BIOGRAPHICAL SKETCH

NAME:	POSITION TITLE:
Kelly Vining	**Assistant Professor**

EDUCATION

INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
University of New Hampshire	Ph.D.	2007	Genetics
University of New Hampshire	M.S.	1999	Plant Biology
University of Southern Maine	B.A.	1996	Biology/Biochemistry

EMPLOYMENT HISTORY

Sept 2015-present	**Assistant Professor**, Department of Horticulture, Oregon State University.
2014 – 2015	**Bioinformatic analyst/trainer**, Center for Genome Research and Biocomputing, Oregon State University.
2009 – 2014	**Faculty Research Associate**, Department of Forest Ecosystems and Society, Oregon State University.
2013 – 2013	**Research Support - Bioinformatics**, USDA-ARS, Corvallis, OR.
2007 – 2008	**Postdoctoral Research Associate**, University of New Hampshire, Durham, NH.
2005-2006	**DNA Sequencing Facility Technician**, University of New Hampshire, Durham, NH.
2002-2007	**Research/Teaching Assistant**, University of New Hampshire, Durham, NH.

PROFESSIONAL ACTIVITIES

Research Focus: Use of genomics and bioinformatic tools to enable marker-assisted selection in specialty crops. Emphasis on disease and pest resistance.

Teaching Focus: Molecular marker discovery and application, genome structure and function (graduate level).

SYNERGISTIC ACTIVITIES

Varietal Release Committee: Member since September 2015. This committee evaluates and approves release of new varieties from OSU breeding programs.

Department of Horticulture Safety Action Team: Committee chair since 2015. This committee works with OSU Environmental Health and Safety to ensure research lab compliance with EPA regulations.

Professional Affiliations: American Phytopathological Society since 2006, American Society of Plant Biologists since 2009, and Potato Association of America since 2015.

Grant Panelist: USDA-Specialty Crops Research Initiative, Citrus Disease Research and

Extension Program (2018); USDA-Plant Breeding for Agricultural Production, and Conventional Plant Breeding for Cultivar Development (2021).

Journal Reviews: 25 reviews completed for 13 international journals.

Service to the Department: (2015 - Present), Chairperson, Horticulture Safety Action Team (HSAT).

Service to the College: (2015-present) Committee Member, Variety Release Committee. (2021) Committee Member, OSU Interdisciplinary Graduate Program Development. (2020) Committee Member, Strategic Planning Committee, OSU Center for Genome Research and Biocomputing. (2019) Committee Member, Search Committee, Botany and Plant Pathology Dept., Assistant Professor. (2019), Faculty mentor: URSA Engage Program.Committee Member, Search Committee, Center for Genome Research and Biocomputing Program Manager.

Service to the University: (2020-present) Plant Breeding and Genetics Consortium Chair, Oregon State University Global Hemp Innovation Center, Plant Breeding and Genomics Committee. (2020) Committee Member, Oregon State University Center for Genome Research and Biocomputing Strategic Planning Committee. (2020) Committee Member, Oregon State University Research Computing Task Force. (2019), Committee Member, Revisioning Molecular and Cellular Biology Program Committee. (April 10, 2018), Presentation to Achievement Rewards for College Scientists (ARCS) Foundation.

COMPETITIVE GRANTS RECEIVED

Vining, KJ (PI). Hemp Genome Resource Development. 2019-2022, $1,000,000.
Vining, KJ (PI). Development of Genome Resources for Hazelnut. 2019-2020, $100,000.
Vining, KJ. (co-PI), Varietal Improvement Project, Mint Industry Research Council, 2021 - 2022, $ 50,000.
Vining, KJ. (PI), Mint Genome Resources Project, Oregon Mint Commission, 2019 - 2020, $ 25,000.
Vining, KJ. (PI), Development of genomic resources and enhancement of breeding efficiency for important potato pests, Tri-State Potato Commission, 2020 - 2021, $ 10,000.

PUBLICATIONS

Refereed publications in the last four years

- Brandt, K.M., Chen, X., Tabima, J.F., See, D.R., Vining, K.J., Zemetra, R.S. QTL Analysis of adult plant resistance to stripe rust in a winter wheat recombinant inbred population. Plants 2021, 10, 572.
- Vining, K.J., Hummer, K.E., Bassil, N.V., Lange, B.M., Khoury, C., Carver, D. 2020. Crop wild relatives as germplasm resource for cultivar improvement in mint (Mentha L.). Frontiers in Plant Science. Invited review.11, 1217. https://doi.org/10.3389/fpls.2020.01217
- Vining, K.J., Pandelova, I., Hummer, K. et al. Genetic diversity survey of Mentha aquatica L. and Mentha suaveolens Ehrh., mint crop ancestors. Genet Resour Crop Evol 66, 825–845 (2019). https://doi.org/10.1007/s10722-019-00750-4

- Chen, H., Lattier, J.D., Vining, K., Contreras, R.N. 2020. Two SNP markers identified using GBS are associated with remontancy in a segregating F1 population of Syringa meyeri 'Palibin' x S. pubescens 'Penda' Bloomerang®. J. Amer. Soc. Hort. Sci. 145(1):104-109. https://doi.org/10.21273/JASHS04847-20
- Vining K, Pandelova I, Hummer K, Bassil N, Contreras R, Neill K, Chen H, Parrish A, Lange M. 2019. Genetic diversity survey of Mentha aquatica L. and Mentha suaveolens Ehrh., mint crop ancestors. Genetic Resources and Crop Evolution 66:825-845. https://doi.org/10.1007/s10722-019-00750-4
- Bali, S., Vining, K., Gleason, C., Majtahedi, H., Brown, C.R., Sathuvalli, V. 2019. Transcriptome profiling of resistance response to Meloidogyne chitwoodi introgressed from wild species Solanum bulbocastanum into cultivated potato. BMC genomics 20:907. https://doi.org/10.1186/s12864-019-6257-1
- Hernandez, F.J., Steffenson, B.J., Filichkin, T.P., Fisk, S.P., Helgerson, L.J., Meints, B., Vining, K.J., Marshall, D., del Blanco, I., Chen, X., Hayes, P. 2019. Introgression of rpg4/Rpg5 into barley germplasm provides insights into the genetics of resistance to Puccinia graminis f. sp. tritici race TTKSK and resources for developing resistant cultivars. Phytopathology https://doi.org/10.1094/PHYTO-09-18-0350-R.
- Dung, J.K.S., Knaus, B.J., Fellows, H.L.S., Grünwald, N.J., Vining, K.J. 2019. Genetic Diversity of Verticillium dahliae Isolates from Mint Detected with Genotyping by Sequencing. Phytopathology https://doi.org/10.1094/PHYTO-12-18-0475-R.
- Vining, K. J., Pandelova, I., Hummer, K., Bassil, N., Contreras, R., Neill, K., Chen, H., Parrish, A. N., & Lange, B. M. 2019. Genetic diversity survey of Mentha aquatica L. and Mentha suaveolens Ehrh., mint crop ancestors. Genetic Resources and Crop Evolution, 66(4), 825–845. https://doi.org/10.1007/s10722-019-00750-4
- Naithani, S.N., Gupta, P., Preece, J., Garg, P., Fraser, V., Padgitt-Cobb, L.K., Martin, M., Vining, K, Jaiswal., P. 2019. Involving community in genes and pathway curation. Database, Volume 2019, 1 January 2019, bay146. https://doi.org/10.1093/database/bay146
- Wallace, L., Arkwazee, H., Vining, K., & Myers, J. 2018. Genetic Diversity within Snap Beans and Their Relation to Dry Beans. Genes, 9(12), 587. https://doi.org/10.3390/genes9120587
- Bali, S., Patel, G., Novy, R., Vining, K., Thompson, A., Brown, C., Holm, D., Porter, G., Endelman, J., Sathuvalli, V. 2018. Evaluation of genetic diversity among Russet potato clones and varieties from breeding programs across the United States. PLoS ONE 13(8): e0201415. https://doi.org/10.1371/journal.pone.0201415
- VanBuren, R., Wai, C. M., Colle, M., Wang, J., Sullivan, S., Bushakra, J. M., Liachko, I., Vining, K. J., Dossett, M., Finn, C. E., Jibran, R., Chagné, D., Childs, K., Edger, P. P., Mockler, T. C., & Bassil, N. V. 2018. A near complete, chromosome-scale assembly of the black raspberry (Rubus occidentalis) genome. GigaScience, 7(8). https://doi.org/10.1093/gigascience/giy094
- Bushakra, J. M., Dossett, M., Carter, K. A., Vining, K. J., Lee, J. C., Bryant, D. W., VanBuren, R., Lee, J., Mockler, T. C., Finn, C. E., & Bassil, N. V. 2018. Characterization of aphid resistance loci in black raspberry (Rubus occidentalis L.). Molecular Breeding, 38(7), 83. https://doi.org/10.1007/s11032-018-0839-5
- Martin, R. C., Vining, K., & Dombrowski, J. E. 2018. Genome-wide (ChIP-seq) identification of target genes regulated by BdbZIP10 during paraquat-induced oxidative stress. BMC Plant Biology, 18(1), 58. https://doi.org/10.1186/s12870-018-1275-8