

Opportunity Title: ICAR - Probing Origin of Life Possibilities, Atmospheric Redox, & Terrestrial Environment Evolution

Opportunity Reference Code: 0043-NPP-NOV26-ABProg-Astrobio

Organization National Aeronautics and Space Administration (NASA)

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

Please visit the NASA Postdoctoral Program website for application instructions and requirements: [How to Apply | NASA Postdoctoral Program \(orau.org\)](#).

A complete application to the NASA Postdoctoral Program includes:

1. Research proposal
2. Three letters of recommendation
3. Official doctoral transcript documents

Application Deadline 11/1/2026 6:00:59 PM Eastern Time Zone

Description About the [NASA Postdoctoral Program](#)

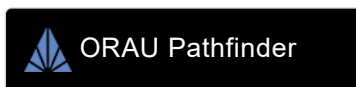
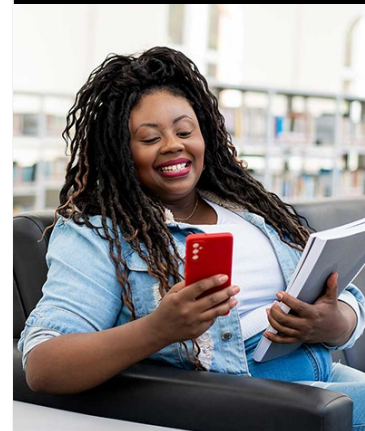
The [NASA Postdoctoral Program \(NPP\)](#) offers unique research opportunities to highly-talented scientists to engage in ongoing NASA research projects at a NASA Center, NASA Headquarters, or at a NASA-affiliated research institute. These one- to three-year fellowships are competitive and are designed to advance NASA's missions in space science, Earth science, aeronautics, space operations, exploration systems, and astrobiology.

Description:

Our team is driven by a single compelling question at the center of NASA's search for life beyond Earth: Were early Mars environments favorable for an origin of life?

There is compelling evidence for liquid water and potentially ""habitable"" environments on early Mars. However, past studies have overwhelmingly considered habitable environments as places where Earth life could potentially survive with limited attention towards whether or not an origin of life could occur. It thus remains unknown whether Mars hosted surface environments that could have been conducive to an origin of life, despite abundant and diverse evidence for water in its distant past. Addressing this issue is of critical importance for our ongoing search for life on Mars. Moreover, exploring environments for an origin of life on early Mars for which we have surviving geological archives could inform environments for the origin of life here on Earth for which we have no geological record.

We strive to systematically evaluate key features of the early Mars environment with relevance to the origin of life. Our interdisciplinary team includes geologists, geochemists, geophysicists, climate scientists, and prebiotic chemists. Together we will integrate existing rover and orbiter measurements at Mars with (ii) measurements of Martian meteorites, (iii)



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field work at Earth analog sites, (iii) geochemical and climate modeling, and
(iv) laboratory experiments. Our study will ultimately provide a more
nuanced view of early Mars habitability--and provide a window to
environments on Hadean Earth at the dawn of life.

Field of Science: Astrobiology

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Eligibility is currently open to:

- U.S. Citizens;

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- 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

Questions about this opportunity? Please email npp@orau.org

Point of Contact [Mikeala](#)

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