

Stanford



Katelyn Hansen-McKown

COLLEGE Lecturer

Stanford Introductory Studies - Civic, Liberal, and Global Education

Bio

BIO

Katelyn is a Lecturer in the Civic, Liberal, and Global Education (COLLEGE) program. She earned a B.S. in Biology at Stanford and completed an honors thesis on her research in the Fire Lab using the nematode *C. elegans* to examine metal toxicity in the presence of the chelator, glyphosate. She went on to earn a Ph.D. in Genetics from the Stanford School of Medicine, studying stomatal development in the temperate grass model and smaller relative to wheat, *Brachypodium distachyon*, in the Bergmann Lab. Stomata are pores on the surfaces of leaves that regulate gas and water exchange. They are essential in managing the plant's nutrient circulation, temperature, and water use efficiency, and therefore have important implications for drought tolerance. Katelyn's research focused on characterizing members of a well-conserved transcription factor family involved in stomatal differentiation using genetic approaches to understand how grasses' unique stomata are formed, including the creation of cross-species rescues to test for functional conservation across monocots and dicots.

Katelyn is also passionate about science communication and teaching, and has organized science outreach events through outlets such as Stanford's Splash, Taste of Science, and Nightlife at the Cal Academy; tutored at the Hume Writing Center and for the Biology honors thesis writing class; and served as an Indigenous research mentor for first year Native students in Frosh Fellows. When she's not in the lab or classroom, Katelyn can be found gardening, fishing, playing board games, or exploring the great outdoors.

ACADEMIC APPOINTMENTS

- Lecturer, Stanford Introductory Studies - Civic, Liberal, and Global Education

Teaching

COURSES

2023-24

- Citizenship in the 21st Century: COLLEGE 102 (Win)
- Living with Viruses: COLLEGE 112 (Spr)
- Why College? Your Education and the Good Life: COLLEGE 101 (Aut)

2022-23

- Citizenship in the 21st Century: COLLEGE 102 (Win)
- Living with Viruses: COLLEGE 112 (Spr)
- Why College? Your Education and the Good Life: COLLEGE 101 (Aut)

Publications

PUBLICATIONS

- **Stomatal development in the grasses: lessons from models and crops (and crop models).** *The New phytologist*
McKown, K. H., Bergmann, D. C.
2020
- **Grass stomata.** *Current biology : CB*
McKown, K. H., Bergmann, D. C.
2018; 28 (15): R814–R816