

# Postdoctoral Scholar - Synthetic or Molecular Biology, Microbiology, Biochemistry, Cyanobacteria

Job #JPF03106

- FOOD & FUEL FOR 21 CENTURY / Research / UC San Diego

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## POSITION OVERVIEW

**Position title:** Postdoctoral Scholar

## APPLICATION WINDOW

**Open date:** January 13th, 2022

**Next review date:** Thursday, Jan 27, 2022 at 11:59pm (Pacific Time)

Apply by this date to ensure full consideration by the committee.

**Final date:** Saturday, Dec 31, 2022 at 11:59pm (Pacific Time)

Applications will continue to be accepted until this date, but those received after the review date will only be considered if the position has not yet been filled.

## POSITION DESCRIPTION

A fully-funded post-doctoral position is available in the Food & Fuel for the 21st Century/Division of Biological Sciences at the University of California, San Diego under the supervision of Prof. Stephen Mayfield and Dr. Ryan Simkovsky. In collaboration with a number of industry leaders and academic groups at UCSD and across the nation, we are developing sustainable, recyclable, and biodegradable polyester polyurethane materials as replacements to petroleum-based plastics. To generate precursor chemicals for these materials in a sustainable manner, we are engineering cyanobacteria to directly convert sunlight and atmospheric carbon into biomass and chemicals that can be readily converted into polyurethane precursors and fuels. We are seeking a post-doctoral trainee to develop synthetic biology, metabolic engineering, and high throughput screening tools to alter a novel strain of cyanobacteria for increased production of biomass and chemicals in alkaline salt media. The trainee will evaluate strains in the laboratory for biomass and product yields, for which biochemical and analytical chemistry methods may need to be developed with collaborating groups in the Chemistry Department at UCSD. The successful candidate will then grow the most productive strains in 200-L raceway ponds at our greenhouse facility to generate enough biomass and products to work closely with collaborating groups in Chemistry, as well as with corporate partners, to purify products for generating polyurethane materials.

The University of California employs about 5,963 postdoctoral scholars (approx. 1,200 at UCSD) who contribute to the academic community by enhancing the research and education programs of the university. The postdoctoral experience emphasizes scholarship and continued research training. UC's postdoctoral scholars bring expertise and creativity that enrich the research environment for all members of the UC community, including graduate and undergraduate students. Appointment durations vary depending on the length of the research project and the availability of funding. The total duration of an individual's postdoctoral service may not exceed five years, including postdoctoral service at other institutions. The International Union, United Automobile, Aerospace and Agricultural Implement Workers of America (UAW) is the exclusive representative of the postdoctoral scholars.

Applications will be considered from PhD Biologists with experience in at least one of the following areas:

- o Synthetic or Molecular Biology,
- o Microbiology, or
- o Biochemistry

Review of applications will commence on January 27, 2022, and will continue until a qualified candidate is selected. Salary is commensurate with qualifications and based on published University of California pay scales.

**Unit:** <https://ff21.ucsd.edu/>

**Division:** <https://biology.ucsd.edu/>

## QUALIFICATIONS

**Basic qualifications** (required at time of application)

Doctorate degree in Biology or related field, with experience in at least one of the following:

- o Synthetic or Molecular Biology

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o Microbiology, or

o Biochemistry, or its equivalent in project area.

- Collaborative individual with a strong interest in our research and working at the interfaces between multiple academic disciplines and industry.
- Strong verbal and written communication skills

Appointment is dependent on academic experience, scholarly achievements, skills and knowledge and the needs of the ORU.

### Preferred qualifications

- Experience with cyanobacteria is preferred
- Postdoctoral or equivalent experience, and commitment to mentoring and research training service to build equitable and diverse scholarly environment.

## APPLICATION REQUIREMENTS

### Document requirements

- Cover Letter - o Cover letter summarizing your specific expertise and how you can contribute to the specific project
- Curriculum Vitae - Your most recently updated C.V.
- Statement of Research
- Statement of Contributions to Diversity - Applicants should summarize their past or potential contributions to diversity. See our [Faculty Equity](#) site for more information.  
(Optional)
- Misc / Additional (Optional)

### Reference requirements

- 3 required (contact information only)

Please submit the name and contact information for 3 professional references

**Apply link:** <https://apol-recruit.ucsd.edu/JPF03106>

**Help contact:** [phgodfrey@ucsd.edu](mailto:phgodfrey@ucsd.edu)

## CAMPUS INFORMATION

The University of California, San Diego is an Equal Opportunity/Affirmative Action Employer advancing inclusive excellence. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, age, covered veteran status, or other protected categories covered by the UC nondiscrimination policy.

As a condition of employment, you will be required to comply with the University of California [SARS-CoV-2 \(COVID-19\) Vaccination Program Policy](#). All Covered Individuals under the policy must provide proof of Full Vaccination or, if applicable, submit a request for Exception (based on Medical Exemption, Disability, and/or Religious Objection) or Deferral (based on pregnancy) no later than the applicable deadline. For new University of California employees, the applicable deadline is eight weeks after their first date of employment.

The University of California prohibits [smoking and tobacco](#) use at all University controlled properties.

The UC San Diego Annual Security & Fire Safety Report is available online at: <https://www.police.ucsd.edu/docs/annualclery.pdf>. This report provides crime and fire statistics, as well as institutional policy statement & procedures. Contact the UC San Diego Police Department at (858) 534-4361 if you want to obtain paper copies of this report.

## JOB LOCATION

La Jolla, CA