IDENTIFYING INFORMATION:

NAME: Butler, Nathaniel Martin

ORCID iD: https://orcid.org/0000-0002-9235-7626

POSITION TITLE: Director of the PTCRF (Plant Transformation Core Research Facility) and Assistant Professor of Agriculture and Horticulture

PRIMARY ORGANIZATION AND LOCATION: University of Nebraska, Lincoln, Nebraska, United States

Professional Preparation:

ORGANIZATION AND LOCATION	DEGREE (if applicable)	RECEIPT DATE	FIELD OF STUDY
University of Minnesota, Twin Cities, Minnesota, United States	Other training	01/2023 - 05/2023	Supervisory Development Course
University of Wisconsin, Madison, Wisconsin, United States	Postdoctoral Fellow	09/2015 - 05/2017	Delta Research, Teaching & Learning program
Michigan State University, East Lansing, Michigan, United States	PHD	12/2015	Plant Breeding, Genetics & Biotechnology
Iowa State University, Ames, Iowa, United States	MS	05/2012	Plant Biology
University of Wisconsin, Eau Claire, Wisconsin, United States	BS	12/2008	Biochemistry/Molecular Biology

Appointments and Positions

2025 - present	Director of the PTCRF (Plant Transformation Core Research Facility) and Assistant Professor of Agriculture and Horticulture, University of Nebraska, Lincoln, Nebraska, United States
2023 - 2024	Researcher 6, Center for Precision Plant Genomics, University of Minnesota, St. Paul, Minnesota, United States
2020 - 2023	Research Scientist, Cell Biology and Technology Development, Calyxt Inc., Roseville, Minnesota, United States
2018 - 2020	Research Geneticist, USDA-ARS Vegetable Crops Research Unit, Madison, Wisconsin, United States
2015 - 2018	NSF Post-Doctoral Fellowship in Biology, University of Wisconsin, Madison, Wisconsin, United States

Products

Products Most Closely Related to the Proposed Project

1. **Butler N, Carlson A, Starker C, Voytas D. Viral-mediated delivery of morphogenic regulators enables leaf transformation in *Sorghum bicolor* (L.). [Preprint]. 2025 February 16. DOI: 10.1101/2025.02.15.637725**
2. **Zhu X, Chen A, Butler N, Zeng Z, Xin H, Wang L, Lv Z, Eshel D, Douches D, Jiang J. Molecular dissection of an intronic enhancer governing cold-induced expression of the vacuolar invertase gene in potato. The Plant Cell. 2024 May; 36(5):1985-1999. Available from:**

https://academic.oup.com/plcell/article/36/5/1985/7609602 DOI: 10.1093/plcell/koae050

3. **Butler N, Jiang J, Stupar R. Crop Improvement Using Genome Editing. 1 ed. In: Goldman I, editor. Plant Breeding Reviews [Internet] Wiley; 2018-02-14. 55-101p. Available from: https://onlinelibrary.wiley.com/doi/10.1002/9781119414735.ch2 DOI: 10.1002/9781119414735.ch2**
4. **Butler N, Jansky S, Jiang J. First-generation genome editing in potato using hairy root transformation. Plant Biotechnology Journal. 2020 April 16; 18(11):2201-2209. Available from: https://onlinelibrary.wiley.com/doi/10.1111/pbi.13376 DOI: 10.1111/pbi.13376**
5. **Xin H, Strickland LW, Hamilton JP, Trusky JK, Fang C, Butler NM, Douches DS, Buell CR, Jiang J. Jan and mini-Jan, a model system for potato functional genomics. Plant Biotechnol J. 2025 Jan 23; PubMed PMID: 39846980.**

Other Significant Products, Whether or Not Related to the Proposed Project

1. **Butler N, Baltes N, Voytas D, Douches D. Geminivirus-Mediated Genome Editing in Potato (Solanum tuberosum L.) Using Sequence-Specific Nucleases. Frontiers in Plant Science. 2016 July 21; 7:-. Available from: http://journal.frontiersin.org/Article/10.3389/fpls.2016.01045/abstract DOI: 10.3389/fpls.2016.01045**
2. **Butler N, Douches D. Sequence-Specific Nucleases for Genetic Improvement of Potato. American Journal of Potato Research. 2016; 93(4):303-320. Available from: http://link.springer.com/10.1007/s12230-016-9513-9 DOI: 10.1007/s12230-016-9513-9**
3. **Butler N, Atkins P, Voytas D, Douches D. Generation and Inheritance of Targeted Mutations in Potato (Solanum tuberosum L.) Using the CRISPR/Cas System. PLOS ONE. 2015 December 14; 10(12):e0144591-. Available from: https://dx.plos.org/10.1371/journal.pone.0144591 DOI: 10.1371/journal.pone.0144591**
4. **Halterman D, Guenthner J, Collinge S, Butler N, Douches D. Biotech Potatoes in the 21st Century: 20 Years Since the First Biotech Potato. American Journal of Potato Research. 2015 November 19; 93(1):1-20. Available from: http://link.springer.com/10.1007/s12230-015-9485-1 DOI: 10.1007/s12230-015-9485-1**
5. **Lin T, Lashbrook C, Cho S, Butler N, Sharma P, Muppirala U, Severin A, Hannapel D. Transcriptional analysis of phloem-associated cells of potato. BMC Genomics. 2015; 16(1):-. Available from: https://bmcgenomics.biomedcentral.com/articles/10.1186/s12864-015-1844-2 DOI: 10.1186/s12864-015-1844-2**

Certification:

I certify that the information provided is current, accurate, and complete. This includes but is not limited to current, pending, and other support (both foreign and domestic) as defined in 42 U.S.C. § 6605.

I also certify that, at the time of submission, I am not a party to a malign foreign talent recruitment program.

Misrepresentations and/or omissions may be subject to prosecution and liability pursuant to, but not

limited to, 18 U.S.C. §§ 287, 1001, 1031 and 31 U.S.C. §§ 3729-3733 and 3802.

Certified by Butler, Nathaniel Martin in SciENcv on 2025-02-26 15:44:03