

**Opportunity Title:** ORNL Microbiology and Synthetic Biology Post-Bachelor

**Opportunity Reference Code:** ORNL17-13-BSD

**Organization** Oak Ridge National Laboratory (ORNL)

**Reference Code** ORNL17-13-BSD

**Description** Metabolic engineering of *Pseudomonas putida* for enhanced biofuel production from lignin and lignocellulosic biomass: *Pseudomonas putida* is an obligately aerobic bacterium that can grow on diverse aromatic compounds that can be derived from lignin. In order to convert lignin into value-added chemicals, *P. putida* needs to be genetically modified. This project will focus on improving genetic tools to simplify and accelerate the modification of *P. putida* and using these tools to modify metabolism to enhance biofuel and chemical production from lignin.

Applicants cannot have received the most recent degree more than three years prior to the date of application and must complete all degree requirements before starting their appointment.

This ORNL Postgraduate Research Associates Program is administered by ORAU through its contract with the U.S. Department of Energy to manage the Oak Ridge Institute for Science and Education (ORISE).

**Qualifications** Bachelors Degree in Biology, Microbiology, Molecular Biology, or related fields.


Required:

Experience in molecular biology

Experience in microbiology

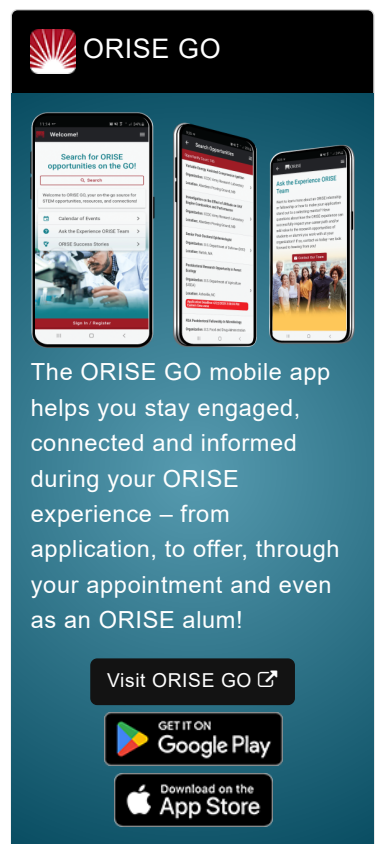
Preferred:

Experience in microbial genetics

- Eligibility Requirements**
- **Degree:** Bachelor's Degree received within the last 36 month(s).
  - **Academic Level(s):** Post-Bachelor's.
  - **Discipline(s):**
    - **Life Health and Medical Sciences** ([3](#) 


**Affirmation** I certify that I have completed coursework towards a degree in science, technology, engineering, mathematics, or a related field.


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