

## Amherst BioNews Monthly Newsletter - January 2020 edition

Greetings biology folks,

After a long hiatus, here's a bonus edition of Amherst BioNews. Check out all the great things going on in our department!

Sophia Doerr '19 and Katerina Ragkousi wrote the review paper "Cell polarity oscillations in mitotic epithelia" in the journal *Current Opinion in Genetics & Development*. You can see the paper [here](#).

Erik Zhang '19 and Kevin Zhangxu '20, both from Marc Edwards' lab, [presented a poster](#) entitled "Novel role for PikF in the regulation of PI(3,4)P<sub>2</sub> dynamics" at the American Society for Cell Biology's annual conference in Washington, D.C. in December.

Julie Emerson is the lead author on a [new publication](#) from the National Center for Case Study Teaching in Science entitled "What's wrong with our son? An integrative case study in genetics, molecular and cell biology."

Greenhouse manager Jen Smith has a new gardening column in the *Daily Hampshire Gazette*. Check out the [first installment](#) here (may be behind a paywall).

Ally Kido '18 and Michael Hood recently published [the paper](#) "Mining new sources of natural history observations for disease interactions" in *American Journal of Botany*. The journal also selected [their photo](#) for the cover!

Natalie Sun '18, Sarah Goodwin, and Ethan Clotfelter (with two other co-authors) wrote the paper entitled "Does blood loss explain higher resting metabolic rates in nestling birds with hematophagous ectoparasites?" published in *Journal of Avian Biology*. You can read about their work [here](#).

Congratulations everyone!

If you have news items for the next issue of BioNews, please send them to Ethan Clotfelter ([edclotfelter@amherst.edu](mailto:edclotfelter@amherst.edu)).

## Amherst BioNews Monthly Newsletter - February 2020 edition

Greetings biology folks,

Amherst welcomes Mona Orr! [Dr. Mona Wu Orr](#) will join the Department of Biology as an Assistant Professor in the fall of 2020. Dr. Orr is currently a postdoctoral fellow at the NIH. Her research is on small proteins (100 amino acids or smaller), which are widespread in all domains of life, but remain poorly understood. She uses biochemical and genetic approaches to identify the function of some of these proteins in the membranes of the bacteria *E. coli*. In addition to continuing her research at Amherst College, Dr. Orr will teach in Biology 191, Biochemistry (Biology 330/331), and other advanced courses. When you see her this fall, please stop and say hello!

New paper from Prof. Hood's lab! Dr. Wen-juan Ma was the lead author on [a paper](#) in Genome Biology and Evolution. The authors tested the hypothesis that degenerative mutations, which also characterize sex chromosome evolution, are responsible for differential gene expression in the anther-smut fungus *Microbotryum lychnidis-dioicae*.

In January, Prof. Purdy attended the Gordon Conference on Sensory Transduction in Microorganisms in Ventura, CA, where she presented the poster "Multiple signaling pathways linking nutrient availability and metabolic gene expression in the bacterial symbiont *Vibrio fischeri*" with co-authors Gabby Ro '19, Samantha Liu '21, Eva Nelson '22, Sarah Nessen '18, Cecilia Prado, and Mark Mandel (University of Wisconsin). Monica Cesinger '15 was also there, presenting her graduate work in the Department of Microbiology at the University of Washington.

Also in January, the [Purdy lab attended](#) the Pioneer Valley Microbiology Symposium at the University of Massachusetts, Amherst. Kyra Raines '20 gave a talk on her honors thesis work, while Sarah Ibrahim '20, Sam Grondin '21, and Samantha Liu '21 all presented posters. New Biology faculty member Mona Orr (see announcement above) also joined them for the meeting!

Congratulations everyone!

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## Amherst BioNews Monthly Newsletter - April 2020 edition

Greetings biology folks,

First, to our students: we hope that you and your families are all healthy, and surviving these crazy days as best you can. We miss seeing you in class, in our research labs, and in the halls of the Science Center. If there's anything we can do to support you during this stressful time -- either personally or academically -- please let us know!

Now here's some BioNews...

The Amherst College Biology Department welcomes Sally Kim! Dr. Sally Kim will be joining the department as an Assistant Professor in the Fall of 2020. She is currently a postdoctoral research associate at Stanford University in the Huguenard lab. Her research focuses on Shank3, a candidate gene for autism spectrum disorder, mutations of which are likely also responsible for Phelan-McDermid Syndrome. Shank3 plays a role in regulating the dynamic assembly and functional changes of synapses to modify circuits and transmit and store information. She is also interested in the relationship between Shank3 and zinc localization. In addition to continuing her research at Amherst College, Dr. Kim will teach in Biology 191, Molecular Neurobiology (Biology 301), and other advanced courses. When you see her this fall, please stop and say hello!

Prof. Miller and Levin are co-authors (with others) on [the new paper](#) "Chromosome evolution in the cosmopolitan genus *Lycium* (Solanaceae)," which was recently published in *Taxon*. They used cytological analyses, coupled with character mapping and ancestral state reconstruction, to understand the dynamics of chromosome evolution in the genus, including documentation of the convergent evolution of whole genome duplication (polyploidy).

Some news from current students: Jenny Gallegos Iraheta '20 received a travel award to attend Plant Biology 2020, from the American Society of Plant Biologists. She is among the three undergraduate student winners. Derek Schneider was a semi-finalist for a highly competitive Fulbright Research Grant to the Netherlands. Most winners are graduate students, so it's very impressive that he got that far. Congrats to both of them!

Prof. Hood and Jae Hoon Cho (from the Hood lab) were co-authors on [a recent paper](#) in *Methods in Ecology and Evolution* that developed an R program to generate hexagonal fan design experiments.

The image below, which accompanied a recent paper by Wen-Juan Ma and Prof. Hood (and colleagues), was chosen as the cover photo by *Genome Biology and Evolution*.

Here's some news from recent Biology alumni:

Victoria Luizzi '17 received an Honorable Mention for the National Science Foundation Graduate Research Fellowship to support her dissertation research at the University of Arizona

Kalle Liimatta '16 will be attending graduate school at UC San Diego, joining fellow Purdy Lab alum Stephanie Flores Ramos '17 who started there in the fall in Biomedical Sciences.

Ambika Kamath '11 will be starting as an assistant professor of Ecology and Evolutionary Biology at the University of Colorado in Boulder in the fall of 2021

Louise Stevenson '09 is joining the research faculty of the Oak Ridge National Laboratory in Tennessee in the fall of 2020, where she will lead the Toxicology Lab and Mercury Biomonitoring Program.

Congratulations to everyone!

If you have news items for the next issue of BioNews -- students too! -- please send them to Ethan Clotfelter ([edclotfelter@amherst.edu](mailto:edclotfelter@amherst.edu)).

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