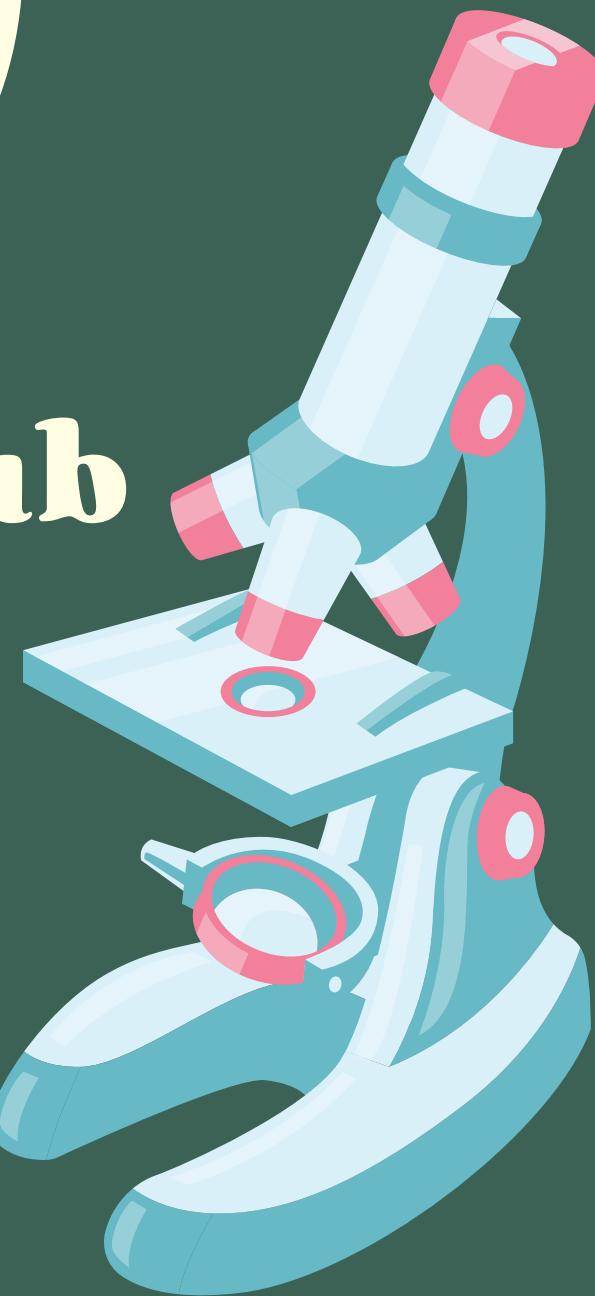


B.U.R.C

Biology Undergraduate Research Club

University of Massachusetts, Amherst



What is BURC?

**A space to get together and talk about research happenings
on & around campus, and how you can get involved!**

**Guest speakers, peer advice, and faculty mentors are all a
part of our team.**

Faculty Advisors

Dr. Laura Francis

Dr. Rosa Moscarella

Meet the E-Board

Secretary

President

Vice-President

Social Media

Treasurer

Community Outreach

Website Development

Events Coordinator

Goals for the Club

- Increase Awareness to Research
- Help those who want to get involved
- Talk about interests
- Explore different routes (Grad School, RAships)
- Explain unknown aspects of research on campus



What is Research?

- Trying to answer unanswered questions
- Coming up with new questions
- Understanding things yet to be understood
- Making connections
- Advancing the scientific field

Types of Research

- plant
- conservation
- ecological

- cell/molecular
- biomedical
- organismic

How do I figure out what I like?

- Classes
- Asking Around
- Posters and Papers

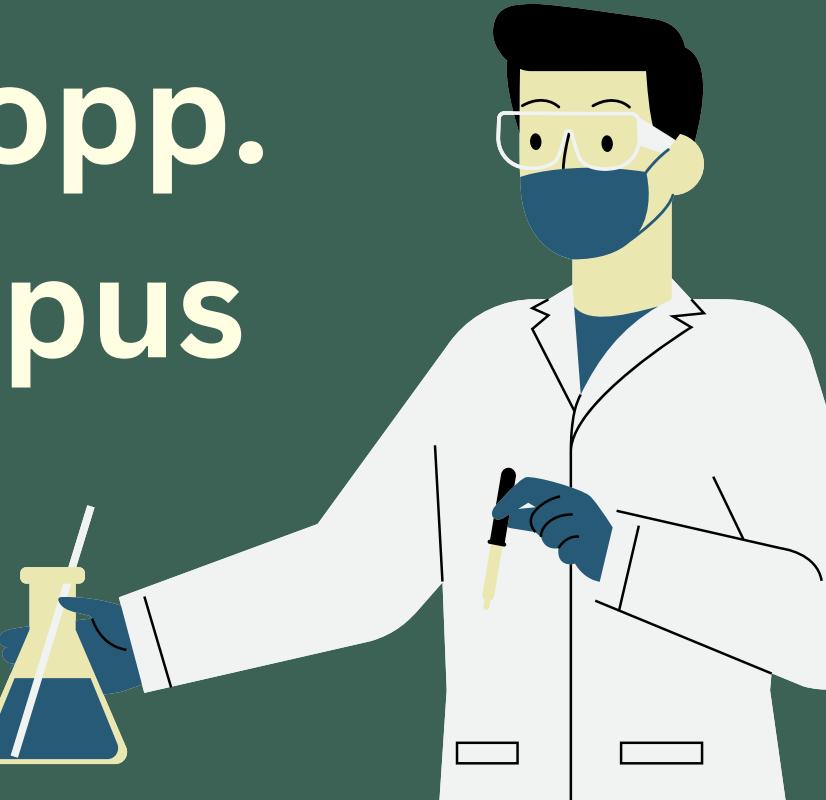
On-Campus Resources

BUA

- Once a semester
- Highly competitive
- Short deadline

OURS

- Year-round
- Helps with opp.
- On/Off campus



However...

However...

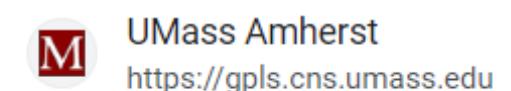
Cold Emails

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UMass Amherst

<https://gpls.cns.umass.edu>

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IDGP Diversity, Equity and Inclusion Statement ... The Interdepartmental Graduate Programs in Life Sciences (IDGPs) believe that a diverse, equitable and ...

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UMass Amherst

<https://blogs.umass.edu/mseidgp>

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The Interdisciplinary Graduate Program (IDGP) in Materials Science and Engineering (MSE) is a new program at **UMass Amherst** dedicated to training the next ...

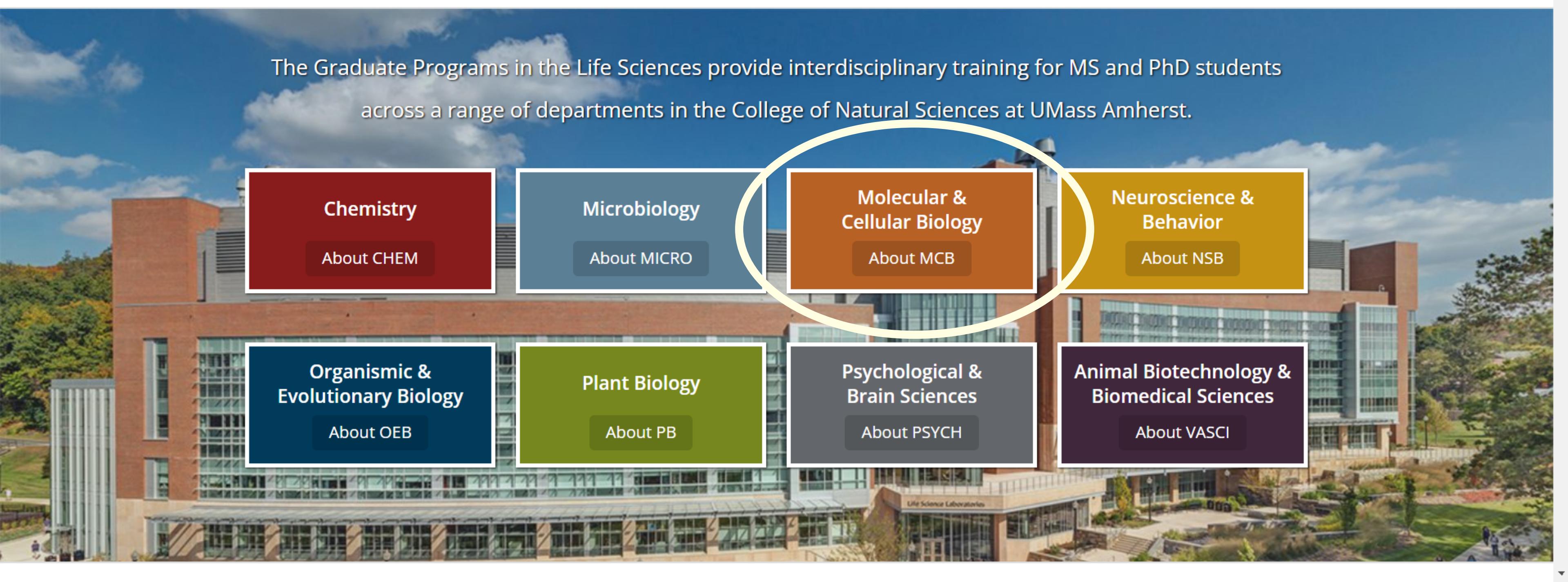


Graduate Programs in the Life Sciences

College of Natural Sciences at UMass Amherst

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The Graduate Programs in the Life Sciences provide interdisciplinary training for MS and PhD students across a range of departments in the College of Natural Sciences at UMass Amherst.



Chemistry

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Microbiology

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Molecular & Cellular Biology

[About MCB](#)

Neuroscience & Behavior

[About NSB](#)

Organismic & Evolutionary Biology

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Plant Biology

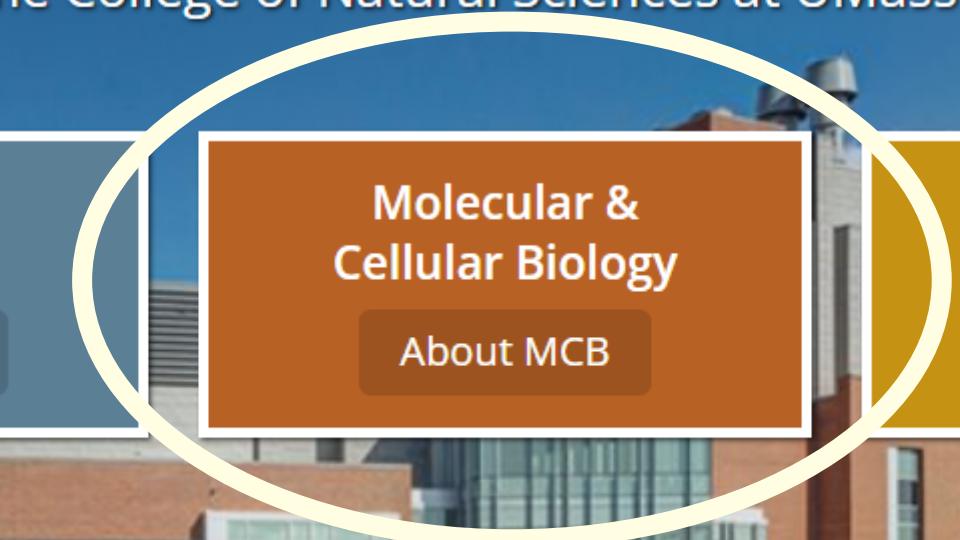
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Psychological & Brain Sciences

[About PSYCH](#)

Animal Biotechnology & Biomedical Sciences

[About VASCI](#)

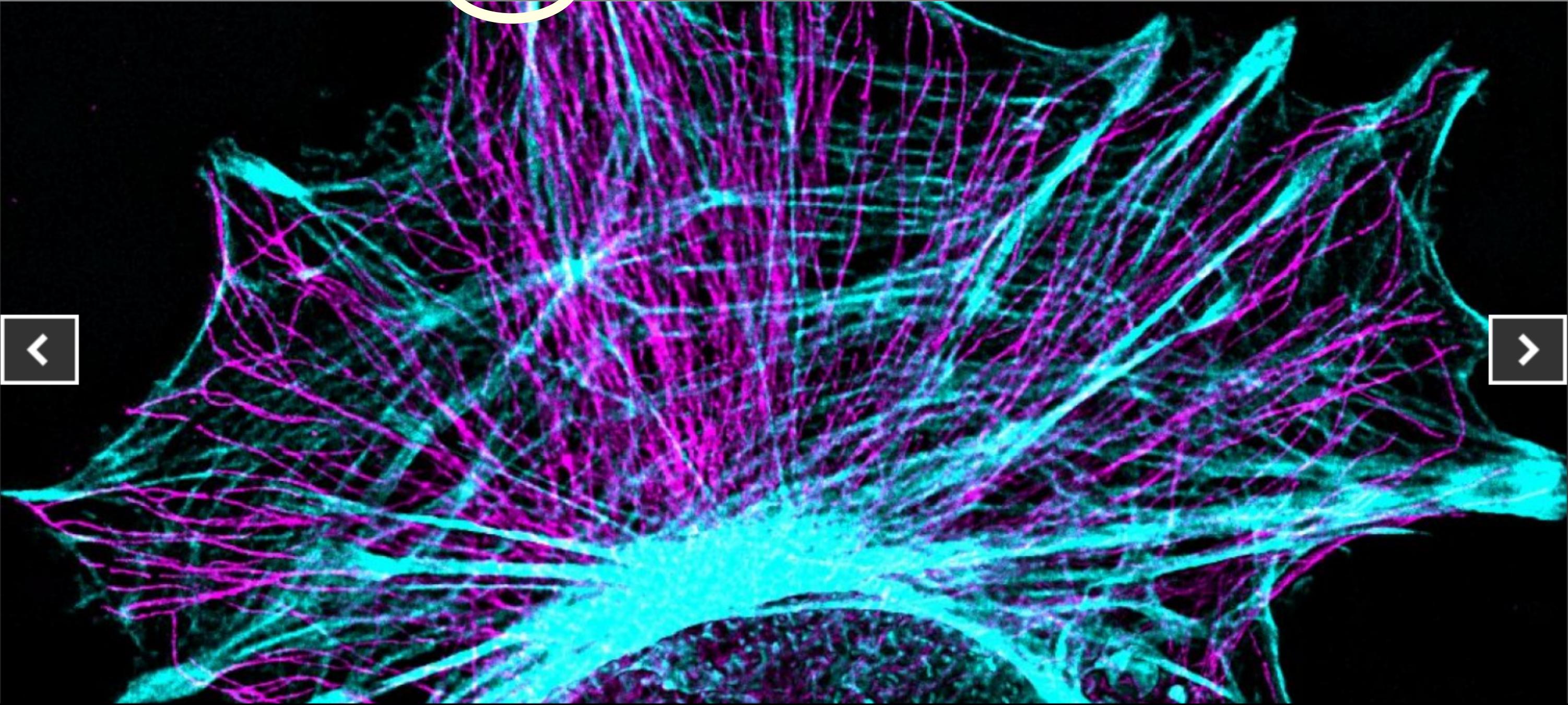


University of Massachusetts Amherst

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Faculty

Filter by research cluster:

- Biological Chemistry and Molecular Biophysics
- Biomedicine
- Cellular and Developmental Biology

[► Departmental/Campus Affiliation](#)[Filter](#)

Name	Research Interests
R. Craig Albertson Professor, Biology	Evolutionary Developmental Biology
Dominique R. Alfandari Professor of Developmental Biology, Veterinary and Animal Sciences	Cell migration in Developmental systems
Lauren Andrews Assistant Professor of Chemical Engineering	Uncovering genetic design rules to reprogram regulation and metabolism in living cells for applications in health and biotechnology

Upcoming Events

Mon, Sep 25 - 12:15pm

2nd Year Talks

May Chou**Divya Dubey**

MCB Colloquium

French Hall Room 209

Tue, Sep 26 - 4:00pm

Ribosome quality control

Gustavo Silva

MCB Seminar

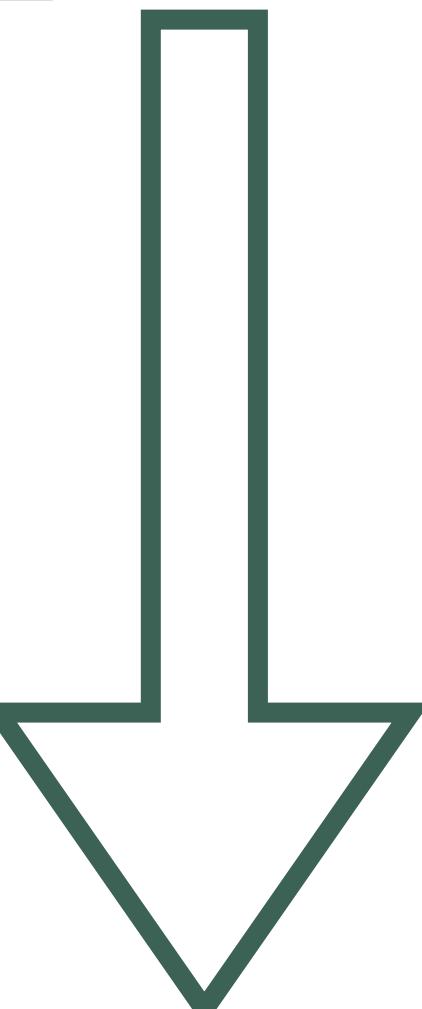
Mon, Oct 2 - 12:15pm

2nd Year Talks

Kairong Dong**Kyla Gomard-Henshaw**

MCB Colloquium

French Hall Room 209

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← → ⌂ gpls.cns.umass.edu/mcb/research/faculty



Michael J.F. Barresi Professor of Biological Sciences and Neuroscience, Smith College	Developmental Neurobiology, Assistant Neuron and Glial Cell Interactions; Astroglial Cell Development in the CNS
Madelaine Bartlett Associate Professor, Biology	Evolution of plant development; Molecular evolution
Tobias Baskin Professor, Biology	Regulation of Plant Morphogenesis During Growth & Development
Joseph Bergan Assistant Professor, Department of Psychological and Brain Sciences	We seek to understand the principles of how social and defensive stimuli are encoded in the activity of neurons, and how this process can be modulated by behavior state, experience, and neuromodulation.
Eric L. Bittman Professor Emeritus, Biology	Circadian Rhythms, Reproduction, and Seasonal Changes in Brain Function
Jeffrey L. Blanchard Associate Professor, Biology	Microbial cellular and community networks; influence of environmental change on the evolution of molecular processes; systems biology; bioinformatics
James Chambers Light Microscopy Director, Cell Culture Director, UMass Amherst	Applying novel chemical biology tools and emerging biophysical techniques to solve fundamental questions in neuroscience
Jianhan Chen Professor of Chemistry and Biochemistry & Molecular Biology	Computational Biochemistry & Biophysics
Min Chen Associate Professor of Chemistry, University of Massachusetts	Application of Proteins in Biotechnology; Functional Mechanism of Membrane Protein Pores, Channels and Transporters
Alice Cheung	Molecular and cell biology of male-female interaction and polarized cell

Jeffrey L. Blanchard



Associate Professor, Biology

jeffb@bio.umass.edu

A.S., Electrical Engineering, Vermont Technical College, 1983

B.S., Biology, Worcester Polytechnic Institute, 1987

Ph.D., Botany, University of Georgia, 1995

Research Interests

Microbiome research is among the most exciting and promising areas of science today due to many technological advances, particular in high throughput DNA and RNA sequencing, that allow us to determine in complex environments which microbes are present and their metabolism. A prominent component of our research is using genomic and computational methods to understand the ecology and evolution of gut and forest soil microbiomes. Our laboratory is set up for standard molecular biology and microbial physiology research and contains specialized equipment for isolating and culturing anaerobic bacteria. A major focus of our current research is understanding the soil community changes that result from long-term soil warming experiments at the Harvard Forest. The research we do has led to the discovery of new bacterial species and metabolic processes that have had far ranging impacts from probiotics to understanding climate change.

Links: [J. Blanchard Biology Department Web Site](#), [Blanchard Laboratory Web Site](#)

Upcoming Events

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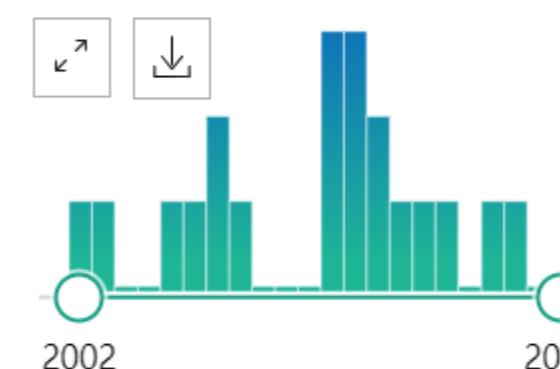
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RESULTS BY YEAR



TEXT AVAILABILITY

- Abstract
- Free full text
- Full text

ARTICLE ATTRIBUTE

- Associated data

 [Hidden diversity of soil giant viruses.](#)

- 1 Schulz F, Alteio L, Goudeau D, Ryan EM, Yu FB, Malmstrom RR, **Blanchard J**, Woyke T.
Cite Nat Commun. 2018 Nov 19;9(1):4881. doi: 10.1038/s41467-018-07335-2.
PMID: 30451857 [Free PMC article.](#)

 [Perspective: Evolution and detection of genetic robustness.](#)

- 2 de Visser JA, Hermisson J, Wagner GP, Ancel Meyers L, Bagheri-Chaichian H, **Blanchard JL**, Chao L,
Cite Cheverud JM, Elena SF, Fontana W, Gibson G, Hansen TF, Krakauer D, Lewontin RC, Ofria C, Rice SH, von
Dassow G, Wagner A, Whitlock MC.
Share Evolution. 2003 Sep;57(9):1959-72. doi: 10.1111/j.0014-3820.2003.tb00377.x.
PMID: 14575319 [Review.](#)

 [Tempo and mode of genome evolution in a 50,000-generation experiment.](#)

- 3 Tenaillon O, Barrick JE, Ribeck N, Deatherage DE, **Blanchard JL**, Dasgupta A, Wu GC, Wielgoss S,
Cruveiller S, Médigue C, Schneider D, Lenski RE.
Cite Nature. 2016 Aug 11;536(7615):165-70. doi: 10.1038/nature18959. Epub 2016 Aug 1.

Dear Dr. _____,

[Intro Sentence [“I hope the semester is treating you well”]]

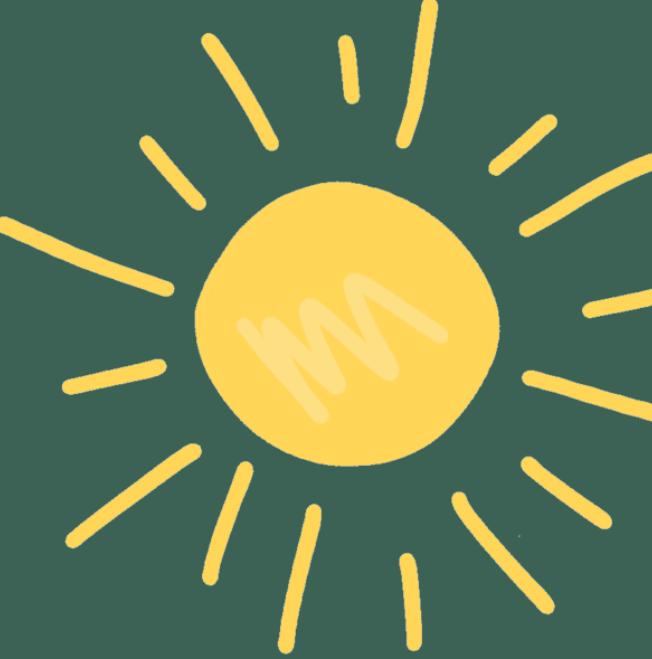
My name is ____, I am a [year] [Major] student. I am writing about opportunities for undergraduate research in your lab for [Time Frame].

I came across your research in _____, and I have a high interest in the field [2-3 specific sentences demonstrating interest in this field + PI's specific work]. I would love to learn more from you if you have a research position available.

I have also attached my resume/CV and transcript to this email. [If you don't have a resume/transcript YET, don't include this part]

[Outro Sentence [“I look forward to your response, thank you for your time”]

**Best Regards,
Name**

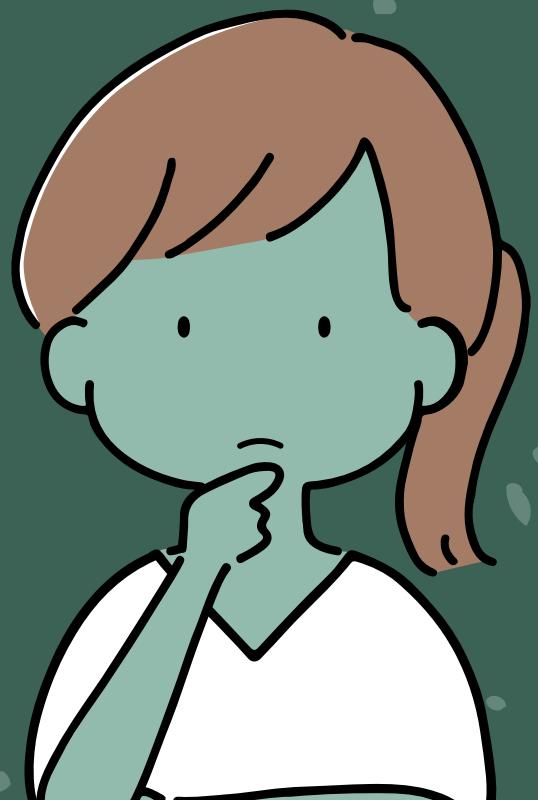


Summer Opportunities

REUs

Lee-SIP

why get Involved?



What does it mean to be involved?

What does it mean to be involved?





*Feel free to
chat with us!*

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