



Postdoctoral Scholar: Archaea Biology and Biomolecular Condensates

LOCATION

Bisson Lab (www.bissonlab.com)
and
Schrader Lab (www.biochemicalphysics.com)
Indiana University, Bloomington-IN

START DATE

March 2026 (flexible)

APPOINTMENT

Full-time, 3 years with strong potential for renewal via follow-up grants. Competitive salary and title commensurate with experience and follows current NIH guidelines..

OVERVIEW

The Bisson and Schrader labs in the Department of Biology at Indiana University invites applications for a highly motivated Postdoctoral Scholar to lead an exciting project exploring new aspects of molecular biology in archaea, with a focus on Biomolecular Condensates (BMCs) or other novel aspects of subcellular organization.

This project will investigate the formation, regulation, and function of protein/nucleic acid condensates in archaeal model organisms to uncover fundamental organizational principles in the third domain of life. The successful candidate will employ a multidisciplinary approach combining classical microbial genetics with cutting-edge techniques in molecular biology, biochemistry, and biophysics.

KEY RESPONSIBILITIES

- Design and execute independent research projects focusing on condensate formation and function in archaea.
- Employ techniques such as TIRF microscopy, single particle tracking, RNA-sequencing, genetics, and cell biology.

- Culture and manipulate archaeal model organisms.
- Analyze, interpret, and present research findings at lab meetings, institutional seminars, and international conferences.
- Prepare manuscripts for publication in high-impact journals.
- Mentor junior lab members (students, research assistants) and contribute to a collaborative lab environment.
- Assist with grant writing and lab management as needed.

QUALIFICATIONS

We welcome candidates with diverse backgrounds and expertises across Biophysics, Material Science, Cell Biology, Synthetic Biology, Biochemistry, and related fields.

Required Skills:

- Ph.D. or equivalent in Biochemistry, Cell Biology, Biophysics, or related discipline.
- Strong record of research productivity demonstrated by peer-reviewed publications.
- Expertise in molecular biology and protein and RNA biochemistry
- Excellent written and oral communication skills in English.
- Ability to work independently and as part of a team.

Preferred skills (not all required):

- Experience working with archaea or other non-model microorganisms.
- Hands-on experience with the study of Biomolecular Condensates/LLPS.
- Expertise in biophysical approaches (super-resolution and single-molecule microscopy, cryo-EM, etc), especially in the context of in vitro reconstitution systems, is a strong plus.
- Proficiency in bioinformatics and large-scale data analysis

HOW TO APPLY

Interested candidates should submit the following materials electronically to Alex Bisson (bisson@iu.edu) and Jared Schrader (jaschrad@iu.edu):

1. Curriculum Vitae (CV) including a complete list of publications.
2. Cover-Letter (two pages max) outlining research interests, relevant experience, and career goals.
3. Contact information for three professional references.

Review of applications will begin immediately and continue until the position is filled.