

Assistant/Associate/Full Project Scientist - Instrumentation  
Microscopy Advanced Bioimaging Center Department of  
Molecular and Cell Biology  
University of California Berkeley

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Posted Nov. 14, 2024, set to expire Dec. 13, 2024

**Job Title** Assistant/Associate/Full Project Scientist -  
Instrumentation Microscopy Advanced Bioimaging  
Center Department of Molecular and Cell Biology

**Department**

**Institution** University of California Berkeley  
Berkeley, California

**Date Posted** Nov. 14, 2024

**Application Deadline** 12/13/2024

**Position Start Date** Available immediately

**Job Categories** Research Scientist/Associate

**Academic Field(s)** Biology - Molecular  
Biology - Cell Biology  
Biology - General

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**Job Description**

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**Assistant/Associate/Full Project Scientist - Instrumentation Microscopy Advanced Bioimaging  
Center Department of Molecular and Cell Biology**

**Position overview Position title:** Project Scientist

**Salary range:** The UC academic salary scales set the minimum pay determined by rank and step at

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appointment. See the following table for the current salary scale for this position:

[https://www.ucop.edu/academic-personnel-programs/\\_files/2024-25/july-2024-scales/t37-b.pdf](https://www.ucop.edu/academic-personnel-programs/_files/2024-25/july-2024-scales/t37-b.pdf). A

reasonable estimate for this position is \$130,000 - \$195,000.

**Percent time:** 100%

**Anticipated start:** Fall/Winter 2024

**Position duration:** One year with the possibility of extension based on performance and availability of funding

### Application Window

**Open date:** November 13, 2024

**Next review date:** Thursday, Nov 28, 2024 at 11:59pm (Pacific Time)

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

**Final date:** Friday, Dec 13, 2024 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

The Advanced Bioimaging Center (ABC) in the Department of Molecular and Cell Biology at the University of California, Berkeley seeks applications for two Project Scientist at the Assistant, Associate, or full rank. The selected candidate will be appointed at the rank to commensurate with prior experience. The position will report to Professor Gokul Upadhyayula, with Professor Eric Betzig serving as an additional academic mentor. The project scientist will make significant and creative contributions in the area of molecular and cellular microscopy research.

The Advanced Bioimaging Center (ABC) at UC Berkeley aspires to be a world-leading multidisciplinary imaging center that drives important biological discoveries through critical new advances in all aspects of imaging technology and that drives the dissemination of that technology through a multi-pronged education strategy to scientists around the world. ABC was intentionally designed to maximize scientific productivity and impact by adopting groundbreaking imaging technologies such as the next-generation adaptive optical multifunctional microscope, incorporating the high-level technical expertise of instrumentation scientists, applied mathematicians, and computational scientists, and building worldwide collaborations aimed at tackling the challenges posed by terabyte and petabyte-scale

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imaging data processing, visualization, and dissemination. Members of the ABC have access to leading - edge imaging and computing hardware, as well as exposure to collaborators from a range of diverse disciplines, including in the fields of Artificial Intelligence, Data Science, Mathematics, and more.

The purpose of this project is to develop a foundation AI model capable of extracting biological insights from 4D (x,y,z,time) datasets of subcellular dynamics within physiological contexts and across scales. Incumbent will advance imaging to generate petabytes of targeted and high quality datasets necessary to prototype and build this model. The Assistant/Associate/Full Project Scientists will help develop and execute the research program focused around ABC's overarching goal of moving cell biology away from the coverslip and into physiological systems. These positions will work within a dedicated team to develop and refine the microscopy techniques. This position will manage projects and provide regular progress reports to PIs and collaborators.

The incumbent will spend 90% of their time on ABC research goals and managing and maintaining equipment in the lab and 10% of their time training/supervising collaborators, graduate students and postdoctoral fellows on MOSAIC/iAOLLSM capabilities.

Key responsibilities:

- Make significant and creative contributions to designing, building, and testing of a new high throughput adaptive optical inverted lattice light-sheet microscope (iAO-LLSM). This instrument aims to achieve a 10-fold increase in data acquisition throughput while maintaining the high-quality optical performance demonstrated in our previous work.
- Use, maintain, and oversee the operations of the two next-generation multimodal optical scopes with adaptive imaging correction (MOSAIC) microscopes at the ABC.
- Actively participate in handling/mounting biological samples on advanced microscopes and collect 4/5D datasets.
- Collaborate with a cross-disciplinary team of AI scientists, data engineers, instrumentation scientists and biologists and generate high resolution microscopy data using novel transparent developing organism reagents necessary to reach the goal of prototyping and training a 4D foundation model.
- Actively participate in national and international collaborations, presentation of research findings at scientific conferences, and publication of results in leading peer-reviewed journals.
- The incumbent will actively participate in and occasionally lead efforts to develop new projects.

These positions are eligible for full benefits.

**Lab**

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**Contract:** <https://ucnet.universityofcalifornia.edu/resources/employment-policies-contracts/bargaining-units/academic-researchers/contract/>

### Qualifications

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

- PhD (or equivalent international degree)

**Additional qualifications** (required at time of start)

- For the Assistant Project Scientist rank: 4+ years of postdoctoral research experience
- For the Associate Project Scientist rank: 8+ years of post PhD research experience
- For the Full Project Scientist rank: 14+ years of post PhD research experience

### Preferred qualifications

- PhD or equivalent international degree in Physics, Chemical or Biological Engineering, Molecular and Cell Biology, Systems Biology, Biochemistry, or Related Field.
- Experience or expertise in light microscopy, spectroscopy, or laser optics.
- Experience or experience with adaptive optics and lattice light sheet microscopy.
- Experience or experience designing and building custom microscopes.
- Ability to troubleshoot microscopy instruments, prepare samples, design research methodology.
- Proficient with CAD programs for instrument design (e.g. Autodesk Inventor or Solidworks).
- Ability to explain concepts to a variety of audiences; and oversee a laboratory space or unit.
- A strong preference for a record of imaging, characterization and analysis of live cells and biological tissues.
- Experience with data and image processing, evaluating image quality, visualizing and analyzing image data.
- Experience making figures and movies with microscopy data for publishing articles.
- Experience collaborating with labs in a wide variety of areas.
- Experience executing large imaging projects (tens of terabytes to multi petabyte-scale)
- Experience leading technicians
- Ability to review research proposals and ideas, evaluate research capabilities, and make recommendations.
- Ability to effectively communicate, participate in efficient and open collaboration, and engage with a diverse group of researchers.

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- The ideal candidate will be innovative and able to synergize various ideas and approaches, while exercising sound judgment to evaluate and take acceptable risks.

### Application Requirements

#### Document requirements

- Curriculum Vitae - Your most recently updated C.V.
- Cover Letter
- Statement of Research - Provide a summary of your major research accomplishments in approximately 250 words. Additionally, please include a brief statement highlighting your experience that is directly relevant to the key responsibilities of this position.
- Statement on Contributions to Diversity, Equity, Inclusion, and Belonging - Statement on your contributions to diversity, equity, inclusion, and belonging in research, teaching, and service, including information about your record of activities to date, and plans for contributing if hired at UC Berkeley. [More Information and guidelines.](#)

#### Reference requirements

- 3-5 required (contact information only)

Apply link: <https://aprecruit.berkeley.edu/JPF04660>

Help contact: [harrisonmd@berkeley.edu](mailto:harrisonmd@berkeley.edu)

### About UC Berkeley

UC Berkeley is committed to diversity, equity, inclusion, and belonging. The excellence of the institution requires an environment in which the diverse community of faculty, students, and staff are welcome and included. Successful candidates will demonstrate knowledge and skill related to ensuring equity and inclusion in the activities of their academic position (e.g., teaching, research, and service, as applicable).

The University of California, Berkeley is an Equal Opportunity/Affirmative Action Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, age, or protected veteran status.

Please refer to the [University of California's Affirmative Action Policy](#) and the [University of California's Anti-Discrimination Policy](#).



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In searches when letters of reference are required all letters will be treated as confidential per University of California policy and California state law. Please refer potential referees, including when letters are provided via a third party (i.e., dossier service or career center), to the [UC Berkeley statement of confidentiality](#) prior to submitting their letter.

As a University employee, you will be required to comply with all applicable University policies and/or collective bargaining agreements, as may be amended from time to time. Federal, state, or local government directives may impose additional requirements.

**Job location**

Berkeley, CA

To apply, visit <https://aprecruit.berkeley.edu/JPF04660>

**Contact Information**

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

**Contact**

N/A

University of California Berkeley

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