

# BiNews

February 2023

## Welcome Megan Wancura

**Megan Wancura** is the new Laboratory Technical Specialist for the Biology department. They are here to help manage shared equipment (organize, fix, develop protocols, train, etc.), prep for select teaching courses, work with students on troubleshooting their experiments, and generally to be a resource for the faculty and students on any and all research matters. Megan comes to us from UT Austin where they just wrapped up their Ph.D. in Analytical Chemistry. She has worked with ciliates, molecular biology, natural product isolation, and hydrogels over the years and is adept at troubleshooting and project management. Megan loves mentorship and is happy to talk with students about what comes after undergrad-- whatever their next steps may be.



## Welcome Tommy Tashjian

**Tommy Tashjian** will join the department this summer as a Lecturer in Biochemistry. Tommy is currently a postdoctoral researcher at UMass Amherst studying the bacterial DNA replication factor DnaX and its role in the DNA damage response. We look forward to working with Tommy in the fall!

## News from the Clotfelter Lab

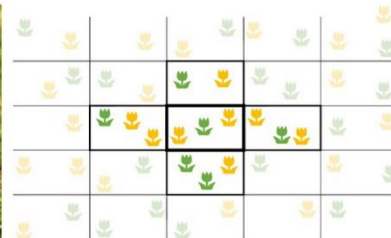


**Prof. Ethan Clotfelter** and **Sam Zhang '21**, along with their collaborator Sarah Wolf of Indiana University, are co-authors on the new paper "Experimental ectoparasite removal has a sex-specific effect on nestling telomere length" published in *Ecology and Evolution*. The paper, which is based on Zhang's senior thesis, shows how ectoparasites can accelerate shortening of the telomeres (a biomarker of ageing) in bird red blood cells (article link coming soon!).

## Two Publications from the Hood Lab

The Hood Lab had two publications recently in the journal *Ecology*, which are about how host population structure and the pathogen's mode of transmission impact the spread of infectious disease. The first paper describes a large experimental field population, and the second is based on mathematical theory. Their titles are "Host density shapes the relative contribution of vector-based and aerial transmission of a pathogenic fungus." and "Multimodal disease transmission as a limiting factor for the spatial extent of a host plant."

(<https://esajournals.onlinelibrary.wiley.com/doi/10.1002/ecy.3970> and <https://esajournals.onlinelibrary.wiley.com/doi/full/10.1002/ecy.3956>)



$$F_D = \beta_D ( p (2 \text{ 🌻}) + 0.25 (1 - p) (6 \text{ 🌻}) )$$

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## New Publication from the Miller/Levin Lab

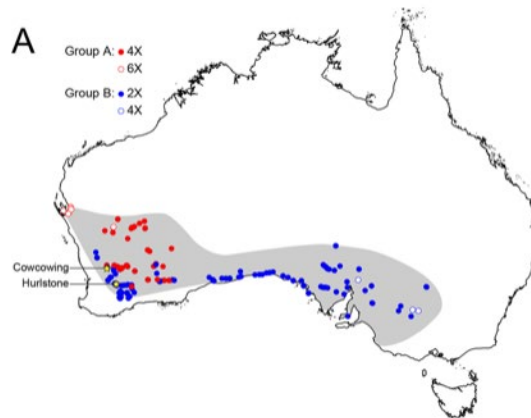
The Miller/Levin lab has new work to be published in the next issue of the *American Journal of Botany*. This project was the result of field studies in Australia and part of former honors student Derek Schneider's honors thesis in the department.

View the article here - <https://bsapubs.onlinelibrary.wiley.com/doi/10.1002/ajb2.16133>

**Reproductive isolation between diploid and tetraploid individuals in mixed-cytotype populations of *Lycium australe***

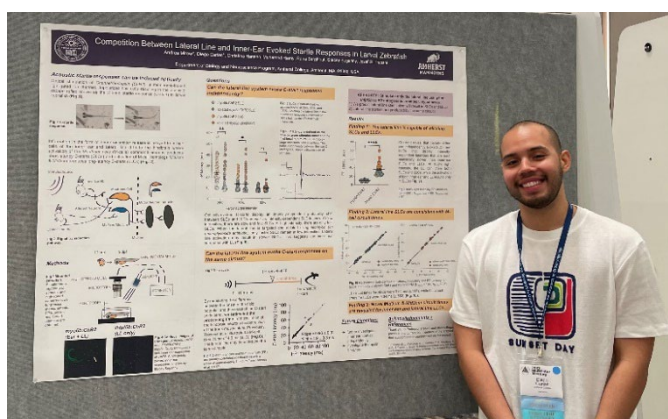
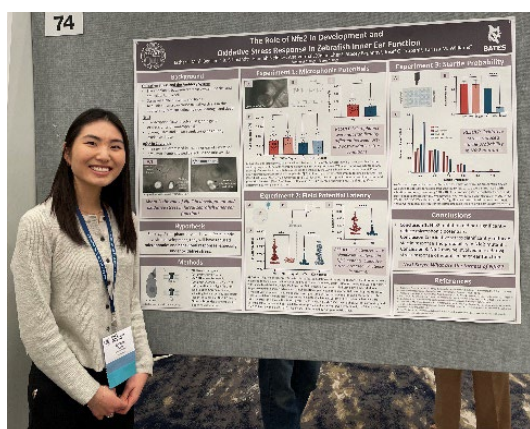
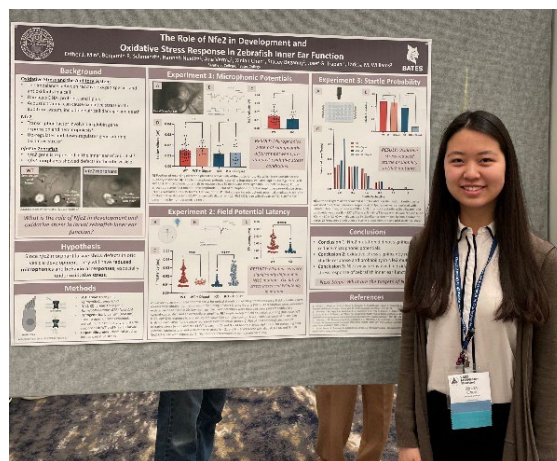
Derek J. Schneider '20, Rachel A. Levin, Jill S. Miller

In press, *American Journal of Botany*





## Trapani Lab Travels to Orlando



Three members of the Trapani Lab, **Diego Carias '23**, **Esther Min '23**, and **Annie Chen '24** traveled with **Prof Trapani** to Orlando, Florida for the annual Association for Research in Otolaryngology (ARO) Mid-winter Meeting to present their research. It was an excellent conference with lots of science posters, talks, and workshops. Congratulations on their excellent posters and presentations!



### Biology Steering Committee Hosts Tea Time

The Biology Steering Committee will be hosting gatherings on the first Monday of each month from 12:00 – 1:00pm in the Science Center Living Room. This is a great opportunity for students to bring their lunch or simply enjoy some tea and snacks all while getting to know the other students, faculty, and staff that help make Biology such an amazing department.

If you have any updates for the next issue of BioNews, please send them to [Ldavis@amherst.edu](mailto:Ldavis@amherst.edu).