

LEARNING DISCOVERY IMPACT

Executive Summary
BIOS Strategic Plan: 7/1/2021 - 6/30/2026
Department of Biological Sciences



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EXECUTIVE SUMMARY

The Department of Biological Sciences at Notre Dame (BIOS) seeks to understand the fundamental mechanisms by which living systems operate and employs a wide range of cutting-edge and innovative approaches and systems. Diverse disciplines and programs in the life sciences from throughout the University converge here to catalyze the development of new knowledge and groundbreaking ideas. Research is at the center of our endeavors; it fuels and inspires our teaching and community engagement and translation efforts.

Our overall mission is to be a global force for good by advancing fundamental biological knowledge via excellence in multidisciplinary research and education to understand biological systems and improve environmental and human health.

We continually strive for improvement by investing in our people, growing and transforming our research enterprises, enhancing our educational programs, cultivating intramural and extramural partnerships, and implementing operational efficiencies. We affirm that diverse groups are more productive and innovative than less diverse groups and offer more opportunities for educating and preparing the next generation of life scientists that we hope will vary in their ethnicities, nationalities, sexuality, gender, gender identity, age, and skin color. We are committed to promoting diversity, equity, and inclusion in the pursuit of excellence in learning and discovery, which permeates this strategic plan and is consistent with the University of Notre Dame Initiative Moment to See, Courage to Act (<https://provost.nd.edu/about/provosts-initiatives/moment-to-see-courage-to-act/>). This initiative is dedicated to addressing inequities locally, regionally, and globally and is expected to serve as the foundation for the University's new strategic plan next year.

Aerial view of the Notre Dame campus





Skyline view of the Notre Dame campus

To determine BIOS' strengths and challenges, the Strategic Planning Committee gathered baseline data on the department from within the University and from Academic Analytics, an organization that gathers data on publications, citations, books, grants, and awards for every faculty member in the country, and also implemented departmental surveys, town hall meetings, and faculty meetings. The following three attributes were identified as strengths of BIOS.

- 1 **Of the 230 biological departments in the country, BIOS is currently ranked 20th based on the scholarly research index** used by Academic Analytics, and performs above the 80th percentile in most publication, citation, grant, and award categories.
- 2 **The multidisciplinary nature of BIOS is an asset**, as its diverse faculty elevate the stature of the Department as a whole.
- 3 **BIOS has a record of sustained excellence in teaching and training.**

The Strategic Planning Committee also identified the following challenges that BIOS faces.

- 1 Filling hiring and curricular needs.
- 2 Further enhancing disciplinary bridges and diversity, equity, and inclusion within the department.
- 3 Continuing to advance our research reputation while maintaining our excellence in teaching and training

Based on this introspection, **the BIOS vision is to be a top 15 biological department in the nation based on research and a leader at the University of Notre Dame in developing and implementing innovative and effective teaching practices and advancing diversity, equity, and inclusion.**

Our strategic plan is designed to be a five-year road map for how we are going to achieve this vision; however, our plan is also a living document that will be re-evaluated and improved annually. **The three strategic goals** of BIOS are to:

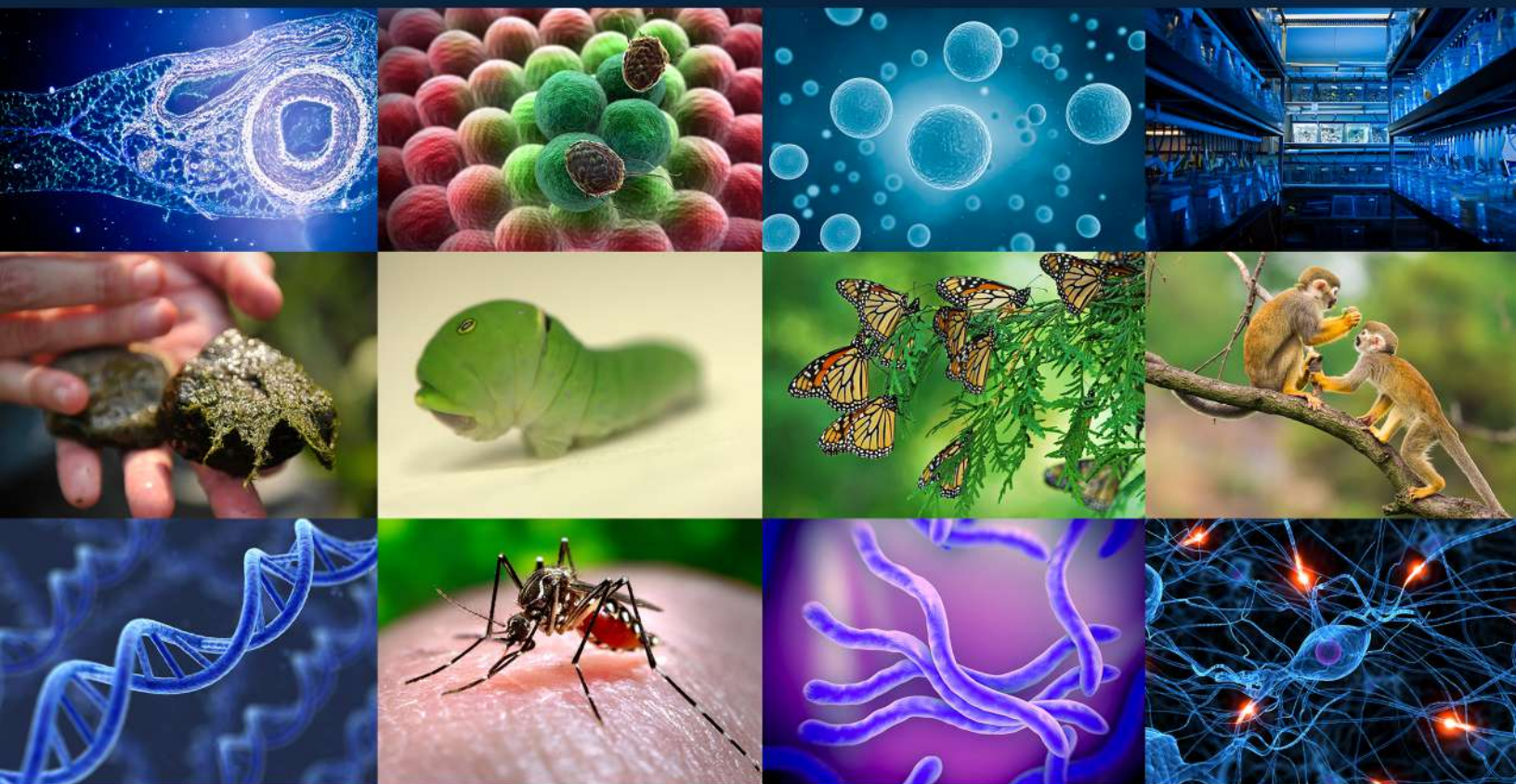
- 1 Support research and curricular efforts of BIOS by:
 - a. implementing strategic hiring
 - b. enhancing departmental diversity, equity, and inclusion
 - c. strengthening bridges within the department and across the University
 - d. facilitating collaborative research and grant opportunities
- 2 Advance teaching, training, and mentorship by:
 - a. maintaining BIOS strengths and contributions to the University
 - b. addressing teaching, training, and mentoring challenges
- 3 Improve tracking of metrics through time and relative to BIOS' aspirational peers to assess progress toward our goals

Priorities for these three interconnected goals include:

Hire and retain faculty that maintain and enhance the BIOS and University missions, that are committed to the BIOS vision, that build on strengths of BIOS or burgeoning research disciplines, that increase capacity to serve its undergraduate and graduate students, and that enhance cultural competency and diversity within the academy.

Poster presentations at Jordan Hall of Science





Pictorial representation of research interests. Learn more at biology.nd.edu/research

Demonstrate systemic improvement in diversity, equity, and inclusion in BIOS.

Strengthen bridges across the disciplines in BIOS by: (i) promoting greater collaboration and respect for differences, (ii) increasing familiarity with our faculty colleagues by having more social events and seminars given by faculty within our department, and (iii) improving morale associated with more grants, faculty awards, and constructive feedback and mentoring.

Gather data to objectively identify our research strengths and weaknesses and begin tracking departmental research metrics through time to identify positive and negative trends and changes relative to our peer institutions.

Objectively identify specific research, teaching, training, and mentoring strengths and weaknesses. Use data as a guide to build upon BIOS' existing strengths, properly target resources towards weaknesses, and track progress towards the goals set out in this plan.

Enhance our direct impact on environmental and human health by recognizing and encouraging our academic community engagement and translation efforts.

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