

BioNews – Summer 2021

In-person summer research returns to the Science Center!

The Science Center was a hub of activity this summer. The faculty in the Department of the Biology hosted more than 40 research students through the senior Honors program, the Summer Undergraduate Research Fellowship (SURF) program, and the Gregory S. Call fellowship program. **Prof. Marc Edwards** and **Dr. Julie Emerson**, were instrumental in the implementation of the STEM Incubator and Summer Bridge programs. And thanks to our amazing staff for helping to make it all possible!



Bacteria streaking by the Wu-Orr and Kim labs.

Summer research symposium

Mark your calendars for Monday, September 13th from 4-6 pm. Students who conducted their summer research in Bio faculty labs will be presenting their work, through a combination of “flash talks” starting at 4 pm in Lipton (E110) followed by a poster session in the Living Room. The event is open to everyone, including prospective Bio majors. Keep your eyes open for more details to be coming soon.

Biology faculty receive two major research grants

Prof. Marc Edwards was the recipient of a recent R15 award from the National Institutes of Health. The proposal, entitled “Investigating the regulation of PI(3,4)P2 in migrating cells” seeks to elucidate the mechanism of PI(3,4)P2's role in migration. Phosphatidylinositols serve as critical mediators of cellular signaling. PI(3,4)P2 has emerged as a critical regulator of cell migration. It has recently been proposed that a mutually inhibitory feedback loop between Ras and PI(3,4)P2 regulates the dynamic extension and retraction of cellular protrusions. This proposal will elucidate the mechanism by which Ras regulates PI(3,4)P2 and establish PI(3,4)P2 as a bona fide regulator of Ras-dependent leading-edge dynamics. Congratulations Marc!



A multi-faculty team, led by **Profs. Sally Kim and Marc Edwards**, secured a Major Research Instrumentation grant from the National Science Foundation. The grant, which is entitled “Acquisition of an integrated Zeiss 980 microscope with Airyscan 2 and FCS to advance multidisciplinary research, inclusive teaching, and outreach at Amherst College” will help lay the foundation for an improved microscopy facility in the Biology Department. Congratulations!



New publication from the Edwards lab

Prof. Edwards is a co-author on a new paper in *Cell Reports* entitled “SdhA blocks disruption of the Legionella-containing vacuole by hijacking the OCRL phosphatase.” The paper is a collaboration with the Isberg lab at Tufts University.

New and returning faces in the department

Michelle Launi is a staff research assistant in the Hood lab, working on the ecological genetics of disease emergence. She is a recent graduate of UVA. Michelle joins **Samantha Rothberg '21**, who will be returning to campus as a post-bac research assistant in the Hood lab.



Nisan Sele '21 is continuing her work, now as a post-bac research assistant, in the Kim lab.

Manya Vivek will be starting a new position as staff research assistant in the Purdy lab. Manya comes to us from UMass-Amherst, where she was a biology major and worked in the Blanchard lab.



Welcome Michelle and Manya, and welcome back Sam and Nisan!

Mammoth milestone

Dr. Thea Kristensen celebrated her five-year employment anniversary back on June 1. Congrats Dr. K!

Alumni news

Check out [this article](#) by **Cara Giaimo '11** about social complexity in giraffes in the *New York Times*.

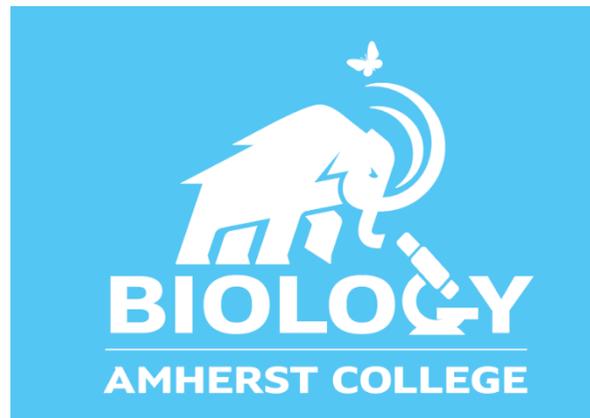
Joely DeSimone '15, a graduate student at the University of Montana, received the Frances Roberts award from the American Ornithological Society, for the best student presentation at their recent annual meeting.

Franny Diehl '15 recently defended her PhD in the Van der Heiden lab in Biology at MIT. Her dissertation title was "Metabolic regulation of mammalian cell growth and division." She will be starting a postdoc in Rachel Green's lab at Johns Hopkins in September.

Veronica Voronina '17 will be starting medical school this fall at Dartmouth University's Geisel School of Medicine.

Sam Zhang '21 is starting a new position as a clinical research coordinator at Ora, Inc. an ophthalmic drug development firm.

Braxton Schuldt '21 will be starting medical school this fall at Icahn School of Medicine at Mount Sinai.



If you have anything to share for the next BioNews, please send it to Ethan Clotfelter
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