

Jaclyn M. Noshay

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EDUCATION

PhD student in Plant Biological Sciences – University of Minnesota

Degree expected: May 2021

- **Thesis:** Relative Transposable Element Contribution to Differential Methylation Prediction
- **Advisor:** Nathan Springer

Bachelor of Science in Genetics, Cell Biology and Development – University of Minnesota

College of Biological Sciences - May 2016

PROFESSIONAL POSITIONS

Graduate Research Assistant, Springer Lab – University of Minnesota

2016 – Present

- *Field work and computational bioinformatics*
- *Analysis of epigenetic regulation in maize (histone variation and DNA methylation)*
- *Transposable element and DNA methylation association*

Undergraduate Research Assistant, Springer Lab – University of Minnesota

2013 – 2016

- *Lab bench, field, computational analysis and interpretation*
- *Characterization of mutant maize phenotypes*
- *Fine-mapping and RNAseq analysis*

Teaching Abroad, International Volunteer HQ – Cusco, Peru

2015 – 2015

- *Taught basic English and enhanced social and educational skills in a pre-school classroom*
- *Facilitated introduction of cultural variation within a classroom setting*

Student Athlete Tutor, Bierman Athletics – University of Minnesota

2014 – 2016

- *One-on-one or small group tutoring of student athletes in chemistry and biology*
- *Mentoring and developing methods for success in coursework and goal-oriented achievement*

PUBLICATIONS

Mandy Waters, Irina Makarevitch, **Jaclyn Noshay**, Liana Burghardt, Candice Hirsch, Cory Hirsch, Nathan Springer. (2016). Natural variation for gene expression responses to abiotic stress in maize. *The Plant Journal*. 89. 10.1111/tpj.13414.

N.M. Springer, S.N. Anderson, C.M. Andorf, K. Ahern, F. Bai, O. Barad, B.W. Barbazuk, H.W. Bass, K. Baruch, G. Ben-Zvi, E.S. Buckler, R. Bukowski, M. S. Campbell, E.K.S. Cannon, P.l Chomet, K.R. Dawe, R. Davenport, H.K. Dooner, L.H. Du, C. Du, K.A. Easterling, C. Gault, J.C. Guan, G. Jander, C.T. Hunter, Y. Jiao, K.E. Koch, G. Kol, T. Kudo, Q. Li, F. Lu, D. Mayfield-Jones, W. Mei, D.R. McCarty, **J.M. Noshay**, J.L. Portwood II, G. Ronen, M.A. Settles, D. Shem-Tov, J. Shi, I. Soifer, J.C. Stein, M. Suzuki, D. L. Vera, E. Vollbrecht, J.T. Vrebalov, D. Ware, X. Wei, K. Wimalanathan, M.R. Woodhouse, W. Xiong, and T.P. Brutnell. (2018). The W22 genome: a foundation for maize functional genomics and transposon biology. *Nature Genetics*. 10.1038/s41588-018-0158-0.

Jaclyn Noshay, Peter Crisp, Nathan Springer (2018). The Maize Methylome. The Zea Mays Genome.

CONFERENCE ABSTRACTS

Nathan Springer, Sarah Anderson, Jaclyn Noshay, Michelle Stitzer. (2018). Transposable Element Contributions to Dynamics of the Maize Genome and Transcriptome. Plant and Animal Genome Conference XXVI. San Diego, CA.

Jaclyn Noshay, Sarah Anderson, Peng Zhou, Michelle Stitzer, Lexiang Ji, Robert Schmitz, Nathan Springer. (2018). Documenting the role of transposable elements in DNA methylation variation in maize. 60th Annual Maize Genetics Conference. St. Louis, MO. Presenting author.

Alex Brohammer, Sarah Anderson, Jaclyn Noshay, Peng Zhou, Michelle Stitzer, Jeffrey Ross-Ibarra, Nathan Springer, Candice Hirsch. (2018). Characterization of polymorphic transposable element content between maize inbred lines. 60th Annual Maize Genetics Conference. St. Louis, MO.

Jaclyn Noshay, Zefu Lu, Candice Hirsch, Robert Schmitz, Nathan Springer. (2017). Application of ATAC-seq to monitor variation in open chromatin among maize tissues and genotypes. 59th Annual Maize Genetics Conference. St. Louis, MO. Presenting author.

Steven Briggs, Ryan Sartor, Jaclyn Noshay, Nathan Springer. (2017). W592 DNA Methylation Can be Used to Predict Whether Genes Express Transcripts, Proteins, or Both. Plant and Animal Genome Conference. San Diego, CA.

Jaclyn Noshay, Amanda Waters, Cory Hirsch, Nathan Springer. (2016). Phylogenetic and transcriptome analysis of CBF and ICE gene families in maize. 58th Annual Maize Genetics Conference. Jackson, FL. Presenting author

Jaclyn Noshay, Amanda Waters, Peter Hermanson, Irina Makarevitch, Nathan Springer. (2015). Characterization of QTL Influencing Seedling Cold Tolerance. 57th Annual Maize Genetics Conference. St. Charles, IL. Presenting author.

SERVICE ACTIVITIES

Graduate Outreach Committee – Plant Biological Sciences, University of Minnesota

2017 – 2018

- Organized outreach opportunities for graduate students around the Twin Cities community

PBS Seminar Committee – University of Minnesota

2017 – present

- Assist in invitation and organization of all departmental seminar speakers

Girls in Bioinformatics – Minneapolis, MN

2017

- Teach introduction to bioinformatics and Unix computation for underprivileged high school girls

Science Fair Mentor, Murray Middle School – Minneapolis, MN

2016 – 2017

- Presented to 6th and 7th grade classrooms regarding how to approach a science fair project
- Mentored students on the scientific process for their science fair project

Market Science – Minneapolis/St. Paul, MN

2016 – 2018

- Bringing science to Farmer's Markets around the twin cities area

- *Outreach to provide and encourage science knowledge in the community*
- *Graduate Student Working Board Member*

AWARDS

Plant and Microbial Biology Travel Award (2018)

CBS Excellence Fellowship (2016-2017)

MPGI graduate student recruitment award (2016)

MPGI travel award (2017)

Bentson Foundation Scholarship (2012-2016)

John T Stout Memorial Scholarship (2014-2015)

Deans List Fall 2012, Spring 2013, Fall 2013, Spring 2015