



## ADAM SCHOEN, PhD CANDIDATE

### Living in the Future Using Wheat's Genomic Toolbox for its Improvement

Wheat is one of the most important cultivated crops, providing up to 20% of the recommended calories per person worldwide. Considering the growing human population combined with an increasingly volatile climate, novel sources of genetic fortification are a must to ensure food security. With the release of the complete wheat reference genome in 2018, a new world of genomic resources has become available to wheat researchers and has resulted in great strides towards the discovery of novel alleles that can be used for crop improvement. My research work at UMD has aided in the creation and implementation of these genomic tools for efficient gene discovery in wheat, including work that has led to the publication of the high-quality reference genome for diploid wheat species (*Triticum monococcum*). I will be providing first-hand insights into the highs and lows of the PhD journey for new graduate students just starting their academic journey

**Fall 2023 PSLA  
LECTURE  
SERIES**

**October 9, 2023**

**PLS Building RM  
2107/2109**

**Time:**

**12PM**

[UMD Zoom](#)

**Graduate student  
lunch w/ speaker**

**1PM**

**PLS 2107/2109**

Adam Schoen is a PhD student in the Plant Science and Landscape Architecture department at the University of Maryland working in Dr. Vijay Tiwari's Small Grain Breeding and Genetics Laboratory. Finding a strong interest in gene discovery through the utilization of mutant resources, he has implemented techniques used in other plant systems in wheat with the advent of new genomic resources. Having had a non-traditional journey to graduate school, he has a passion to motivate and educate students through the difficult journey of higher education. Additionally, his work on the *Triticum monococcum* reference genome was recently published in Nature.