

## ICGI Breeding & Applied Genomics Workgroup Co-Chair Candidate

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Hello, my name is Duke Pauli and I am an assistant professor at the University of Arizona. The long-term goals of my research program are to understand and utilize the genetic and functional phenotypic variation present in plant populations to responsibly address the challenges facing a growing global population including food and fiber security. The research program is composed of three separate but synergistic areas that combine to elucidate the genetic mechanisms responsible for key agronomic, quality, and stress-adaptive traits that are critical to crop production in areas prone to intense abiotic stress pressures. The first area is centered on identifying and characterizing existing genomic variation in plant populations to better understand the dynamics of phenotypic diversity. The second area concentrates on using emerging high-throughput phenotyping (HTP) technologies to capture and quantify complex phenotypes that are responsive to environmental fluctuations throughout the plant's life cycle in order to understand temporal trait expression patterns. The final area is focused on discovering allelic variants and causative genes responsible for observed phenotypic variation through the use of genetic mapping populations and statistical methods. Prior to my position at UA, I was a Cotton Incorporated postdoctoral fellow at Cornell University where I worked with Dr. Michael Gore on the development and utilization of field-based, high-throughput phenotyping. Although relatively new to the cotton community, I have been able to meet a large number of its members and am always surprised by how welcoming and inviting everyone has been. Because of the great community that we have within cotton, it would be an honor and a privilege to serve on the Breeding and Applied Genomics committee. I hope you will consider my candidacy.