

## **EDUCATION**

June 2021      **Ph. D. Biology:** Huffaker lab, University of California, San Diego  
Sept. 2014      **B. S. Biology,** The Open University, Israel

## **PROFESSIONAL EXPERIENCE**

2021 – present    **Post-doctoral Researcher:** Huffaker lab, University of California, San Diego.  
2015 - 2021      **Ph. D. Graduate Student:** Huffaker lab, University of California, San Diego.  
2014 - 2015      **Research Assistant:** Huffaker lab, University of California, San Diego.  
2014 - 2015      **Research Assistant:** Schroeder lab, University of California, San Diego.

## **KEY BIOINFORMATICS PROJECTS**

MutRank          Developed an R Shiny app for coexpression analysis  
Project code: <https://github.com/eporetsky/MutRank>  
syntenyZ          Developed an R Shiny app for comparative genomics analysis  
Project code: <https://github.com/eporetsky/syntenyZ>  
blasTree          Developed an R Shiny app for automating phylogeny tree construction  
Project code: <https://github.com/eporetsky/blasTree>  
SQNce            Developing a SQLite database with python parsers for biological data  
Project code: <https://github.com/eporetsky/SQNce>  
PlantApp          Developing a Python Dash website, with SQNce, for comparative genomics  
Website address: <https://www.plantapp.org>

## **PUBLICATIONS**

January 2022    Poosapati, S., Poretsky, E., Dressano, K., Ruiz, M., Vazquez, A., Sandoval, E., Estrada-Cardenas, A., Duggal, S., Lim, J.-H., Morris, G., Szczepaniec, A., Walse, S.S., Ni, X., Schmelz, E.A. and Huffaker, A. (2022) A sorghum genome-wide association study (GWAS) identifies a WRKY transcription factor as a candidate gene underlying sugarcane aphid (*Melanaphis sacchari*) resistance. *Planta*, 255, 37.  
December 2021 Poretsky, E., Ruiz, M., Ahmadian, N., Steinbrenner, A.D., Dressano, K., Schmelz, E.A. and Huffaker, A. (2021) Comparative analyses of responses to exogenous and endogenous antiherbivore elicitors enable a forward genetics approach to identify maize gene candidates mediating sensitivity to herbivore-associated molecular patterns. *Plant J*, tpj.15510.  
December 2020 Poretsky, E., Dressano, K., Weckwerth, P., Ruiz, M., Char, S. N., Shi, D., Abagyan, R., Yang, B., & Huffaker, A. (2020). Differential activities of maize plant elicitor peptides as mediators of immune signaling and herbivore resistance. *The Plant Journal*, tpj.15022.

- November 2020 Poretsky, E., & Huffaker, A. (2020). MutRank: An R shiny web-application for exploratory targeted mutual rank-based coexpression analyses integrated with user-provided supporting information. *PeerJ*, 8, e10264.
- November 2020 Ding, Y., Weckwerth, P. R., Poretsky, E., Murphy, K. M., Sims, J., Saldivar, E., Christensen, S. A., Char, S. N., Yang, B., Tong, A., Shen, Z., Kremling, K. A., Buckler, E. S., Kono, T., Nelson, D. R., Bohlmann, J., Bakker, M. G., Vaughan, M. M., Khalil, A. S., ... Huffaker, A. (2020). Genetic elucidation of interconnected antibiotic pathways mediating maize innate immunity. *Nature Plants*, 6(11), 1375–1388.
- August 2020 Dressano, K., Weckwerth, P. R., Poretsky, E., Takahashi, Y., Villarreal, C., Shen, Z., Schroeder, J. I., Briggs, S. P., & Huffaker, A. (2020). Dynamic regulation of Pep-induced immunity through post-translational control of defence transcript splicing. *Nature Plants*, 6(8), 1008–1019.
- October 2019 Ding, Y., Murphy, K. M., Poretsky, E., Mafu, S., Yang, B., Char, S. N., Christensen, S. A., Saldivar, E., Wu, M., Wang, Q., Ji, L., Schmitz, R. J., Kremling, K. A., Buckler, E. S., Shen, Z., Briggs, S. P., Bohlmann, J., Sher, A., Castro-Falcon, G., ... Schmelz, E. A. (2019). Multiple genes recruited from hormone pathways partition maize diterpenoid defences. *Nature Plants*, 5(10), 1043–1056. <https://doi.org/10.1038/s41477-019-0509-6>.
- April 2019 Fong, S. H., Carlin, D. E., Ozturk, K., Ideker, T., Arang, N., Bao, B., Bennett, H., Cai, X., Chau, K., Fixsen, B., Gonzalez-Avalos, E., Hakansson, A., Hu, V., Kaul, A., Kufareva, I., Nguyen, D., Poretsky, E., Qin, Y., Rideout, D., ... Zhou, J. (2019). Strategies for Network GWAS Evaluated Using Classroom Crowd Science. *Cell Systems*, 8(4), 275–280.
- July 2015 Brandt, B., Munemasa, S., Wang, C., Nguyen, D., Yong, T., Yang, P. G., Poretsky, E., Belknap, T. F., Waadt, R., Alemán, F., & Schroeder, J. I. (2015). Calcium specificity signaling mechanisms in abscisic acid signal transduction in *Arabidopsis* guard cells. *ELife*, 4, e03599.

### **INVITED PRESENTATIONS**

- March 2021 “Uncovering the Genetic Basis of Maize Sensitivity to Herbivore-Associated Fatty-acid Amino-acid Conjugates”, Maize Genetics Conference, online.
- April 2019 “Uncovering the Genetic Basis of Maize Sensitivity to Herbivore-Associated Fatty-acid Amino-acid Conjugates.” Plant Talks Seminar, UC San Diego, La Jolla, CA.
- June 2018 “Within spitting distance: Zeroing in on how plants recognize herbivore attack.” Annual CMG Research Colloquium, UC San Diego, La Jolla, CA.

### **POSTER PRESENTATIONS**

- December 2020 Poretsky E., Schmelz E, Huffaker A. “syntenyZ: BLAST-based, annotation-independent, targeted comparative genomic analyses of syntenic regions in the maize NAM parents” Plant Genomes, Systems Biology and Engineering.
- June 2020 Poretsky E., Huffaker A. “mutRank: An R Shiny web-application for Mutual Rank-based coexpression analysis combined with tools for gene candidate prioritization” Maize Genetics Conference.
- March 2019 Poretsky E., Shen Z, Dressano K, Sandoval-Bautista E, Cardenas J, Briggs SP, Huffaker A. “Quantitative phosphoproteomics reveals novel regulators of maize defenses against biotic stress”. Maize Genetics Conference.

- March 2017      Poretsky E, Weckwerth P, Schmelz E, Huffaker A. "Induced foliar volatile production in response to the herbivore elicitor N-linolenoyl L-glutamine maps to a single QTL in maize". Maize Genetics Conference.
- February 2016      Poretsky E, Weckwerth P, Schmelz E, Huffaker A. "Induced foliar volatile production in response to the herbivore elicitor N-linolenoyl L-glutamine maps to a single QTL in maize". Plant Volatiles Gordon Research Conference.

### **INSTRUCTION**

- Winter 2019      **Instructional Assistant:** BILD 1 - The Cell, University of California, San Diego
- Spring 2018      **Instructional Assistant:** BILD 2 - Multicellular Life, University of California, San Diego
- Spring 2017      **Instructional Assistant:** BIMM 101 - Recombinant DNA Techniques, University of California, San Diego

### **FUNDS AND AWARDS**

- 2016-2018      CMG Training Grant
- August 2016      Helmsley Scholarship for the Cold Spring Harbor Laboratory course: Workshop on Cereals Genomics.
- 2015-2016      GAANN Fellowship