

Opportunity Title: ICAR - Follow the Volatiles: from Protoplanetary Disks to Exoplanet Atmospheres

Opportunity Reference Code: 0012-NPP-NOV23-ABProg-Astrobio

Organization National Aeronautics and Space Administration (NASA)

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How to Apply All applications must be submitted in [Zintellect](#)

Application Deadline 11/1/2023 6:00:59 PM Eastern Time Zone

Description Description:

Follow the Volatiles!

The next decades will see the first atmospheric characterization of potentially habitable planets around other stars, taking the first step in the search for biosignatures beyond the Solar System. The search for spectroscopic signatures of biogenic gases in the atmospheres of extrasolar planets is a pillar of astrobiology and one of the most promising avenues for finding evidence of life beyond the Solar System. While the road to living worlds stretches decades into the future, the decade in front of us will include discoveries from the James Webb Space Telescope (JWST) and other extremely large telescopes that will be distinguished by statistical studies of atmospheres over a broad range of planet and host star properties.

To prepare for the search for life and this epoch of atmospheric characterization, UC Santa Cruz partnered with University of Hawaii at Manoa, University of Colorado at Boulder, University of Kansas, and NASA Ames Research Center to assemble a [team](#) with a data-driven approach that focuses on the questions that can be hypothesis tested today to accelerate and support the search for biosignatures in the near future. This interdisciplinary team is carrying out a synergistic [program](#) of observations, laboratory experiments, and modeling to understand the journey of volatiles, particularly but not limited to carbon and oxygen-containing species, from protoplanetary disks to exoplanet atmospheres.

More information at: <https://astrobiology.science.ucsc.edu/icar/>

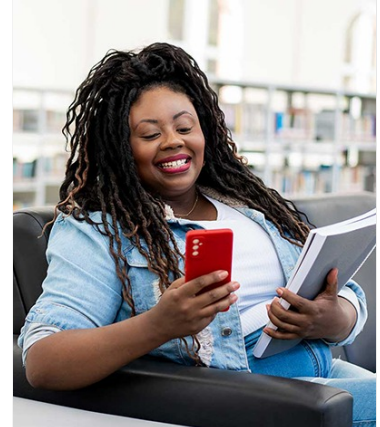
Applicants who apply for this research opportunity and are subsequently selected for an NPP award are expected to attend the Astrobiology Graduate Conference (AbGradCon) and/or the Astrobiology Science Conference (AbSciCon) using the travel funds that are conferred as part of the NPP award.

Field of Science: Astrobiology

Advisors:

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Eligibility is currently open to:

- U.S. Citizens;
- U.S. Lawful Permanent Residents (LPR);
- Foreign Nationals eligible for an Exchange Visitor J-1 visa status; and,
- Applicants for LPR, asylees, or refugees in the U.S. at the time of application with 1) a valid EAD card and 2) I-485 or I-589 forms in pending status

Eligibility Requirements • **Degree:** Doctoral Degree.