- [Prebiotic/ Abiotic Chemistry in Alternative Solvents](#)
- [In-situ instrumentation and novel analytical techniques towards discovery-based chemical research](#)
- [General principles of life: towards understanding universal biology](#)
- [Life in Deep Subsurface Ice](#)
- [Life at high pressure: the Astrobiology of deep subsurface environments](#)
- [Hydrocarbon Worlds: Titan as an Exoplanet Analogue](#)

Other Meetings, Workshops and Activities

- Jan 1-Oct 2 [Deep Ocean Early-Career Researchers \(DOERS\) Professional Development Program](#)
- Jan 7 [COBRA: Crustal Ocean Biosphere Research Accelerator \(C-DEBI\)](#)
- Jan 11 [Neptune/ Triton System Seminar Series: Dr. Corey Cochrane](#)
- Jan tbd [Professional Advancement Workshop Series](#)
- Jan 22-24 [Gordon Research Seminar: Challenging Paradigms in Prebiotic Chemistry](#)
- Jan 23-29 [Gordon Research Conference: Origin of Life](#)
- Jan 30-Feb 5 [Gordon Research Conference: Geobiology](#)
- Feb 6-11 [Winter School on Atmosphere-Ocean-Sea Ice Interaction Processes](#)
- Feb 27-Mar 4 [Ocean Sciences 2022](#)
 - Session [HL18 Ocean Science for Ocean Worlds](#)
- Mar 4 [Seafloor Fluid Sampling \(C-DEBI\)](#)
- Mar 7-12 [Lunar and Planetary Science Conference](#)
- Mar 14-18 [ICAT Ice Core Analysis Techniques PhD school](#)
- Mar 21-25 [Space Science Week](#)
- April 19-20 [OPAG](#)
- TBD Life Detection Science & Technology Workshop
- May 15-20 [AbSciCon](#)
- July 16-24 [COSPAR](#)
 - Session [B5.1: Ocean Worlds; B0.1: Comparative Planetology](#)

Recent Publications Relevant to Ocean Worlds

- [Dick and Shock 2021](#). The Release of Energy During Protein Synthesis at Ultramafic-Hosted Submarine Hydrothermal Ecosystems, JGR Biogeosciences, <https://doi.org/10.1029/2021JG006436>

Career Opportunities

- [Tenure Track Scientists](#) (10 Positions), Woods Hole Oceanographic Institution
- [Senior Scientist for Astrobiology](#), NASA Ames (open until filled)
- [Associate or Full Professor of Geobiology](#), University of Southern California (open until filled)
- [Postdoc with Rensselaer Astrobiology research and Education Center](#) (open until filled)
- [Department Chair-Earth and Planetary Sciences, University](#) of Texas San Antonio (open until filled)
- [Research Scientist in Marine Geology and Geophysics](#), Columbia LDEO (open until filled)
- [Postdoctoral positions in Fluid-Rock Interactions & Investigation of Deep Subsurface Life](#), Stable Isotope Laboratory, University of Toronto (open until filled)
- [Assistant Professor in Geology](#), West Texas A&M University (open until filled)
- [Assistant Professor in Sedimentary Processes](#), Boston College (open until filled)

Proposal Calls

- [FINESST](#), Future Investigators in NASA Earth and Space Science Technology (2/11/2022)
- [TWSC](#) Topical Workshops, Symposia, and Conferences (5/13/2022)
- [PSEF](#) Planetary Science Enabling Facilities Program (deferred to 2022)

News, Education, and Outreach

- [National Academy Ocean Shot](#): Ocean Science for [Ocean Worlds](#)
- Subscribe to the [NASA Astrobiology Mailing List](#)

