

Biochemists and Biophysicists

SOC: 19-1021 • Career Profile Report

■ Key Facts

\$103,650

Median Salary

35,600

Employment

+6.0%

Growth Rate

■ Requirements & Salary Range

Education: Doctoral

■ Automation Risk Assessment

Low Risk - 8.0% probability of being automated in the next 10-20 years.

This job is relatively safe from automation due to its creative, social, or complex problem-solving requirements.

■■ Work-Life Balance

6.7/10 - Good work-life balance

■ Personality Fit (RIASEC)

Higher scores indicate better personality fit for this career type.

Realistic	6.2/10	Investigative	9.4/10
Artistic	5.6/10	Social	6.4/10
Enterprising	4.8/10	Conventional	6.4/10

■ Top Skills Required

Analytical skills, Communication skills, Critical-thinking skills, Interpersonal skills, Math skills, Perseverance, Problem-solving skills, Time-management skills

✓ Strengths

- High Demand
- Flexible Work
- Continuous Learning

■ Challenges

- Burnout Risk
- Rapid Technological Change

■ What They Do

Biochemists and Biophysicists typically perform the following tasks:

- Share research findings by writing scientific articles or by making presentations at scientific conferences.
- Teach or advise undergraduate or graduate students or supervise their research.
- Study physical principles of living cells or organisms and their electrical or mechanical energy, applying methods and knowledge of mathematics, physics, chemistry, or biology.
- Manage laboratory teams or monitor the quality of a team's work.
- Develop new methods to study the mechanisms of biological processes.
- Write grant proposals to obtain funding for research.
- Design or perform experiments with equipment, such as lasers, accelerators, or mass spectrometers.
- Determine the three-dimensional structure of biological macromolecules.
- Design or build laboratory equipment needed for special research projects.
- Prepare reports or recommendations, based upon research outcomes.
- Study spatial configurations of submicroscopic molecules, such as proteins, using x-rays or electron microscopes.
- Study the chemistry of living processes, such as cell development, breathing and digestion, or living energy changes, such as growth, aging, or death.
- Study the mutations in organisms that lead to cancer or other diseases.
- Research the chemical effects of substances, such as drugs, serums, hormones, or food, on tissues or vital processes.
- Research transformations of substances in cells, using atomic isotopes.
- Develop or execute tests to detect diseases, genetic disorders, or other abnormalities.
- Develop or test new drugs or medications intended for commercial distribution.
- Isolate, analyze, or synthesize vitamins, hormones, allergens, minerals, or enzymes and determine their effects on body functions.
- Examine the molecular or chemical aspects of immune system functioning.
- Research how characteristics of plants or animals are carried through successive generations.

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Source: <https://www.bls.gov/ooh/life-physical-and-social-science/biochemists-and-biophysicists.htm>