

BIOLOGICAL SCIENCES | INDUSTRY ROADMAP

Career Paths and Desired Skills

From CRISPR gene editing technology to global climate change solutions, UChicago's cutting-edge biological sciences curriculum prepares students for a variety of careers. Biological sciences students pursue a range of research and internship opportunities and are well suited to explore career paths in academia, industry, non-profits, and government. Hands-on experiences in the lab and industry equip students with the foundational skills needed to pursue meaningful careers in sectors such as medical devices, bioengineering, biotech, pharmaceuticals, computational biology, and bioinformatics.

Entry-Level Role

COMPUTATIONAL BIOLOGIST

A computational biologist studies biological systems through the use of mathematical modeling and analysis of large biological data sets with the goal of providing predictive insight of biological systems from experimental data. This role is a great avenue to bridge the gap between biology and computer science, ultimately providing a deeper insight into the understanding of extraordinarily complex systems.

Skills: Analytical and problem-solving skills | Computer programming | Attention to detail | Organization | Creativity

Key Functions

- Large scale data analysis using computational methods and programming languages
- Development of models to simulate complex biological processes
- Database and software development and management

Internships to help you get there

- Biomedical Data Intern, Center for Translational Data Science
- Computational Trainee, Salk Institute for Biological Sciences

FOOD SCIENTIST

Food Scientists play a vital role in ensuring that the food we consume is safe and nutritious. This dynamic role provides a career where culinary creativity is combined with scientific precision to develop, produce and ensure the safety of the foods we all enjoy. Career opportunities can span academic, government, and industry spaces.

Skills: Problem solving | Analytical and quantitative research skills | Strong ethicals | Adaptability | Attention to Detail

- Research and development of food products; exploring innovative ingredients and technologies
- Develop and implement procedures to prevent foodborne illnesses
- Explore avenues to make agriculture and food production more sustainable

- Pathways Internship Program, USDA
- R&D Product Engineering Intern, Nature's Fynd

BIOLOGICAL RESEARCH ASSOCIATE

Research associates conduct research at a variety of institutions, ranging from academia to national laboratories. Industry jobs are also available to conduct research at organizations that develop products or techniques.

Skills: Analytical thinking | Strong communicator | Creativity | Interpersonal Skills | Attention to detail | Organization

- Carefully prepare and conduct experiments
- Analyze data to inform future research plans
- Communicate research findings in both written and oral formats

- Bioanalytics Intern, ReCode Therapeutics
- Summer Researcher, BSCD Fellowship

COMPUTATIONAL NEUROSCIENTIST

Computational neuroscientists bridge diverse STEM fields including biology, neuroscience, mathematics, computer science and more to understand how the brain works through the use of computational and mathematical modeling. Career opportunities can span academia, pharmaceutical and medical device companies, and government agencies.

Skills: Problem solving | Programming | Computational Modeling | Data Analysis | Interdisciplinary Collaboration

- Development and simulation of complex biological processes
- Design of hardware and software
- Interdisciplinary collaboration to integrate computational modeling with empirical data

- Undergraduate Researcher, NESSTP Fellowship
- Summer Intern, Allen Institute

BUILDING EXPERIENCE FOR CAREERS IN BIOLOGICAL SCIENCES

Career Advancement offers a number of events and resources to help prepare you for a career in Biological Sciences!

EVENTS

Fall Quarter

- September 30 | Applications Open for Winter Break STEM Treks to Paris and Lyon, France; Nairobi, Kenya; and Santa Clara, CA
- October 1 | Moderna Information Session
- October 1 | Meet the UChicago Champions Employer Networking
- October 2 | UChicago Career & Internship Fair
- October 8 | Mayo Clinic Information Session
- October 22 | National Lab Application Bootcamp
- October 30 | EPIC Climate Frontiers Career Fair
- November 11 | BSCD Fellowship Applications Open
- November 21 | Trek to Argonne National Lab
- December 20 | Neuroscience Early Stage Scientist Training Program (NESSTP) Application Opens

Winter Quarter

- January 14 | STEM Recruiting Night
- January 21 | Applications due for for Spring Break STEM Treks to Seattle, San Francisco, Los Angeles, and Washington, D.C.
- January 23 | BSCD Fellowships Information Session
- February 6 | Academic Coffee Connections with Faculty & Researchers
- February 20 | Careers in Biological Sciences Office Hours

Spring Quarter

- April 7 | BSCD Fellowships Application Deadline
- Mid-April | Behavioral Science Case Competition
- April 24-25 | Quantum Recruiting Forum
- May 6 | Summer Success Series: Preparing for Research Roles
- May 13 | Summer Success Series: Preparing for Industry Internships

REPRESENTATIVE EMPLOYERS, GRADUATE SCHOOLS, AND FUNDING OPPORTUNITIES

Research Institutes & National Labs

Marine Biological Laboratory
Argonne National Laboratory
Allen Institute
Lincoln Park Zoo
Scripps Institution of Oceanography
Salk Institute for Biological Studies
Fred Hutch Cancer Center

Industry

Moderna
Cargill
Gingko Bioworks
Abott
AbbVie
Impossible Foods

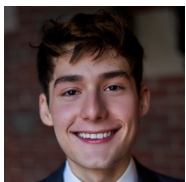
Graduate Schools

Columbia University
Harvard University
MIT
Northwestern University

Funding & Fellowship Opportunities

BSCD Fellowships
NESSTP Fellowships
National Science Foundation's Graduate Research Fellowship (NSF GRFP)
Fulbright Fellowship

Adrian Kwiatkowski, AB'24



Major: Biological Sciences
Minor: Visual Arts
Involvement: Phoenix Biology, The Triple Helix
Post-Graduation Plans: Associate Researcher, Icahn School of Medicine at Mount Sinai

Zyva Sheikh, SB'24



Major: Biological Sciences
Minor: Molecular, Cellular, and Tissue Engineering
Involvement: Hibino Lab-UChicago Medicine; MODA Magazine
Post-Graduation Plans: Research Associate at 3D BioLabs