

Biochemistry & Molecular Biology

2012 Department at a Glance

Points of Pride

- 325+ undergraduates are the result of a 50% increase over 6 years.
- 44% of BMB undergraduate majors are on the Dean's List.
- BMB Faculty were awarded over \$3.2 million in funding for research in the areas of biomedicine and plant growth and development from the following sources:
 - National Institutes of Health
 - National Science Foundation
 - U.S. Department of Agriculture
 - U.S. Department of Energy
 - American Heart Association

Education

- Molly Fitzgerald-Hayes wrote a textbook, *My DNA*, published in 2011.
- David Gross and Molly Fitzgerald-Hayes have been chosen as 2011-2012 Microsoft IMPACT Fellows for Blended Learning which provides support for blending online activities into traditional teaching methods.
- Department plays major roles in interdisciplinary programs across campus:
 - Institute of Cellular Engineering
 - The Institute for Massachusetts Biofuels Research
 - Chemistry-Biology Interface Program

Leadership & Outreach

- Alice Cheung received a UMass Amherst Research Leadership in Action Award to host a workshop co-sponsored by an NSF-supported Research Coordination Network grant.
- Alejandro Heuck was named a John Adams Investigator by the Mass Tech Collaborative's John Adams Innovation Institute.
- Alice Cheung was appointed to the Scientific Advisory Board for the Academia Sinica Institute of Plant and Microbial Biology, Taiwan.
- Danny Schnell was appointed to the Board of Trustees of the American Society of Plant Biologists.
- Members of BMB faculty serve on a dozen editorial boards of major journals.

Faculty Recruitment & Development

- Elizabeth Vierling joined the faculty at the rank of Professor.
- Dong Wang was hired as an Assistant Professor.
- Ludmila Tyler was hired as a Lecturer.
- Scott Garman received tenure.
- Jennifer Normanly was promoted to Full Professor.

Student & Postdoctoral Fellow Awards

- Laura Gates received a Summer Undergraduate Research Fellowship from the American Society of Plant Biologists.
- Hitoshi Inoue received a Japan Society for the Promotion of Science Postdoctoral Fellowship.
- Yadilette Rivera Colon, Mylene Ferrolino, Johan Sunryd, and Joanne Lau are recipients of Chemistry-Biology Interface Program Fellowships.



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By the Numbers FY11

Tenure-Track Faculty	15
Research Faculty	5
Postdoctoral Fellows	21
Undergraduate Majors	324
Graduate Students	21
Research Awards	\$3,472,800

Research Areas

Protein folding/trafficking and associated diseases:

Studies how proteins are made, delivered to proper cellular location, and folded into functional 3-dimensional structures; examines how defects in these processes lead to disease.

Mechanisms of cellular signal transduction:

Studies how signaling and metabolic networks are integrated and regulated to allow for proper cellular function and organismal development.

Gene expression and DNA maintenance:

Studies the transcription and replication of DNA, the structures of genomes and regulatory RNAs, the repair of damaged DNA, and the implications of these processes for cancer and developmental defects.