

# Jessica L. Cooperstone, Ph.D.

Associate Professor  
The Ohio State University  
Horticulture & Crop Science, Food Science & Technology  
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## RESEARCH FOCUS:

- Working at the intersection of plant science and human nutrition to understand the chemical basis of health benefits derived from fruit and vegetables. Analytical biochemist with specialization in both quantitative small molecule analysis and untargeted mass spectrometry-based metabolomics, focusing on phytochemicals and their metabolites in plants, foods, and mammalian systems. Integrating multi-omics data using bioinformatic approaches.

## FACULTY ROLES:

- **Associate Professor**, The Ohio State University, Horticulture and Crop Sciences (70%) and Food Science and Technology (30%), Columbus, OH. May 2023 – present
- **Assistant Professor**, The Ohio State University, Horticulture and Crop Sciences (70%) and Food Science and Technology (30%), Columbus, OH. Aug 2017 – May 2023
  - Functional Food Biochemist hired under the Discovery Themes [Foods for Health](#) initiative.
  - Graduate faculty status, Translational Plant Sciences Graduate Program
  - [Member](#), The Ohio State University Comprehensive Cancer Center

## EDUCATION:

- **The Ohio State University**, Food Science & Technology, Columbus, OH. Sept 2009 – Dec 2014  
**Ph.D.**, Carl E. Haas Endowed Chair Graduate Research Associate, Sept 2009 – April 2012  
[Lisa and Dan Wampler Endowed Fellowship for Food and Health Research](#), May 2012 – Dec 2014
  - Dissertation title: [Tangerine tomato carotenoids: processing, storage, bioavailability and biological implications of consumption](#). Investigating factors that lead to the apparent increased bioavailability of lycopene in humans from *tangerine*-type tomatoes. These factors include carotenoid/isomer profiles, chromoplast structure and their resulting *in vivo* effects in a model of cancer prevention.
  - Under the direction of Steven Schwartz, Ph.D., Carl E. Haas Endowed Chair and Professor (retired)
- **Cornell University**, Food Science, Ithaca, NY. Sept 2005 - May 2009  
**B.S.**, Magna Cum Laude. Research adviser: [Dennis Miller, Ph.D.](#)

## PROFESSIONAL EXPERIENCE:

- **Research Scientist** (Principal Investigator Status), The Ohio State University, Food Science & Technology, Oct 2016 – Aug 2017.
- **Postdoctoral Researcher** (Principal Investigator Status), The Ohio State University, Food Science & Technology, Jan 2015 – Sept 2016. Supervisor: Steven Schwartz, Ph.D.
  - Using both metabolite analysis and untargeted mass spectrometry based metabolomics as a part of an interdisciplinary team in the area of personalized food and nutritional metabolic profiling to improve health.

## PEER REVIEWED PUBLICATIONS (listed in reverse chronological order, <sup>9</sup>Cooperstone lab graduate student, \*co-first author, corresponding author underlined):

1. Roman-Reyna V, Heiden N, Butchacas J, Toth H, **Cooperstone JL**, [Jacobs J](#). The timing of bacterial mesophyll infection shapes the leaf chemical landscape. *Accepted, Microbiology Spectrum*, February 14, 2024.
2. Pastuña JV, Quiroz-Moreno CD<sup>9</sup>, Medina EJ, **Cooperstone JL**, Radice M, Peñuela-Mora MC, Almeida JR, [Salazar Mogollon NG](#). Metabolite fingerprinting of *Urospatha sagittifolia* (Araceae)

- tubers at different growth stages by multi-platform metabolomics and molecular networking. *Microchemical J*, 2024;199:110058. <https://doi.org/10.1016/j.microc.2024.110058>
3. Dzakovich MP<sup>9</sup>, Goggans ML<sup>9</sup>, Thomas-Ahner JM, Moran NE, Clinton SK, Francis DM, **Cooperstone JL**. Transcriptomics and metabolomics reveal tomato consumption alters hepatic xenobiotic metabolism and induces steroidal alkaloid metabolite accumulation in mice. *Mol Nutr Food Res*, 2024. [10.1002/mnfr.202300239](https://doi.org/10.1002/mnfr.202300239)
    - Also published as a pre-print on bioRxiv: <https://www.biorxiv.org/content/10.1101/2023.04.18.536606v1>
  4. Emanuel I, **Cooperstone JL**, Hand-Peduto F. UHPLC-MS/MS identification of metabolites in winterberry fruit putatively associated with natural disease resistance to *Diaporthe illicicola*. *Phytopathology*, 2023, Epub ahead of print. <https://doi.org/10.1094/PHYTO-04-23-0130-R>
  5. Emanuel I, **Cooperstone JL**, Hand-Peduto F. Susceptibility screening of winterberry (*Ilex verticillata*) cultivars against latent fruit rot, and identification of metabolites correlated with rot-resistant phenotypes. *J Environ Hort*, 2023;41:121-132. <https://doi.org/10.24266/0738-2898-41.3.121>
  6. Goggans ML<sup>9</sup>, Bilbrey EA<sup>9</sup>, Quiroz-Moreno CD<sup>9</sup>, Francis DM, Jacobi SK, Kovac J, **Cooperstone JL**. Short term tomato consumption alters the pig gut microbiome towards a more favorable profile. *Microbiology Spectrum*, 2022;10:e02506-22. <https://doi.org/10.1128/spectrum.02506-22>
  7. Thomas M, Puglisi M, Malysheva O, Caudill M, Sholola MJ<sup>9</sup>, **Cooperstone JL**, Fernandez ML. Eggs improve plasma biomarkers in patients with metabolic syndrome following a plant-based diet. *Nutrients*, 2022;5:2138. <https://doi.org/10.3390/nu14102138>
  8. Fenstermaker S, Sim L, **Cooperstone JL**, Francis DM. *Solanum galapagense*-derived purple tomato fruit color is conferred by novel alleles of the *Anthocyanin fruit* and *atrorivoliacium* loci. *Plant Direct*, 2022;6(4):e394. <https://doi.org/10.1002/pld3.394>
    - Also published as a preprint on bioRxiv <https://doi.org/10.1101/2021.11.09.467926>
  9. Thomas MS, DiBella M, Blesso CN, Malisheva O, Caudill M, Sholola MJ<sup>9</sup>, **Cooperstone JL**, Fernandez ML. Comparison between egg intake vs choline supplementation on gut microbiota and plasma carotenoids in subjects with metabolic syndrome. *Nutrients*, 2022;14(6):1179. <https://doi.org/10.3390/nu14061179>
  10. Dzakovich MP<sup>9</sup>, Francis DM, **Cooperstone JL**. Biosynthesis of steroidal alkaloids are coordinately regulated and differ among tomatoes in the red-fruited clade. *Plant Genome*, 2022;e20192. <https://doi.org/10.1002/tpg2.20192>
    - Also published as a preprint on bioRxiv <https://doi.org/10.1101/2021.01.06.425594>
  11. Bilbrey EA<sup>9</sup>, Williamson K, Hatzakis E, Doud Miller D, Fresnedo Ramirez J, **Cooperstone JL**. Integrating genomics and multi-platform metabolomics enables metabolite QTL detection in breeding-relevant apple germplasm. *New Phytologist*, 2021;232(5):1944-1958. <https://doi.org/10.1111/nph.17693>
    - Also published as a preprint on bioRxiv <https://doi.org/10.1101/2021.02.18.431481>
  12. Pinho LS, Palazzoli da Silva M, Thomazini M, **Cooperstone JL**, Campanella OH, da Costa Rodrigues CE, Favaro-Trindade CS. Characterization of the composition, carotenoids, and antioxidant activity of guarana (*Paullinia cupana*) peel. *J Food Process Preservation*, 2021;45(10): e15854. <https://doi.org/10.1111/jfpp.15854>
  13. Fenstermaker S, Miller J<sup>9</sup>, **Cooperstone JL**, Francis DM. Estimating parental contributions to hybrid rootstocks in grafted tomato. *Acta Horticulturae*, 2021;1302:241-250. <https://doi.org/10.17660/ActaHortic.2021.1302.32>
  14. Orchard CJ, **Cooperstone JL**, Gas-Pascual E, Andrade MC, Abud G, Schwartz SJ, Francis DM. Rapid assessment through background genome selection identifies alleles in the promoter of the chromoplast-specific *Cyc-B* gene that modules levels of beta-carotene in ripe tomato fruit. *The Plant Genome*, 2021;e20085. <https://doi.org/10.1002/tpg2.20085>
  15. Mukherjee D, DiVincenzo M, Torok M, Choueiry F, Kumar R, Deems A, Miller JL<sup>9</sup>, Hinton A, Geraghty C, Maranon JA, Kulp SK, Coss C, Carson III WE, Hart PA, **Cooperstone JL**, Mace TA. Soy-tomato enriched diet reduces inflammation and disease severity in a pre-clinical model of chronic pancreatitis. *Sci Rep*, 2020;10:21824. <https://doi.org/10.1038/s41598-020-78762-9>

16. Anderson K, Ryan N, Pero T, Siddiqui A, Volpedo G, **Cooperstone JL**, Oghumu S. Black raspberries and protocatechuic acid mitigate DNFB-induced contact hypersensitivity by down-regulating dendritic cell activation and inhibiting mediators of effector responses. *Nutrients*, 2020;12(6):1701. <https://doi.org/10.3390/nu12061701>
17. Dzakovich MP<sup>9</sup>, Hartman JL<sup>9</sup>, **Cooperstone JL**. A high-throughput extraction and analysis method for steroidal glycoalkaloids in tomato. *Front Plant Sci*, 2020;11:767. <https://doi.org/10.3389/fpls.2020.00767>
  - Also published a preprint on bioRxiv <https://doi.org/10.1101/2019.12.23.878223>
18. Shetge SA, Dzakovich MP<sup>9</sup>, **Cooperstone JL**, Kleinmeier D, Redan BW. Concentrations of the opium alkaloids morphine, codeine, and thebaine in poppy seeds are reduced after thermal and washing treatments but are not affected when incorporated in a model baked product. *J Agric Food Chem*, 2020;68(18):5241-5248. <https://doi.org/10.1021/acs.jafc.0c01681>
19. Knobloch NA, Charoenmuang M, **Cooperstone JL**, Patil BS. Developing interdisciplinary thinking in a food and nutritional security, hunger and sustainability graduate course. *Journal of Agricultural Education and Extension* 2020;26(1):113-127. <https://doi.org/10.1080/1389224X.2019.1690014>
20. Knobloch TJ, Ryan NM, Bruschiweiler-Li L, Wang C, Bernier MC, Somogyi A, Yan PS, **Cooperstone JL**, Mo X, Bruschiweiler RP, Weghorst CM, Oghumu S. Metabolic regulation of glycolysis and AMP activated protein kinase pathways during black raspberry-mediated oral cancer chemoprevention. *Metabolites* 2019;9(7):140. <https://doi.org/10.3390/metabo9070140>
21. Dzakovich MP<sup>9</sup>, Gas-Pascual E, Orchard CJ, Sari EN, Riedl KM, Schwartz SJ, Francis DM, **Cooperstone JL**. Analysis of tomato carotenoids: comparison extraction and chromatographic methods. *J AOAC Int*. 2019;102(4):1069-1079. <https://doi.org/10.5740/jaoacint.19-0017>
22. Teegarden MD<sup>9</sup>, Schwartz SJ, **Cooperstone JL**. Profiling the impact of thermal processing on black raspberry phytochemicals using untargeted metabolomics. *Food Chem*, 2019;274:782-788. <https://doi.org/10.1016/j.foodchem.2018.09.053>
23. Teegarden MD<sup>9</sup>, Knobloch TJ, Weghorst CM, **Cooperstone JL**, Peterson DG. Storage conditions modulate the metabolomic profile of a black raspberry nectar beverage with minimal impact on bioactivity. *Food and Function*, 2018;9:4593-4601. [10.1039/C8FO00639C](https://doi.org/10.1039/C8FO00639C)
24. **Cooperstone JL**, Novotny JA, Riedl KM, Cichon MJ, Francis DM, Curley Jr. RW, Schwartz SJ, Harrison EH. Limited appearance of apocarotenoids is observed in plasma after consumption of tomato juices, a randomized human clinical trial. *Am J Clin Nutr*. 2018;108:1-8. <https://doi.org/10.1093/ajcn/nqy177>
25. Westphal A, Riedl KM, **Cooperstone JL**, Kamat S, VM Balasubramaniam, Schwartz SJ, Böhm, V. High pressure processing of broccoli sprouts – influence on bioactivation of glucosinolates to isothiocyanates. *J Agric Food Chem*, 2017;65:8578-8585. <https://doi.org/10.1021/acs.jafc.7b01380>
26. **Cooperstone JL**, Tober KA, Riedl KM, Teegarden MD<sup>9</sup>, Cichon MJ, Francis DM, Schwartz SJ, Oberyszyn TA. Tomatoes protect against development of UV-induced keratinocyte carcinoma via metabolomic alterations. *Sci Reports*, 2017;5:5106. <https://doi.org/10.1038/s41598-017-05568-7>
27. Teegarden MD, Harper AR, **Cooperstone JL**, Tober KA, Schwartz SJ, Oberyszyn TA. 25-Hydroxyvitamin D<sub>3</sub> and its C-3 epimer are elevated in the skin and serum of Skh-1 mice supplemented with dietary vitamin D<sub>3</sub>. *Mol Nutr Food Res*, 2017;61:1700293. <https://doi.org/10.1002/mnfr.201700293>
28. **Cooperstone JL**<sup>\*</sup>, Goetz HJ<sup>\*</sup>, Riedl KM, Harrison EH, Schwartz SJ, Kopec RE. Relative contribution of  $\alpha$ -carotene to postprandial vitamin A concentrations in healthy humans after carrot consumption. *Am J Clin Nutr*, 2017;106:59-66. <https://doi.org/10.3945/ajcn.116.150821>
29. Tan H-L, Thomas-Ahner JM, Moran NE, **Cooperstone JL**, Erdman Jr. JW, Young GS, Clinton SK. B-carotene 9',10' oxygenase modulates the anticancer activity of dietary tomato or lycopene on prostate carcinogenesis in the TRAMP model. *Cancer Prev Res*, 2017;10(2):161-169. <https://doi.org/10.1158/1940-6207.CAPR-15-0402>
30. Yan B, Martinez-Monteaagudo SI, **Cooperstone JL**, Riedl KM, Schwartz SJ, Balasubramaniam VM. Impact of thermal and pressure-based technologies on carotenoid retention and quality

- parameters in tomato juice. *Food Bioprocess Tech*, 2017;10(5):808-818. <https://doi.org/10.1007/s11947-016-1859-y>
31. Phinney DM, Frelka JC, **Cooperstone JL**, Schwartz SJ, Heldman DR. Effect of solvent addition sequence on lycopene extraction efficiency from membrane neutralized caustic peeled tomato waste. *Food Chem*, 2017;215:354-361. <https://doi.org/10.1016/j.foodchem.2016.07.178>
  32. Aschoff JK, Riedl KM, **Cooperstone JL**, Hogel J, Bosy-Westphal A, Schwartz SJ, Carle R, Schweiggert RM. Urinary excretion of *Citrus* flavanones and their major catabolites after consumption of fresh oranges and pasteurized orange juice – a randomized cross-over study. *Mol Nutr Food Res*, 2016;60:2602-2610. <https://doi.org/10.1002/mnfr.201600315>
  33. Goetz HJ, Kopec RE, Riedl KM, **Cooperstone JL**, Narayanasamy S, Curley Jr., RW, Schwartz SJ. An HPLC-MS/MS method for the separation of  $\alpha$ -retinyl esters from retinyl esters. *J Chrom B*, 2016;1029:68-71. <https://doi.org/10.1016/j.jchromb.2016.06.043>
  34. **Cooperstone JL**, Francis DM, Schwartz SJ. Thermal processing differentially affects lycopene and other carotenoids in *cis*-lycopene containing, *tangerine* tomatoes. *Food Chem* 2016;210:466-472. <https://doi.org/10.1016/j.foodchem.2016.04.078>
  35. **Cooperstone JL**, Ralston RA, Riedl KM, Haufe TC, Schweiggert RM, King SA, Timmers CD, Francis DM, Lesinski GB, Clinton SK, Schwartz SJ. Enhanced bioavailability of lycopene when consumed as *cis*-isomers from *tangerine* compared to red tomato juice, a randomized, cross-over clinical trial. *Mol Nutr Food Res*. 2015;59:658-669. <https://doi.org/10.1002/mnfr.201400658>
  36. Arango D, Diosa-Toro M, Rojas-Hernandez LS, **Cooperstone JL**, Schwartz SJ, Jiang J, Schmittgen TD, Mo X, Doseff AI. Dietary apigenin reduces LPS-induced expression of miR-155 restoring immune balance during inflammation. *Mol Nutr Food Res*. 2015;59:763-772. <https://doi.org/10.1002/mnfr.201400705>
  37. Kopec RE, **Cooperstone JL**, Schweiggert RM, Young GS, Harrison EH, Francis DM, Clinton SK, Schwartz SJ. Avocado consumption enhances human postprandial provitamin A absorption and conversion from a novel high-beta-carotene tomato sauce and from carrots. *J Nutr*. 2014;144:1158–66. <https://doi.org/10.3945/jn.113.187674>
  38. Pumilia G\*, Cichon MJ\*, **Cooperstone JL\***, Giuffrida D, Dugo G, Schwartz SJ. Changes in chlorophylls, chlorophyll degradation products and lutein in pistachio kernels (*Pistachia vera* L.) during roasting. *Food Res Int*, 2014;65B:193-198. <https://doi.org/10.1016/j.foodres.2014.05.047>

**PUBLICATIONS IN REVISION/UNDER REVIEW** (<sup>g</sup>Cooperstone lab graduate student, \*co-first author, corresponding author underlined):

1. Pinho L, Lima PM, Fang F, Cooperstone JL, Favaro-Trindade CS, Campanella OH. Effect of extrusion process conditions on extrudates enriched with carotenoids encapsulated by different methods. Submitted to *International Journal of Biological Macromolecules*, January 12, 2024.
2. Sholola MJ<sup>g</sup>, Goggans ML<sup>g</sup>, Dzakovich MP<sup>g</sup>, Francis DM, Jacobi SK, **Cooperstone JL**. Discovery of steroidal alkaloid metabolites and their accumulation in pigs after short-term tomato consumption. Submitted to *Molecular Nutrition and Food Research*, February 6, 2024.

**PREPRINTS** (listed in reverse chronological order, <sup>g</sup>Cooperstone lab graduate student, \*co-first author, corresponding author underlined):

1. Sholola MJ<sup>g</sup>, Goggans ML<sup>g</sup>, Dzakovich MP<sup>g</sup>, Francis DM, Jacobi SK, **Cooperstone JL**. Discovery of steroidal alkaloid metabolites and their accumulation in pigs after short-term tomato consumption. bioRxiv, February 8, 2024. <https://doi.org/10.1101/2024.02.05.579005>
2. Dzakovich MP<sup>g</sup>, Goggans ML<sup>g</sup>, Thomas-Ahner JM, Moran NE, Clinton SK, Francis DM, **Cooperstone JL**. Transcriptomics and metabolomics reveal tomato consumption alters hepatic xenobiotic metabolism and induces steroidal alkaloid metabolite accumulation in mice. bioRxiv, April 18, 2023. <https://www.biorxiv.org/content/10.1101/2023.04.18.536606v1>
  - o Published in *Molecular Nutrition and Food Research* <https://doi.org/10.1002/mnfr.202300239>

3. Goggans ML<sup>9</sup>, Bilbrey EA<sup>9</sup>, Quiroz-Moreno CD<sup>9</sup>, Francis DM, Jacobi SK, Kovac J, Cooperstone JL. Short term tomato consumption alters the pig gut microbiome towards a more favorable profile. bioRxiv, May 13, 2022, <https://doi.org/10.1101/2022.05.13.489542>
  - Published in Microbiology Spectrum <https://doi.org/10.1128/spectrum.02506-22>
4. Fenstemaker S, Sim L, Cooperstone JL, Francis DM. *Solanum galapagense*-derived purple tomato fruit color is conferred by novel alleles of the *Anthocyanin fruit* and *atrorivoliacium* loci. bioRxiv, November 9, 2021, <https://doi.org/10.1101/2021.11.09.467926>
  - Published in Plant Direct <https://doi.org/10.1002/pld3.394>
5. Bilbrey EA<sup>9</sup>, Williamson K, Hatzakis E, Doud Miller D, Fresnedo Ramírez J, **Cooperstone JL**. Integrating genomics and multi-platform metabolomics enables metabolite QTL detection in breeding-relevant apple germplasm. bioRxiv, February 18, 2021, <https://doi.org/10.1101/2021.02.18.431481>
  - Published in New Phytologist <https://doi.org/10.1111/nph.17693>
6. Dzakovich MP<sup>9</sup>, Francis DM, **Cooperstone JL**. Biosynthesis of steroidal alkaloids are coordinately regulated and differ among tomatoes in the red-fruited clade. bioRxiv, January 7, 2021, <https://doi.org/10.1101/2021.01.06.425594>
  - Accepted in The Plant Genome <https://doi.org/10.1002/tpg2.20192>
7. Dzakovich MP<sup>9</sup>, Hartman JL<sup>9</sup>, **Cooperstone JL**. A high-throughput extraction and analysis method for steroidal glycoalkaloids in tomato. bioRxiv, December 23, 2019, <https://doi.org/10.1101/2019.12.23.878223>
  - Published in Frontiers in Plant Science <https://doi.org/10.3389/fpls.2020.00767>

#### BOOK CHAPTERS (listed in reverse chronological order, \*co-first author):

1. **Cooperstone JL**, Schwartz, SJ. Chapter 23: Recent Insights Into Health Benefits of Carotenoids. In: Schweiggert, R.M. (Ed.), Handbook on Natural Pigments in Food and Beverages: Industrial Applications for Improving Food Color, 2nd Edition. Woodhead Publishing, 2024. eBook ISBN: 9780323996099. <https://www.sciencedirect.com/book/9780323996082/handbook-on-natural-pigments-in-food-and-beverages#book-info>
2. Sholola MJ<sup>9</sup>, **Cooperstone JL**. Carotenoid extraction and analysis of blood plasma/serum. Methods in Enzymology 670: Carotenoid and Apocarotenoid Analysis. Ed. Eleanore Wurtzel. 2022;670:425-457. <https://doi.org/10.1016/bs.mie.2022.03.021>
3. **Cooperstone JL**. Lycopene: Food Sources, Properties, and Effects on Human Health. In: The Handbook of Nutraceuticals and Functional Foods, 3<sup>rd</sup> edition. Eds. Wildman REC, Bruno RS. CRC Press, Boca Raton, FL, 2020. P.37-53. ISBN [9781498703727](https://doi.org/10.1016/B978-0-08-100371-8.00020-8)
4. Schwartz SJ, **Cooperstone JL**, Cichon MJ, von Elbe JH, Giusti M. Colorants. In: Fennema's Food Chemistry; 5<sup>th</sup> edition, Parkin KL, Damodaran S eds.; CRC Press: Boca Raton, FL. 2017. P. 681-752. <https://doi.org/10.1201/9781315372914>
5. **Cooperstone JL**, Schwartz, SJ, Recent Insights Into Health Benefits of Carotenoids. In: Carle, R., Schweiggert, R.M. (Eds.), Handbook on Natural Pigments in Food and Beverages: Industrial Applications for Improving Food Color. Woodhead Publishing, 2016. P. 473–497. <https://doi.org/10.1016/B978-0-08-100371-8.00020-8>
6. Kopec RE\*, **Cooperstone JL\***, Cichon MJ\*, Schwartz SJ. Analysis Methods of Carotenoids. In: *Analysis of Antioxidant Rich Phytochemicals*; Xu, Z., Howard, L.R. eds.; John Wiley & Sons: Hoboken, NJ, 2012. P. 105-148. <https://doi.org/10.1002/9781118229378.ch4>

#### GUEST EDITOR:

1. [Phytochemical Changes in Vegetables During Post-harvest Storage and Processing, and Implications for Consumer Benefits](#). Research Topic for *Frontiers in Nutrition*, 2021
2. [Plant, Food and Nutritional Metabolomics for Health Enhancement](#). Special Issue of *Metabolites*, 2019

#### PUBLISHED ABSTRACTS (listed in reverse chronological order, <sup>9</sup>Cooperstone lab graduate student):

1. Do D<sup>g</sup>, Sholola MJ<sup>g</sup>, **Cooperstone JL**. Pharmacokinetics of Tomato Steroidal Alkaloids in Healthy Adults Following Consumption of Two Doses of Tomato Juice, *Curr Dev Nutrition* 2023;7(1);100527. <https://doi.org/10.1016/j.cdnut.2023.100527>
2. Sholola MJ<sup>g</sup>, Miller JL<sup>g</sup>, Bilbrey EA<sup>g</sup>, Torok M, Novotny J, Francis DM, Mace TA, **Cooperstone JL**. The Effects of a Lycopene-Rich Tomato Juice Enhanced With Soy Isoflavones on Inflammation in Individuals With Obesity. *Curr Dev Nutrition* 2023;7(1);101489. <https://doi.org/10.1016/j.cdnut.2023.101489>
3. Geraghty C, Thomas-Ahner J, Powell R, Schmidt N, Chitchumroonchokchai C, Riedl K, Solden L, Bailey M, Hussan H, Francis D, **Cooperstone J**, Mo X, Young G, Freitas M, Schwartz S, Moran N, Clinton S. Dietary tomato varieties similarly inhibit prostate carcinogenesis in the TRAMP model in association with distinct transcriptomic and metabolomic profiles. *Curr Dev Nutrition* 2020;4(2);326. [https://doi.org/10.1093/cdn/nzaa044\\_025](https://doi.org/10.1093/cdn/nzaa044_025)
4. Choueiry F, DiVincenzo M, Deems A, Torok M, Kulp SK, Carson WE, Hart PA, **Cooperstone JL**, Mace TA\*. Soy-tomato Enriched Diet Reduces Inflammation and Disease Severity in a Pre-clinical Model of Chronic Pancreatitis. *Pancreas* 2019;48(10):1414-1415. Doi: [10.1097/MPA.0000000000001419](https://doi.org/10.1097/MPA.0000000000001419)
5. DiMarco D, Bilbrey EA<sup>g</sup>, Cichon MJ, Luz-Fernandez M, **Cooperstone JL**. Impact of 3 eggs/day on the plasma lipidome of young, healthy adults. *Curr Dev Nutrition* 2019;3(1):OR19-4-19. <https://doi.org/10.1093/cdn/nzz046.OR19-04-19>
6. **Cooperstone JL\***, Riedl KM, Cichon MJ, Francis DM, Curley Jr. RW, Schwartz SJ, Novotny JA, Harrison EH. [Carotenoids and apo-carotenoids in human plasma after continued consumption of high beta-carotene or high lycopene tomato juice](#). *FASEB J*. 2017;31(1):635.13
7. **Cooperstone JL\***, Teegarden MD, Cichon MJ, Tober KA, Oberyszyn TM, Schwartz SJ. [Using untargeted metabolomics to elucidate metabolic changes in murine skin following tomato supplementation](#). *FASEB J*. 2016;30(1):908.1
8. Teegarden MD, Cichon MJ, **Cooperstone JL**, Ahn-Jarvis JH, Weghorst CM, Vodovotz Y, Schwartz SJ. [Untargeted profiling of the urinary metabolomes of smokers and nonsmokers after a strawberry intervention](#). *FASEB J*. 2016;30(1):911.6
9. **Cooperstone JL\***, Tober KA, Riedl KM, Riggerbach JA, Francis DM, Schwartz SJ, Oberyszyn TM. [Tomato carotenoids protect against UV-induced cutaneous damage and tumor development in Skh-1 hairless mice](#). *FASEB J*, April 2014, 28(1):645.7
10. Goetz HJ, Kopec RE, Riedl KM, **Cooperstone JL**, Narayanasamy S, Curley RW, Harrison EH, Schwartz SJ. [Separation of  \$\alpha\$ -retinyl palmitate and quantification of vitamin A after consumption of carrots containing  \$\alpha\$ -carotene](#). *FASEB J*, April 2014, 28(1): 645.24
11. **Cooperstone JL\***, Ralston RA, Riedl KM, Francis DM, Lesinski GB, Clinton SK, Schwartz SJ. [Increased carotenoid bioavailability from a unique, cis-lycopene containing tangerine-type tomato](#). *FASEB J*, April 9, 2013 27:38.1
12. Kopec RE, **Cooperstone JL**, Schweiggert RM, Riedl KM, Harrison EH, Francis DM, Clinton SK, Schwartz SJ. [Provitamin A absorption and conversion from a unique high beta-carotene tomato is higher when consumed with avocado](#). *FASEB J*, March 29, 2012 26:31.5

#### GRANTS AWARDED (listed in reverse chronological order):

Summary: Total support since 2017: \$2.475M (\$2.340 as PI or Co-PI), external support: \$2.253M.

Highlights: 2 USDA AFRI projects, 2 USDA National Needs Fellowships, 1 FFAR New Innovator Award, 2 Ohio Department of Agriculture Specialty Crop Block Grants

- Wang G-L (PI), **Cooperstone JL (Co-I)**, Francis DM (Co-I). Towards biofortification of crops using novel cell penetrating peptides. CFAES Internal Grants Program, October 8, 2023, \$75,000
- **Cooperstone JL**. Visiting professor award, [CAPES/Print Program](#) (Brazil). Visit to Federal University Rio Grande do Sul (UFRGS) to teach workshops on metabolomics. May 2024, R\$14650 (~\$3,000 USD)

- Do D<sup>g</sup> (PI), **Cooperstone JL** (Adviser). Investigating the role of steroidal alkaloids from a tomato intervention on cholesterol absorption, metabolism, and excretion in mice. OSU College of Food, Agricultural, and Environmental Science Internal Grants Program, 4/2023-3/2025, \$5,000.
- Sholola MJ<sup>g</sup> (PI), **Cooperstone JL** (Adviser). Integrating transcriptomics and metabolomics to understand metabolic pathways altered with tomato consumption. OSU College of Food, Agricultural, and Environmental Science Internal Grants Program, 4/2023-5/2024, \$5,000.
- **Cooperstone JL (PI)**, Kubota C. Bioactive phytochemical enhancement in arugula using hydroponic production methods. Foods for Health INNOVATE Award, \$50,000. 7/1/2023 – 6/30/2025.
- **Cooperstone JL (PI)**, Fresnedo Ramírez J (Co-PI), Miller DD. An apple a day: interrogating apple for crop nutritional quality improvement. USDA NIFA, A1103 Foundational Knowledge of Plant Products, 2022-08458, August 18, 2022, \$647,000.
- Mace TA (PI), **Cooperstone JL (Co-I)**, Hart PA. Soy-tomato dietary intervention to reduce inflammatory eosinophils. OSU Foods for Health STRENGTHEN Seed Grant, 9/1/2022-8/31/2023. \$20,000.
- **Cooperstone JL (PI)**, Miller DD (Co-PI), Fresnedo Ramírez J (Co-PI), Simons C (Co-PI). Improving apple quality to fill gaps in the U-pick market. Ohio Department of Agriculture Specialty Crops Block Grant. 11/1/2022 – 10/31/2024, \$109,945.
- Hartman JL (PI), **Cooperstone JL** (Adviser). Are steroidal glycoalkaloids imparting bitterness in tomato?. Ohio Agricultural Research and Development Center Student SEEDS Grants, 4/1/2021 – 3/30/2022. \$5,000
- Fresnedo-Ramirez J (PI), **Cooperstone JL (Co-PI)**, Francis DM (Co-PI), Gschwend AR (Co-PI), McHale L (Co-PI), Sneller C (Co-PI), Stockinger E (Co-PI). Trans-omics assisted plant breeding for enhanced nutrition. U.S. Department of Agriculture National Needs Fellowship. 1/14/2021 – 1/13/2026. \$262,500
- Mace TA (PI), **Cooperstone JL**, Hart P. Soy-tomato enriched diet modulates inflammation in chronic pancreatitis. National Pancreas Foundation. 6/2020 – 5/2021, \$50,000
- **Cooperstone JL (PI)**, Francis DM. Improving the nutritional quality of tomatoes. Foundation for Food and Agricultural Research New Innovator Award. 1/2020-12/2022, \$299,042 FFAR (\$299,865 match).
- **Cooperstone JL (PI)**, Hatzakis E, Kopec RE, Peterson DG. Metabolomics across the food system: an integrated graduate training program. USDA National Needs Fellowship Training Grant, 4/10/2020 – 4/09/2025, \$262,500.
- **Cooperstone JL**, Simons CT, Barringer SA. The Ohio State University Food Science and Technology Undergraduate Summer Scholars, Support for students to attend the IFT 2020 Annual Meeting. IFT Feeding Tomorrow Foundation. January 2020. \$6,500.
- Oghumu S (PI), **Cooperstone JL**. Inhibition of allergic contact dermatitis by black raspberry photochemicals: mechanisms and applications. The Ohio State University Discovery Themes Foods for Health Seed Grant. 9/1/2019 – 8/31/2020, \$25,000.
- Goggans M (PI), **Cooperstone JL** (Adviser). Using Metagenomics to Assess the Effect of Tomato Consumption on the Gut Microbiome. Ohio Agricultural Research and Development Center Student SEEDS Grants, 4/1/2019-3/31/2020. \$5,000.
  - Ranked #3 of 57 submitted grants.
- **Cooperstone JL (PI)**, Fresnedo Ramirez J, Hatzakis E, Miller DD. Linking apple genomics and metabolomics for nutrition-driven germplasm improvement. The Ohio State University Discovery Themes Foods for Health Seed Grant. 09/01/2018 – 08/31/2019. \$25,000.
- Kirk A (PI), **Cooperstone JL (Co-PI)**, Miller DD (Co-PI), Ohio Cider: From Apple Frontier to Signature Cheer. Ohio Department of Agriculture Specialty Crop Promotion Program. 10/12/2018 – 09/31/3020. \$80,000.
- **Cooperstone JL (PD/PI)**, Mace TA (Co-PI), Belury MA, Clinton SK, Francis DM, Mathé E, Novotny JA. [Modulation of inflammation in obese males after consuming a functional tomato-soy juice](#). USDA-AFRI Foundational Program, Function and Efficacy of Foods priority within Food Safety, Nutrition and Health. 03/2018-02/2024. \$500,000

- **Cooperstone JL (PI)**, Hatzakis E, Kubota C. Ohio Agricultural Research and Development Center (OARDC) Equipment Grant. \$27,500.
- Harrison EH (Co-PI), **Cooperstone JL**. Metabolomics of controlled tomato intervention. USDA/NIH Interagency Agreement, 09/2017 – 07/2019, \$15,000.
- Francis DM (PI), Clinton SK, **Cooperstone JL**, Dzakovich MD. Metabolomic and transcriptional responses to diets containing red or tangerine tomatoes. The Ohio State University Foods for Health (FFH) and Food Innovation Center (FIC) Seed Grant. 07/2017 – 06/2018. \$25,000.
- **Cooperstone JL (PI)**, Francis DM, Jacobi SA, Cichon MJ, Dzakovich MD. From bitter to better: exploring natural variation, bioavailability and tissue distribution of tomato alkaloids. Ohio Agricultural Research and Development Center, Early Career Investigator SEEDs grant. 04/2017 – 03/2020. \$50,000.
  - Ranked #1 of 32 grants submitted in the Fall 2016 funding cycle.
- **Cooperstone JL (PI)**. Untargeted metabolomics elucidate global metabolic changes associated with chronic egg consumption in humans. Egg Nutrition Center Young Investigator Research Award. 08/2016-01/2018. \$20,000.
- Oberyszyn TM, Schwartz SJ, Teegarden MD, **Cooperstone JL**, Tober KA, Riedl KM. Determination of 17 $\beta$ -Estradiol Concentrations in Skin and Plasma of SKH-1 Mice Following Topical Administration of a <sup>13</sup>C Labeled Dose. Center for Advanced Functional Foods Research and Entrepreneurship/OSU Comprehensive Cancer Center Molecular Carcinogenesis and Chemoprevention, 01/2016-12/2016, \$8,000.
- Schwartz SJ, Francis DM, Lesinski GB. Ohio Agricultural Research and Development Center (OARDC) SEEDS Matching Grant: Enhancing bioavailability and nutritional quality of processed tomato products. \$50,000. 07/2012-01/2014.
  - Wrote grant and executed project.
- Schwartz SJ, **Cooperstone JL**, Ralston RA. National Science Foundation's Industry/University Cooperative Research Center, Center for Advanced Processing and Packaging Studies (CAPPS) Grant: Enhancing bioavailability and nutritional quality of processed tomato products. \$60,290, 05/2012 – 12/2013.

AWARDS (listed in reverse chronological order):

- [GRO Academy](#), Ohio State University, 2023. A research training program for mid-career faculty interested in research leadership
- [STARS Program Cohort](#), College of Food, Agricultural, and Environmental Science, 2021-2022
- [Emerging Leaders Network](#), a selective global leadership network, Institute of Food Technologists, July 2018, Chicago, IL.
- Early Career Members Travel Award, The Metabolomics Society, 13<sup>th</sup> Annual International Conference of the Metabolomics Society, June 2017, Brisbane, Australia.
- 1<sup>st</sup> place, OSU Russell Klein Nutrition Research Symposium, Postdoctoral category, 2014.
- [Lisa and Dan Wampler Graduate Fellowship for Food and Health Research](#). May 2012-December 2014.
  - First recipient of a fellowship created by a \$1.2M gift to support research in the area of foods and health.
- 2<sup>nd</sup> place, Institute of Food Technologists Nutrition Poster Competition, July 2013
- Phi Tau Sigma Gideon "Guy" Livingston Scholarship, Spring 2013
  - A scholarship given to an associate member of Phi Tau Sigma to acknowledge that student's scholastic achievements and dedication to Phi Tau Sigma.
- 1<sup>st</sup> place, OSU Hayes Research Forum, College of Food, Agriculture and Environmental Science. Winter 2012
  - University-wide research forum with over 440 applicants, 130 finalist participants and 10 first place winners.
- 2<sup>nd</sup> place, Ohio Valley Institute of Food Technologists Symposium. Winter 2012.



- Ohio Valley Institute of Food Technologists Grady Chism III Graduate Student Award. Spring 2012
- Ohio Valley Institute of Food Technologists John Litchfield Graduate Scholarship. Spring 2010 and Spring 2011
- 1<sup>st</sup> place, Institute of Food Technologists College Bowl Competition, National Championship. June 2011
- 1<sup>st</sup> place, Institute of Food Technologists Nutraceuticals and Functional Foods Poster Competition. June 2011
- American Chemical Society (ACS) Roy Teranishi Graduate Fellowship in Food Chemistry. Spring 2011
  - An award given to a beginning stage graduate student with an excellent GPA who shows promise of an excellent graduate research career
- Unilever United States Undergraduate Award, Cornell University, Spring 2009
- Undergraduate Award, Cornell Institute of Food Science, Spring 2008

#### INVITED TALKS:

1. **Cooperstone JL\***. Are plant-based alternative foods a healthier choice? Panel hosted by the Nutrition Division at the Institute of Food Technologists Annual Meeting, July 15-17, 2024.
2. Cooperstone JL\*. Title TBD: Research Paradigms to Study the Impact of Food across the Cancer Spectrum. Columbus, OH, April 25, 2024.
3. **Cooperstone JL\***. Towards understanding the chemical basis for the health benefits of tomato-rich diets. Solanaceae Seminar (online), October 20, 2023.  
<https://youtu.be/nk59BKoG2Qg?si=kJsF9ao5U3nPP8y5>
4. **Cooperstone JL\***. Understanding and modifying crop phytochemical profiles to enhance human health. Biology Seminar, East Tennessee State University, October 11, 2023.
5. **Cooperstone JL\***. Integrating plant science and human nutrition to understand phytochemical bioactivity in crops. [Annual Conference of the Phytochemical Society of North America](#), Keynote Speaker for Chemistry, Food Security, & Nutrition, East Lansing, Michigan. July 16-20, 2023.
6. **Cooperstone JL\***. Integrating multi-omics techniques towards understanding metabolism and the health effects of carotenoids, [19<sup>th</sup> International Conference on Carotenoids](#), the International Carotenoid Society, Toyama, Japan, July 9-14, 2023.
7. **Cooperstone JL\***. Multi-omics approaches towards the development of healthier fruits and vegetables. Gordon Research Conference on [Plant Metabolic Engineering](#), Castelldefels, Spain, June 11-16, 2023.
8. **Cooperstone JL\***. Title TBD. [Midwest Microbiome Symposium](#), "You are what your microbe eat: Microbes and Nutrition," Columbus, OH, May 8-10, 2023.
9. **Cooperstone JL\***. Understanding and modifying crop phytochemical profiles to enhance human health. Keynote at the [Annual Meeting of the Phytochemical Society of North America](#), Blacksburg, VA, July 24-28, 2022.
10. **Cooperstone JL\***. Multi-omics approaches towards the development of healthier fruits and vegetables. [International Horticultural Congress, Integrative approaches to product quality in fruits and vegetables](#), Keynote Speaker, Angers, France (invited), August 14-20, 2022.
11. **Cooperstone JL\***. How can we make healthier crops? Ohio State University Horticulture and Crop Science Seminar, February 9, 2022.
12. **Cooperstone JL\***. Linking plant biochemicals with human health benefits. [Ohio Food Industry Summit](#), virtual, April 15, 2021.
13. **Cooperstone JL\***. Developing a biochemical understanding of the health benefits of consuming tomato-rich diets. American Chemical Society, Agricultural and Food Chemistry Division, "Beyond Chemistry: Consumer Acceptance of Flavor, Food Safety and Health Benefits of Fruits and Vegetables" Symposium, April 8, 2021. Virtual.

14. **Cooperstone JL\***. [Using and integrating -omics towards understanding the health benefits of fruits and vegetables](#). Ohio State University Department of Biomedical Informatics, March 5, 2021, Virtual.
15. **Cooperstone JL\***. Understand the health benefits of tomato using mass spectrometry. [4<sup>th</sup> Annual Ohio Mass Spectrometry and Metabolomics Symposium](#), Virtual, October 7-8, 2020.
16. **Cooperstone JL\***. Title TBD. Colorado State University, Department of Food Science and Nutrition Seminar, Fort Collins, CO (invited), April 30, 2020.
  - Cancelled because of COVID-19
17. Dzakovich MD<sup>g</sup>, Hartman JL<sup>g</sup>, Francis DM, **Cooperstone JL**. Exploring natural variation in tomato steroidal glycoalkaloids: using small tomatoes to answer big questions. Exploring natural variation in tomato steroidal glycoalkaloids: using small tomatoes to answer big questions, Oral presentation, Ohio Mass Spectrometry and Metabolomics Symposium, Columbus, OH, October 1-2, 2019 (oral presentation).
18. Bilbrey EA<sup>g</sup>, **Cooperstone JL**. Linking genomics and metabolomics for nutrition-driven germplasm improvement of apples. Center for Applied Plant Sciences Seminar, Columbus, OH, August 9, 2019.
19. Dzakovich MP<sup>g</sup>, **Cooperstone JL**. From Bitter to Better: Exploring Variation in Tomato Glycoalkaloids. Center for Applied Plant Sciences Seminar, Columbus, OH, July 12, 2019.
20. **Cooperstone JL\***. Using metabolomics for discovery of biomarkers of strawberry consumption. 2<sup>nd</sup> Annual Plant Science Symposium. Columbus, OH, March 29-30, 2019.
21. **Cooperstone JL\***. [Using metabolomics for discovery of bioactive compounds: a tomato story](#). Penn State University Food Science Seminar, State College, PA, March 21, 2019.
22. **Cooperstone JL\***. TEDxOhioStateUniversity Salons, [Nourish](#). Columbus, OH, November 13, 2018.
23. **Cooperstone JL\***. Carotenoids and apocarotenoids: from plants to mammals. The Ohio State University Center for Applied Plant Sciences Seminar, Columbus, OH, September 14, 2018.
24. Teegarden MD<sup>g</sup>, Dzakovich MP<sup>g</sup>, Francis DM, Peterson DG, **Cooperstone JL\***. Using metabolomics to better understand secondary plant metabolites and their health benefits. International Horticulture Congress (IHC) 2018, VII International Symposium on Human Health Effects of Fruits and Vegetables, FAVHEALTH2018 Keynote Speaker, Istanbul, Turkey, August 15, 2018.
25. **Cooperstone JL\***, Dzakovich MP<sup>g</sup>, Novotny JA, Clinton SK, Thomas-Ahner JM, Curley Jr. RW, Schwartz SJ, Francis DM, Harrison EH. Insights on carotenoids,  $\beta$ -apocarotenoids and apolycopenoids in human plasma and mouse liver after tomato consumption. Gordon Research Conference on Carotenoids, Newry, MA, June 17-22, 2018.
26. **Cooperstone JL\***. Using metabolomics to understanding chemical changes and bioactivity of black raspberries through thermal processing and storage. [2<sup>nd</sup> Annual Ohio Mass Spectrometry and Metabolomics Symposium](#), Food and Nutritional Metabolomics session. Invited speaker, Columbus, OH, May 16-17, 2018.
27. **Cooperstone JL\***. Tomatoes, health and the metabolome. [Tomato Breeders' Roundtable Meeting](#), Wooster, OH, April 6, 2018.
28. **Cooperstone JL\***. Food processing effects on phytochemicals and their absorption. Food, Water & Energy from Sustainable Crops, American Chemical Society National Meeting, March 18-22, 2018. Invited talk.
29. **Cooperstone JL\***. Plant based (human) disease prevention: approaches to understanding phytochemical bioactivity *in vivo*. Wooster Area Molecular Biology Association (WAMBA), Wooster, OH, February 16, 2018.
30. **Cooperstone JL\***. Using metabolomics to better understand secondary plant metabolites and their health benefits. The Ohio State University Human Nutrition Seminar, January 26, 2018.
31. **Cooperstone JL\***. Using metabolomics to better understand secondary plant metabolites and their health benefits. Center for Applied Plant Sciences (CAPS) Seminar, December 8, 2017.
32. **Cooperstone JL\***, Teegarden MD<sup>g</sup>, Cichon MJ, Tober KL, Francis DM, Oberyszyn TM, Schwartz SJ. Metabolomics aids in discovery of putative bioactive compounds from tomatoes in

a model of keratinocyte carcinoma. [Inaugural Conference on Food and Nutritional Metabolomics and 14<sup>th</sup> Annual Ohio Mass Spectrometry Symposium](#), Columbus, OH, May 17-18, 2017. Oral presentation, Mass spectrometry/metabolomics.

33. **Cooperstone JL\***. Tangerine tomatoes: from crops to the clinic. Plant and Food Research, Palmerston North, New Zealand; University of Auckland, Auckland, New Zealand, [Wanganui Science Forum, Wanganui, New Zealand](#). March/April 2017.
  - a. Invited series of talks with horticulturists, food scientists and nutritionists with interest in tomatoes and disease prevention around New Zealand.

**ABSTRACTS/ORAL AND POSTER PRESENTATIONS** (listed in reverse chronological order, \*presenter, <sup>g</sup>Cooperstone lab graduate student, <sup>u</sup>undergraduate student):

1. Do D<sup>g</sup>, Casperson S, **Cooperstone JL**.
2. Quiroz Moreno CD<sup>g</sup>, **Cooperstone JL**. Quantitative analysis of plant phenolics by LC-MS/MS, and PhenolicsDB: a publicly available high-resolution MS/MS spectral library. American Society for Mass Spectrometry, Anaheim, CA, June 2-6, 2024.
3. Do D<sup>d</sup>, Sholola MG<sup>g</sup>, **Cooperstone JL**. Absorption and Metabolism of Steroidal Alkaloids from Tomato Juice in Healthy Adults: a Pharmacokinetic Study. Ohio Mass Spectrometry Symposium (Oral Presentation), Columbus, OH, October 18-19, 2023.
4. Quiroz Moreno CD<sup>g</sup>, **Cooperstone JL**. MS2extract: an R package for a scalable LC-MS/MS compound library creation. Ohio Mass Spectrometry Symposium (Oral Presentation), Columbus, OH, October 18-19, 2023.
5. Sholola MG<sup>g</sup>, Miller JM<sup>g</sup>, Bilbrey EA<sup>g</sup>, Torok MA, Novotny JA, Francis DM, Mace TA, **Cooperstone JL**. The effects of a lycopene-rich tomato juice enhanced with soy isoflavones on inflammation in individuals with obesity. Ohio Mass Spectrometry Symposium (Poster Presentation), Columbus, OH, October 18-19, 2023.
6. Emanuel IB, Lin S, Laird AE, **Cooperstone JL**, Peduto Hand F. Deciphering host-pathogen and fungal-fungal interactions within the latent fruit rot of winterberry pathosystem: from the field to the biochemistry. International Congress of Plant Pathology, Lyon, France, August 20-25, 2023.
7. Emanuel IB, Laird AE, **Cooperstone JL**, and Peduto Hand F. Understanding host-pathogen and fungal-fungal interactions within the latent fruit rot of winterberry pathosystem. American Phytopathological Society, Plant Health, Denver, CO, August 12-16, 2023.
8. Do D<sup>g</sup>, Sholola MJ<sup>g</sup>, **Cooperstone JL**. Pharmacokinetics of Tomato Steroidal Alkaloids in Healthy Adults Following Consumption of Two Doses of Tomato Juice, American Society for Nutrition, Nutrition 2023, Boston, MA, July 22-25, 2023.
9. Sholola MJ<sup>g</sup>, Miller JL<sup>g</sup>, Bilbrey EA<sup>g</sup>, Torok M, Novotny J, Francis DM, Mace TA, **Cooperstone JL**. American Society for Nutrition, Nutrition 2023, Boston, MA, July 22-25, 2023.
10. Quiroz Moreno CD<sup>g</sup>, **Cooperstone JL**. MS2extract: an R package for a scalable LC-MS/MS compound library creation. Metabolomics Society, Niagara Falls, Canada, June 18-22, 2023.
11. Do D<sup>g\*</sup>, Sholola MJ<sup>g</sup>, **Cooperstone JL**. Pharmacokinetics of tomato steroidal alkaloids in healthy adults following consumption of two different tomato juices. Ohio Mass Spectrometry and Metabolomics Symposium, Columbus, OH, October 12-13, 2022.
12. Quiroz-Moreno CD<sup>g\*</sup>, Bilbrey EA<sup>g</sup>, Miller DD, Fresnedo Ramírez J, **Cooperstone JL**. Development of a publicly available LC-MS/MS spectral library for the analysis of the *Rosaceae* metabolome. Ohio Mass Spectrometry and Metabolomics Symposium, Columbus, OH, October 12-13, 2022.
13. Hartman JL<sup>g\*</sup>, Dzakovich MP<sup>g</sup>, Simons CS, Francis DM, **Cooperstone JL**. Integrating metabolomics and quantitative analysis to examine metabolic differences between near-isogenic high-alkaloid tomatoes. Ohio Mass Spectrometry and Metabolomics Symposium, Columbus, OH, October 12-13, 2022.

14. Sholola MJ<sup>g\*</sup>, Goggans ML<sup>g</sup>, Dzakovich MP<sup>g</sup>, Francis DM, Jacobi S, **Cooperstone JL**. A mass spectrometry-based approach for quantification of steroidal alkaloids in pig plasma after tomato consumption. Ohio Mass Spectrometry and Metabolomics Symposium, Columbus, OH, October 12-13, 2022. Oral presentation.
15. Brewer A<sup>u\*</sup>, Hartman JL<sup>g</sup>, Francis DM, **Cooperstone JL**. A quantitative exploration of wounding-induced changes to tomato steroidal glycoalkaloid profiles in diverse tomato fruits. Ohio Mass Spectrometry and Metabolomics Symposium, Columbus, OH, October 12-13, 2022.
16. Morales J\*, Mohsin M, Rennie E, Wang M, **Cooperstone JL**, Hartman JL<sup>g</sup>, Quiroz-Moreno CD<sup>g</sup>, Cuthbertson D. Feature Based Molecular Networking in GNPS using MassHunter tools for Feature Finding and Feature Alignment - Case Study in Tomato Comparing Commercial Varieties and Wild Accessions. [Metabolomics 2022](#), 18<sup>th</sup> Annual Meeting of the Metabolomics Society, Valencia Spain, June 19-22, 2022.
17. Miller JL<sup>g</sup>, Goggans ML<sup>g</sup>, Dzakovich MP<sup>g</sup>, **Cooperstone JL\***. Discovering biomarkers of tomato consumption using animal studies, human clinical trials, metabolomics, and targeted analyses. [Metabolomics 2022](#), 18<sup>th</sup> Annual Meeting of the Metabolomics Society, Valencia Spain, June 19-22, 2022.
18. Brewer A<sup>u\*</sup>, Hartman JL<sup>g</sup>, Francis DM, **Cooperstone JL**. A quantitative exploration of wounding-induced changes to tomato steroidal alkaloid profiles across diverse tomato accessions. OSU Spring Undergraduate Research Forum, April 7, 2022.
19. Bilbrey EA<sup>g</sup>, Williamson K, Miller DD, Hatzakis E, Fresnedo Ramirez J, **Cooperstone JL\***. Genome-metabolome integration for apple improvement. [Metabolomics Association of North America Annual Meeting](#), Virtual, September 14-16, 2020.
20. Pinho LS\*, Thomazini M, da Costa Rodriguez CE, **Cooperstone JL**, Campanella OH, Favaro-Trindade CS. Guarana peel is rich in carotenoids with antioxidant potential. American Chemical Society Fall Meeting, San Francisco, CA, August 16-20, 2020.
21. Sim L\*, Fenstemaker S, Bernal E, **Cooperstone JL**, Francis DM. [Purple fruit pigmentation in tomato is controlled by a gene on chromosome 10](#). The Ohio State University Plant Sciences Symposium, Virtual, July 23, 2020.
22. Sim L\*, Fenstemaker S, Bernal E, **Cooperstone JL**, Francis DM. [Purple fruit pigmentation in tomato is controlled by a gene on chromosome 10](#). The Ohio State University Spring Undergraduate Research Festival, Columbus, OH, April 14-21, 2020.
23. Goggans ML<sup>g\*</sup>, Dzakovich MP, Francis DM, Jacobi S, **Cooperstone JL**. Tomato steroidal glycoalkaloids are absorbed and metabolized. Ohio State University Russell Klein Nutrition Research Symposium, Columbus, OH, March 31, 2020.
  - Rescheduled due to COVID-19
24. Miller J<sup>g\*</sup>, Francis DM, **Cooperstone JL**. Identifying urinary biomarkers of tomato consumption using untargeted metabolomics. Ohio State University Russell Klein Nutrition Research Symposium, Columbus, OH, March 31, 2020.
  - Rescheduled due to COVID-19
25. Dzakovich MP<sup>g\*</sup>, Hartman JL<sup>g</sup>, Francis DM, **Cooperstone JL**. Exploring natural variation in tomato steroidal glycoalkaloids: using small tomatoes to answer big questions. Ohio State University Plant Sciences Symposium, Columbus, OH, March 27-28, 2020.
  - Rescheduled due to COVID-19
26. Miller J<sup>g\*</sup>, Francis DM, **Cooperstone JL**. Identifying urinary biomarkers of tomato consumption using untargeted metabolomics. Ohio State University Plant Sciences Symposium, Columbus, OH, March 27-28, 2020.
  - Rescheduled due to COVID-19
27. Goggans ML<sup>g\*</sup>, Dzakovich MP<sup>g</sup>, Francis DM, Jacobi SK, **Cooperstone JL**. Tomato steroidal glycoalkaloids are absorbed and metabolized in pigs. Ohio State University Plant Sciences Symposium, Columbus, OH, March 27-28, 2020.
  - Rescheduled due to COVID-19

28. Hartman JL<sup>\*g</sup>, Dzakovich MP<sup>g</sup>, Francis, D.M., **Cooperstone JL**. Are steroidal glycoalkaloids imparting bitterness in tomato? Ohio State University Plant Sciences Symposium, Columbus, OH, March 27-28, 2020.
  - Rescheduled due to COVID-19
29. Bilbrey EA<sup>\*g</sup>, Williamson K, Hatzakis E, Miller DD, Fresnedo-Ramirez J, Cooperstone JL. Linking genomics and metabolomics for nutrient-driven germplasm improvement in apples. Ohio State University Plant Sciences Symposium, Columbus, OH, March 27-28, 2020.
  - Rescheduled due to COVID-19
30. Miller J<sup>\*g</sup>, Francis DM, **Cooperstone JL**. Identifying urinary biomarkers of tomato consumption using untargeted metabolomics. Ohio Valley Institute of Food Technologists Poster Competition, Columbus, OH, March 4, 2020.
31. Dzakovich MP<sup>\*g</sup>, Hartman JL<sup>g</sup>, Francis, D.M., **Cooperstone JL**. Exploring natural variation in tomato steroidal glycoalkaloids: using small tomatoes to answer big questions. Ohio Valley Institute of Food Technologists Poster Competition, Columbus, OH, March 4, 2020.
32. Bilbrey EA<sup>\*g</sup>, Williamson K, Hatzakis E, Miller DD, Fresnedo-Ramirez J, Cooperstone JL. Linking genomics and metabolomics for nutrient-driven germplasm improvement in apples. Ohio Valley Institute of Food Technologists Poster Competition, Columbus, OH, March 4, 2020.
33. Goggans ML<sup>\*g</sup>, Dzakovich MP<sup>g</sup>, Francis DM, Jacobi SK, **Cooperstone JL**. Tomato steroidal glycoalkaloids are absorbed and metabolized in pigs. Ohio Valley Institute of Food Technologists Poster Competition, Columbus, OH, March 4, 2020.
34. Bilbrey EA<sup>\*g</sup>, Williamson K, Hatzakis E, Miller DD, Fresnedo-Ramirez J, Cooperstone JL. Linking genomics and metabolomics for nutrient-driven germplasm improvement in apples. The Ohio State University Hayes Graduate Research Forum, Columbus, OH, February 28, 2020.
35. Dzakovich MP<sup>\*g</sup>, Francis DM, **Cooperstone JL** From Bitter to Better: Exploring Variation in Tomato Steroidal Glycoalkaloids. The Ohio State University Hayes Graduate Research Forum, Columbus, OH, February 28, 2020.
36. Fenstermaker S<sup>\*</sup>, **Cooperstone JL**, Francis DM. Purple fruit pigmentation in *Solanum galapagense* accession LA1141 is associated with an allele of Aft. Tomato Breeders Roundtable Meeting and Tomato Disease Workshop, Clearwater, FL, November 17-21, 2019.
37. Teegarden MD<sup>g</sup>, Ahn-Jarvis JH, Knobloch TJ, Weghorst CM, Vodovotz Y, Schwartz SJ, **Cooperstone JL**<sup>\*</sup>. Elucidating urinary biomarkers of strawberry consumption using untargeted metabolomics. 1<sup>st</sup> Annual Metabolomics Association of North America Conference, Atlanta, GA, November 15-17, 2019.
38. Choueiry F, DiVincenzo M, Deems A, Torok M, Kulp SK, Carson WE, Hart PA, **Cooperstone JL**, Mace TA<sup>\*</sup>. [Soy-tomato Enriched Diet Reduces Inflammation and Disease Severity in a Pre-clinical Model of Chronic Pancreatitis](#). American Pancreatic Association Annual Meeting, Maui, HI, November 6-9, 2019.
39. Bilbrey EA<sup>\*g</sup>, Miller DD, Hatzakis E, Fresnedo-Ramirez, J, **Cooperstone JL**. Linking genomics and metabolomics for nutrition-driven germplasm improvement of apples. Horticulture and Crop Science Graduate Research Symposium, Columbus, OH, October 10-11, 2019. Oral presentation, M.S.
40. Dzakovich MD<sup>\*g</sup>, Hartman JL<sup>\*g</sup>, Francis DM, **Cooperstone JL**. Exploring natural variation in tomato steroidal glycoalkaloids: using small tomatoes to answer big questions. Horticulture and Crop Science Graduate Research Symposium, Columbus, OH, October 10-11, 2019. Oral presentation, Ph.D.
41. Hartman JL<sup>\*g</sup>, Dzakovich MP<sup>g</sup>, Francis DM, **Cooperstone JL**. Are steroidal glycoalkaloids imparting bitterness in tomato? Horticulture and Crop Science Graduate Research Symposium, Columbus, OH, October 10-11, 2019. Flash talk, Ph.D.
42. Goggans M<sup>\*g</sup>, Dzakovich MD<sup>g</sup>, Francis DM, Jacobi S, **Cooperstone JL**. Tomato steroidal glycoalkaloids are absorbed, metabolized and stored in pigs. 3<sup>rd</sup> Annual Ohio Mass Spectrometry and Metabolomic Symposium, Columbus, OH, October 1-2, 2019.

43. Miller J<sup>g</sup>, Francis DM, Harrison EH, Novotny JA, **Cooperstone JL**. Identifying Urinary Biomarkers of Tomato Consumption Using Untargeted Metabolomics. 3<sup>rd</sup> Annual Ohio Mass Spectrometry and Metabolomic Symposium, Columbus, OH, October 1-2, 2019.
44. Bilbrey EA<sup>g</sup>, Miller DD, Hatzakis E, Fresnedo-Ramirez, J, **Cooperstone JL**. Linking genomics and metabolomics for nutrition-driven germplasm improvement of apples. 3<sup>rd</sup> Annual Ohio Mass Spectrometry and Metabolomic Symposium, Columbus, OH, October 1-2, 2019.
45. Hartman JL<sup>g</sup>, Dzakovich MP<sup>g</sup>, Francis DM, **Cooperstone JL**. Are steroidal glycoalkaloids imparting bitterness in tomato? 3<sup>rd</sup> Annual Ohio Mass Spectrometry and Metabolomic Symposium, Columbus, OH, October 1-2, 2019.
46. Ryan N<sup>\*</sup>, Anderson K, Siddiqui A, Pero T, Celano A<sup>u</sup>, **Cooperstone JL**, Oghumu S. Assessment of the effects of black raspberry phytochemicals on the mechanisms of allergic contact dermatitis. 3<sup>rd</sup> Annual Ohio Mass Spectrometry and Metabolomic Symposium, Columbus, OH, October 1-2, 2019 (flash talk).
47. Dzakovich MP<sup>g</sup>, Lee T<sup>g</sup>, Goggans M<sup>g</sup>, Miller J<sup>g</sup>, Francis DM, **Cooperstone JL**<sup>\*</sup>. Tomato steroidal glycoalkaloids: potentially bioactive compounds with human health benefits? Solanaceae 2019, Jerusalem, Israel, September 15-19, 2019.
48. Fenstemaker S<sup>\*</sup>, Miller J<sup>g</sup>, **Cooperstone JL**, Francis DM. Using wild relatives as a source of traits through grafting: genetic distance, heritability and vigor. International Society for Horticultural Science II International Symposium on Vegetable Grafting, Charlotte, NC, July 14-18, 2019.
49. Teegarden MD<sup>g</sup>, Ahn-Jarvis JH, Knobloch TJ, Weghorst CM, Vodovotz Y, Schwartz SJ, **Cooperstone JL**<sup>\*</sup>. Elucidating markers of strawberry consumption in smokers and non-smokers using untargeted metabolomics. Metabolomics 2019, Annual Meeting of the Metabolomics Society, The Hague, Netherlands, June 23-27, 2019
50. DiMarco D, Bilbrey EA<sup>g</sup>, Cichon MJ, Fernandez M-L, **Cooperstone JL**<sup>\*</sup>. Impact of 3 eggs/day on the plasma lipidome of young, healthy adults. Nutrition 2019, Annual Meeting of the American Society for Nutrition, Lipid Metabolism and Health, Baltimore, MD, June 2-5, 2019.
51. Horn Montel A<sup>\*</sup>, Chatelaine H, **Cooperstone JL**, Kopec RE. Introducing undergraduate students to phytopigments and metabolomic techniques using analysis of clinical trial data comparing flavonoid-rich and flavonoid-poor diets. 2019 Project Kaleidoscope (PKAL) Ohio Regional Conference, Dayton, OH, May 18, 2019.
  - Ohio-PKAL's vision is to create a regional community of practice to promote and enhance learner-centered STEM (science, technology, engineering and mathematics) education through evidenced-based best practices, faculty development and community engagement and education.
52. Geraghty CM<sup>\*</sup>, Powell RT, Thomas-Ahner JM, **Cooperstone JL**, Schmidt NS, Young GS, Riedl KM, Francis DM, Schwartz SJ, Moran NE, Clinton SK. The impact of dietary tomato varieties on TRAMP mouse prostate transcriptomic signatures. 16<sup>th</sup> Annual Russell Klein Nutrition Research Symposium, Columbus, OH, April 18, 2019.
53. Dzakovich MP<sup>g\*</sup>, Lee T<sup>g</sup>, Francis DM, **Cooperstone JL**. From bitter to better: exploring variation in tomato glycoalkaloids. Ohio Valley Institute of Food Technologists Research Forum and Poster Competition, Columbus, OH, April 2, 2019.
  - Poster competition winner
54. Dzakovich MP<sup>g\*</sup>, Lee T<sup>g</sup>, Francis DM, **Cooperstone JL**. From bitter to better: exploring variation in tomato glycoalkaloids. 2<sup>nd</sup> Annual Plant Science Symposium. Columbus, OH, March 29-30, 2019.
55. Celano A<sup>u\*</sup>, Teegarden MD<sup>g</sup>, Ryan N, Oghumu S, **Cooperstone JL**. Designing and profiling black raspberry diets for assessing oral cancer chemoprevention. The Ohio State University Denman Undergraduate Research Forum, Columbus, OH, February 20, 2019.
56. **Cooperstone JL**<sup>\*</sup>, Hatzakis E<sup>\*</sup>, Kopec RE<sup>\*</sup>, Peterson DG<sup>\*</sup>. Edibilomics: Using Metabolomics in Food-Related Research, Institute of Food Technologists Annual Meeting, Chicago, IL, July 15-18, 2018.
57. Teegarden MD<sup>g</sup>, Knobloch TJ, Weghorst CM, Schwartz SJ, Peterson DG, **Cooperstone JL**<sup>\*</sup>. Understanding changes in the metabolome and bioactivity of black raspberries through thermal

- processing and storage. 14<sup>th</sup> Annual Conference of the Metabolomics Society, Seattle, WA, June 26-30, 2018.
58. Dzakovich MP<sup>9\*</sup>, Moran NE, Powell R, Thomas-Ahner JM, Clinton SK, Francis DM, **Cooperstone JL**. Hepatic Carotenoids and Apocarotenoids Differ in Response to Red and Tangerine Tomato Consumption. Gordon Research Conference on Carotenoids, Newry ME, June 17-22, 2018.
  59. Dzakovich MP<sup>9\*</sup>, Moran NE, Powell R, Thomas-Ahner JM, Clinton SK, Francis DM, **Cooperstone JL**. Hepatic Carotenoids and Apocarotenoids Differ in Response to Red and Tangerine Tomato Consumption. Gordon Research Seminar on Carotenoids, Newry ME, June 16-17, 2018. Selected talk.
  60. Kornegay R, Charoenmuang M, Knobloch N, Patil B, **Cooperstone JL**. Nexus of food and nutritional security, sustainability and hunger graduate course. North American College of Teachers of Agriculture Conference (NACTA), Ames, IA, June 12-15, 2018.
  61. Dzakovich MP<sup>9\*</sup>, **Cooperstone JL**, Francis DM. From bitter to better: exploring natural variation in potentially bioactive tomato glycoalkaloids. International Society for Horticultural Science, 13<sup>th</sup> World Processing Tomato Congress, Athens, Greece, June 11-15, 2018.
    - Winner, best poster presentation.
  62. Dzakovich MP<sup>9</sup>, Tober KA, Oberyszyn TM, Francis DM, **Cooperstone JL\***. Tomato glycoalkaloids: potential bioactive compounds conferring health benefits from tomato consumption. International Society for Horticultural Science, 13<sup>th</sup> World Processing Tomato Congress, Athens, Greece, June 11-15, 2018. Oral presentation.
  63. Teegarden MD<sup>9</sup>, Ahn-Jarvis JH, Knobloch TJ, Weghorst CM, Vodovotz Y, Schwartz SJ, **Cooperstone JL**. Elucidating markers of strawberry consumption in smokers and non-smokers using untargeted metabolomics. 15<sup>th</sup> Annual Russell Klein Nutrition Research Symposium, Columbus, OH, April 5, 2018.
    - Winner, oral presentation competition.
  64. Teegarden MD<sup>9</sup>, Schwartz SJ, **Cooperstone JL**. Profiling the impact of thermal processing on black raspberry phytochemicals using untargeted metabolomics. Ohio Valley Institute of Food Technologists Food Science Spring Research Forum, Columbus, OH, March 27, 2018.
  65. Dzakovich MP<sup>9</sup>, Riedl KM, Schwartz SJ, **Cooperstone JL**, Francis DM. Puree to peaks in 15 minutes: a rapid carotenoid extraction and UHPLC-PDA analysis workflow for tomato. Ohio Valley Institute of Food Technologists Food Science Spring Research Forum, Columbus, OH, March 27, 2018.
  66. Teegarden MD<sup>9</sup>, Knobloch TJ, Weghorst CM, **Cooperstone JL**, Peterson DG. Storage conditions affect the untargeted chemical profile and bioactivity of black raspberry nectar intended for use in clinical trials. American Chemical Society National Meeting, Agricultural and Food Chemistry Division, March 18-22, 2018. Oral presentation.
  67. Teegarden MD<sup>9</sup>, Knobloch TJ, Weghorst CM, **Cooperstone JL**, Peterson DG. Storage temperature affects the chemical profile and bioactive properties of black raspberry nectar. [Flavor Research Education Center Annual Meeting](#), Columbus, OH, October 2-3, 2017.
  68. Kerns AN, **Cooperstone JL**, McDonald J, Riedl KM, Curley Jr. RW, Bruno RS, Simons CT. Elucidating the absorption and metabolism of linalool to understand its potential health benefits. Institute of Food Technologists Annual Meeting and Food Expo, Las Vegas, NV, June 25-28, 2017.
  69. **Cooperstone JL\***, Francis DM, Schwartz SJ, Novotny JA, Harrison EH. Tomato juice consumption alters the human plasma metabolome. 13<sup>th</sup> International Conference of the Metabolomics Society, Brisbane, Australia, June 25-29. Oral presentation.
  70. Teegarden MD<sup>9</sup>, Cichon MJ, **Cooperstone JL**, Ahn-Jarvis JH, Knobloch TJ, Weghorst CM, Vodovotz Y, Schwartz SJ. Elucidating urinary markers of strawberry consumption in smokers and nonsmokers. [Inaugural Conference on Food and Nutritional Metabolomics and 14<sup>th</sup> Annual Ohio Mass Spectrometry Symposium](#), Columbus, OH, May 17-18, 2017. Oral presentation, Metabolomics.

71. Uhl K, Schwartz SJ, **Cooperstone JL**. Factors affecting plasma carotenoid stability during high performance liquid chromatography (HPLC) analysis. The Ohio State University Denman Undergraduate Research Forum, Columbus, OH, March 29, 2017.
72. **Cooperstone JL\***, Riedl KM, Cichon MJ, Francis DM, Curley Jr., RW, Schwartz SJ, Novotny JA, Harrison EH. Carotenoids and apo-carotenoids in human plasma after continued consumption of high  $\beta$ -carotene or high lycopene tomato juice. Experimental Biology, Chicago, IL, April 22-26, 2017.
73. Powell RT, Thomas-Ahner JM, **Cooperstone JL**, Geraghty C, Schmidt N, Young GS, Riedl KM, Schwartz SJ, Moran NE, Clinton SK. Influence on tomato variety of carotenoid accumulation and prostate cancer incidence in the TRAMP model. 14<sup>th</sup> Annual Russell Klein Nutrition Symposium, Columbus, OH, March 3, 2017.
74. Uhl K, Schwartz SJ, **Cooperstone JL**. Factors affecting plasma carotenoid stability during high performance liquid chromatography (HPLC) analysis. College of Food, Agricultural and Environmental Sciences Undergraduate Research Forum, Columbus, OH, February 28, 2017.
75. Dzakovich MP<sup>9</sup>, Gas-Pascual E, de Jesus S, **Cooperstone JL**, Riedl KM, Schwartz SJ, Francis DM. Alleles of *tangerine* differentially alter carotenoid profiles in tomato fruit. Plant & Animal Genome XXV, San Diego, CA, January 14-18, 2017.
76. Smith JW, Rowels JL III, Miller RJ, **Cooperstone JL**, Riedl KM, Schwartz SJ, Clinton SK, O'Brien WD Jr., Erdman JW Jr. Dietary tomato reduces castration-resistant prostate cancer progression in the transgenic adenocarcinoma of the mouse prostate (TRAMP) model. 25<sup>th</sup> Annual American Institute for Cancer Research Conference, North Bethesda, MD, November 14-16, 2016.
77. Powell RT, Thomas-Ahner JM, **Cooperstone JL**, Geraghty C, Schmidt N, Young GS, Riedl KM, Schwartz SJ, Morgan NE, Clinton SK. Influence on tomato variety of carotenoid accumulation and prostate cancer incidence in the TRAMP model. 25<sup>th</sup> Annual American Institute for Cancer Research Conference, North Bethesda, MD, November 14-16, 2016.
78. **Cooperstone JL\***, Teegarden MD<sup>9</sup>, Cichon MJ, Tober KA, Oberyszyn TM, Schwartz SJ. Metabolomics aids in discovery of putative bioactive compounds from tomatoes in a model of keratinocyte carcinoma of the skin. 12<sup>th</sup> Annual Conference of the Metabolomics Society, Dublin, Ireland, June 27-30, 2016.
79. Teegarden MD<sup>9</sup>, Cichon MJ, **Cooperstone JL**, Ahn-Jarvis JH, Weghorst CM, Vodovotz Y, Schwartz SJ. Strawberry consumption alters the urinary metabolome of smokers and nonsmokers 12<sup>th</sup> Annual Conference of the Metabolomics Society, Dublin, Ireland, June 27-30, 2016.
80. **Cooperstone JL\***, Riedl KM, Cichon MJ, Francis DM, Curley Jr RW, Novotny JA, Schwartz SJ, Harrison EH. Carotenoids and apo-carotenoids in human plasma after continued consumption of high  $\beta$ -carotene or high lycopene tomato juice. Gordon Carotenoid Research Conference/Seminar, Lucca, Italy, May 21-27, 2016.
81. **Cooperstone JL\***. Effects of food processing and formulation on carotenoid bioavailability and metabolism. International Processing Tomato Symposium, University of California, Davis, May 6, 2016.
82. **Cooperstone JL\***, Teegarden MD, Cichon MJ, Tober KA, Oberyszyn TM, Schwartz SJ. Using untargeted metabolomics to elucidate metabolic changes in murine skin following tomato consumption. The Ohio State University Comprehensive Cancer Center Annual Scientific Meeting, Columbus, OH, April 22, 2016.
83. **Cooperstone JL\***, Schwartz SJ, Clinton SK. [Tangerine tomato phytochemical bioavailability and metabolism in men with prostate cancer](#). The Ohio State University Comprehensive Cancer Center Grand Rounds, April 15, 2016. Video starts at 25 min.
84. **Cooperstone JL\***, Teegarden MD<sup>9</sup>, Cichon MJ, Tober KA, Oberyszyn TM, Schwartz SJ. Using untargeted metabolomics to elucidate metabolic changes in murine skin following tomato consumption. Experimental Biology, Energy and Macronutrient Metabolism: Metabolic Phenotyping, Metabolomics and Biomarkers, San Diego, CA, April 2-6, 2016.



85. Teegarden MD<sup>g</sup>, Cichon MJ, **Cooperstone JL**, Ahn-Jarvis JH, Weghorst CM, Vodovotz Y, Schwartz SJ. Untargeted profiling of the urinary metabolomes of smokers and nonsmokers after a strawberry intervention. Experimental Biology, Nutrient-Gene Interaction: Genomics, Proteomics and Metabolomics, San Diego, CA, April 2-6, 2016.
86. **Cooperstone JL\***, Teegarden MD<sup>g</sup>, Cichon MJ, Tober KA, Oberyshyn TM, Schwartz SJ. Using untargeted metabolomics to elucidate metabolic changes in murine skin following tomato consumption. 13<sup>th</sup> Annual Russell Klein Nutrition Research Symposium, Columbus, OH, March 3, 2016.
87. Westphal A, **Cooperstone JL**, Riedl KM, Kamat S, Balasubramaniam VW, Schwartz SJ, Boehm V. Influence of high pressure processing of broccoli sprouts on the bioactivation of glucosinolates to isothiocyanates, ID: 121. 53<sup>rd</sup> Congress of the German Nutrition Society, Fulda, Germany, March 3, 2016.
88. Kopec RE, **Cooperstone JL**, Goetz HG, Riedl KM, Francis DM, Schwartz SJ. Hass avocados enhance bioavailability and bioconversion of carotenoids from fruits and vegetables in humans. World Avocado Congress, Lima, Peru, September 13-18, 2015
89. Yan B, Martinez-Monteaagudo SI, **Cooperstone JL**, Riedl KM, Schwartz SJ, Balasubramaniam VW. Effect of high pressure homogenization on physiochemical and nutritional properties of tomato juice. Institute of Food Technologists Annual Meeting, Chicago, IL, July 11-14, 2015.
90. Riedl KM, **Cooperstone JL**, Durojaye B, Harrison EH, Curley Jr. RW, Schwartz SJ. An HPLC-MS/MS method for separating and measuring isobaric apocarotenoids in plant foods and carotenoid supplements. American Society for Mass Spectrometry, St. Louis, MO, May 31-June 4, 2015
91. Yan B, Martinez-Monteaagudo SI, **Cooperstone JL**, Riedl KM, Schwartz SJ, Balasubramaniam VM. Effect of high pressure homogenization on physiochemical and nutritional properties of tomato juice. Ohio Valley Institute of Food Technologists Supplier's Expo, Westchester, OH, April 30, 2015.
92. **Cooperstone, JL\***, Tober KA, Riedl KM, Riggenbach JA, Francis DM, Schwartz SJ, Oberyshyn TM. Tomato carotenoids protect against UV-induced cutaneous damage and tumor development in Skh-1 hairless mice. Ohio Agricultural Research and Development Center (OARDC) Annual Conference, Wooster, OH, April 16, 2015.
93. **Cooperstone, JL\***, Tober KA, Riedl KM, Riggenbach JA, Francis DM, Schwartz SJ, Oberyshyn TM. Tomato carotenoids protect against UV-induced cutaneous damage and tumor development in Skh-1 hairless mice. 12<sup>th</sup> Annual Russell Klein Nutrition Research Symposium, Columbus, OH, April 9, 2015.
94. **Cooperstone JL\***. Novel approaches to enhancing carotenoid absorption and metabolism. The Ohio State University Human Nutrition Seminar, February 20, 2015.
95. Gas-Pascual E, **Cooperstone JL**, De Jesus S, Riedl KM, Schwartz SJ, Francis DM. The genetic and metabolic changes associated with the *tangerine virescent* mutation in tomato. Plant & Animal Genome XXIII, San Diego, CA, January 10-14, 2015.
96. Orchard C, **Cooperstone JL**, Abud G, Gas-Pascual E, Schwartz SJ, Adrade MC, Francis DM. Breeding for nutritional traits in tomato using naturally occurring variation in the fruit specific beta-cyclase promotor. Plant & Animal Genome XXIII, San Diego, CA, January 10-14, 2015.
97. Obodai M, Dzomeku M, **Cooperstone JL**, Teegarden MD, Ralston RA, Schwartz SJ. Mushroom germplasm diversity in two forests in Ghana. 8<sup>th</sup> Annual Conference on Mushroom Biology and Mushroom Products, New Delhi, India, November 19-22, 2014.
98. Kopec RE, **Cooperstone JL\***, Schwartz SJ. Avocado consumption enhances human postprandial provitamin A absorption and conversion from a novel high-beta-carotene tomato sauce and from carrots. Hass Avocado Board Meeting, Houston, TX, October 21, 2014.
99. **Cooperstone JL\***, Riedl KM, Schwartz SJ. Characterization of carotenoids and their esters from yellow carrots (*Daucus carota* L.). Institute of Food Technologists Annual Meeting, Poster presentation, New Orleans, LA, June 21-24, 2014.

100. Koch JC, Riedl KM, **Cooperstone JL**, Schwartz SJ. Direct quantification of FruHis and other Amadori compounds in foods by HILIC HPLC-MS/MS. Institute of Food Technologists Annual Meeting, Poster presentation, New Orleans, LA, June 21-24, 2014.
101. **Cooperstone JL\***, Tober KA, Riedl KM, Riegenbach JA, Francis DM, Schwartz SJ, Oberyszyn TM. Tomato carotenoids protect against UV-induced cutaneous damage and tumor development in Skh-1 hairless mice. Experimental Biology Annual Meeting, Poster presentation, San Diego, CA, April 26-30, 2014.
102. Goetz HJ, Kopec RE, Riedl KM, **Cooperstone JL**, Narayanasamy S, Curley RW, Harrison EH, Schwartz SJ. Separation of  $\alpha$ -retinyl palmitate and quantification of vitamin A after consumption of carrots containing  $\alpha$ -carotene. Experimental Biology Annual Meeting, Poster presentation, San Diego, CA, April 26-30, 2014.
103. **Cooperstone JL\***, Ralston RA, Riedl KM, Francis DM, Lesinski GB, Clinton SK, Schwartz SJ. Increased lycopene bioavailability from a unique, *cis*-lycopene containing tangerine-type tomato. Ohio Agricultural Research and Development Center (OARDC) Annual Conference, Wooster, OH, April 24, 2014.
104. Gas-Pascual E, Sim S-C, **Cooperstone JL**, Grotewold E, Schwartz SJ, Francis DM. Engineered tomatoes for altered xanthophyll content in fruit. Ohio Agricultural Research and Development Center (OARDC) Annual Conference, Wooster, OH, April 24, 2014.
105. Orchard CJ, **Cooperstone JL**, Gas E, Schwartz SJ, Francis DM. Naturally occurring variation in the promoter of the fruit-specific CYC-B gene in tomato can be used modulate levels of  $\beta$ -carotene using marker-assisted backcross breeding. Ohio Agricultural Research and Development Center (OARDC) Annual Conference, Wooster, OH, April 24, 2014.
106. Gas-Pascual E, Sim S-C, **Cooperstone JL**, Grotewold E, Schwartz SJ, Francis DM. Engineered tomatoes for altered xanthophyll content in fruit. American Society of Plant Biologists Midwestern Section, Columbus, OH, March 22-23, 2014.
107. Goetz HJ, Kopec RE, Riedl KM, **Cooperstone JL**, Narayanasamy S, Curley RW, Harrison EH, Schwartz SJ. Separation of  $\alpha$ -retinyl palmitate and quantification of vitamin A after consumption of carrots containing  $\alpha$ -carotene. 11<sup>th</sup> Annual Russell Klein Nutrition Research Symposium, Columbus, OH, March 21 2014.
108. **Cooperstone JL\***. Increased lycopene bioavailability from a unique, *cis*-lycopene containing tangerine-type tomato. The Ohio State University Edward F. Hayes Graduate Research Forum, Food, Agriculture and Environmental Science, Oral presentation, Columbus, OH, February 21, 2014.
109. **Cooperstone JL\***, Ralston RA, Riedl KM, Francis DM, Lesinski GB, Clinton SK, Schwartz SJ. Increased lycopene bioavailability from a unique, *cis*-lycopene containing tangerine-type tomato. The Ohio State University's Food Innovation Center Collaborators Conference, Grove City, OH, February 14, 2014.
110. Kopec RE, **Cooperstone JL\***, Schweiggert RM, Riedl KM, Harrison EH, Francis DM, Clinton SK, Schwartz SJ. Enhancing human intestinal absorption of carotenoids and bioconversion of carotene to vitamin A in the presence of Hass avocados. Invited talk at the Sports Cardiovascular Nutrition and Wellness Dietetic Practice Group at the Food & Nutrition Conference & Expo, Houston, TX. October 21, 2013
111. **Cooperstone JL\***, Ralston RA, Riedl KM, Haufe TC, Francis DM, Lesinski GB, Clinton SK, Schwartz SJ. Enhanced bioavailability of lycopene from the tangerine variety of tomato juice compared to red tomato juice. Institute of Food Technologists (IFT) Annual Meeting, Chicago, IL, July 2013.
112. Schweiggert RM, Kopec RE, **Cooperstone JL**, Villalobos-Gutierrez MG, Hogel J, Young GS, Francis DM, Quesada S, Esquivel P, Schwartz SJ, Carle R. Enhanced bioavailability of carotenoids: the influence of chromoplast morphology, dietary lipid and thermal processing. Pigments in Foods VII Congress, Novara, Italy, June 18-21, 2013.
113. Pumilia G, Cichon MJ, **Cooperstone JL**, Schwartz SJ, Giuffrida D, Dugo G. Lutein, chlorophylls and chlorophyll degradation products in pistachio kernels (*Pistachia vera* L.) during roasting. Pigments in Foods VII Congress, Novara, Italy, June 18-21, 2013.

114. **Cooperstone JL\***, Ralston RA, Riedl KM, Haufe TC, Francis DM, Lesinski GB, Clinton SK, Schwartz SJ. Increased carotenoid bioavailability from a unique, *cis*-lycopene containing tangerine-type tomato. Experimental Biology Annual Meeting, Boston, MA, April 20, 2013.
115. **Cooperstone JL\***. Bioavailability of lycopene from red and tangerine tomatoes. Center for Advanced Functional Foods Research and Entrepreneurship (CAFFRE)/OSU Wexner Medical Center Molecular Carcinogenesis and Chemoprevention “Crops to the Clinic” Meeting, March 25, 2013.
116. Haufe TC, **Cooperstone JL**, Riedl KM, Schwartz SJ. Isolation of five carotenoids from tangerine tomatoes by preparatory HPLC-PDA for use as analytical standards. The Ohio State University’s College of Agriculture, Food and Environmental Sciences Undergraduate Research Forum, Columbus, OH, February 2013. 1<sup>st</sup> place winner for Food Science and Engineering.
117. Haufe TC, **Cooperstone JL**, Riedl KM, Schwartz SJ. Isolation of five carotenoids from tangerine tomatoes by preparatory HPLC-PDA for use as analytical standards. The Ohio State University’s Denman Undergraduate Research Forum, Columbus, OH, March 2013.
118. **Cooperstone JL\***, Schweiggert RM, Meulia T, Francis DM, Schwartz SJ. Ultrastructural characterization of chromoplasts from tomatoes with unique carotenoid profiles. Institute of Food Technologists (IFT) Annual Meeting, Las Vegas, NV, June 2012.
119. Kopec RE, **Cooperstone JL**, Schweiggert RM, Riedl KM, Harrison EH, Francis DM, Clinton SK, Schwartz SJ. Provitamin A absorption and conversion from a unique high beta-carotene tomato is higher when consumed with avocado. 9<sup>th</sup> Annual Russell Klein Nutrition Research Symposium, Columbus, OH, June 1, 2012.
120. Kopec RE, **Cooperstone JL**, Schweiggert RM, Riedl KM, Harrison EH, Francis DM, Clinton SK, Schwartz SJ. Provitamin A absorption and conversion from a unique high beta-carotene tomato is higher when consumed with avocado. Experimental Biology Annual Meeting, San Diego, CA, April 2012.
121. **Cooperstone JL\***, Francis DM, Schwartz SJ. Isomerization of carotenoids during processing of tangerine tomatoes. OSU Hayes Research Forum, Oral presentation, Columbus, OH, February 2012.
122. **Cooperstone JL\***, Francis DM, Schwartz SJ. The effects of thermal processing and fat concentration on isomerization of lycopene and lycopene precursors in tangerine tomato juice and sauce. Institute of Food Technologists (IFT) Annual Meeting, New Orleans, LA, June 2011.
123. **Cooperstone JL\***, Miller DD. Whipping Egg Whites in Copper Bowls, Culinary Myth or Scientific Truth?: The Effects of Copper (and other factors) on the Stability of Egg White Foams. 24<sup>th</sup> Annual Cornell University Undergraduate Research Forum. April 2009.

#### CONFERENCE AND SESSION CHAIRS:

- Discussion Leader, “Retinoids and Apocarotenoids,” [Gordon Research Conference on Carotenoids](#), Ventura, CA, January 8-13, 2023.
- Scientific Committee, Metabolomics Association of North America 2022 Annual Meeting, Edmonton, Alberta, Canada, September 16-18, 2022.
- Session Chair, “Quality build-up under the impact of the impact of pre- and post-harvest factors,” International Society for Horticulture Science, International Horticulture Congress 2022, Angers, France, August 16, 2022.
- Scientific Committee, International Society for Horticultural Science, “[Integrative approach for product quality in fruits and vegetables](#)” and 31<sup>st</sup> International Horticultural Congress, August 14-20, 2022, Angers, France
- Conference Co-Chair, [Metabolomics Association of North America Annual Meeting 2021](#), developed conference schedule, speakers, led scientific committee, workshops, and will execute conference. National meeting for metabolomics in North America. Virtual, October 18-21, 2021.
- Gordon Research Conference on Plant Metabolic Engineering, Castelldefels, Spain. [Power Hour](#), address the challenges women face in science and support the professional growth of

women in our communities by providing an open forum for discussion and mentoring, June 14, 2021.

- Postponed because of COVID to 2023.
- Metabolomics 2019, the Annual Meeting of the Metabolomics Society, The Hague, Netherlands. [Food Applications I](#), June 25, 2019.
- Nutrition 2019, the Annual Meeting of the American Society for Nutrition, Baltimore, MD. Carotenoids and Retinoids: From Mechanisms to Human Health, June 8, 2019.
- Gordon Research Conference on Carotenoids, Newry, Maine. [Power Hour](#), address the challenges women face in science and support the professional growth of women in our communities by providing an open forum for discussion and mentoring, June 18, 2018.
- [Gordon Research Seminar on Carotenoids](#): Carotenoids, Apocarotenoids and Retinoids: From Nature to Bedside, Newry, Maine. Co-Chair. June 16-17, 2018.

#### WEBINARS:

- **Cooperstone JL.** [Superfoods or Superfads: Making Sense of Nutrition Claims](#). Institute of Food Technologists Student Association Global Summit, Keynote Speaker, November 6, 2019
- **Cooperstone JL,** Reinagel M. [Food pairings for health benefits: how to maximize nutrient absorption](#). Academic of Nutrition and Dietetics, Sports Cardiovascular Nutrition and Wellness Dietetic Practice Group, Hass Avocado Board, September 15, 2015

#### STUDENT/TRAINEE ADVISING:

##### Ph.D. advisees:

Student	Department	Dissertation topic	Advising dates
Lydia Balogh	HCS	Improving nutritive quality of apple while maintaining fruit quality	8/2022 – present
Aaron Wiedemer	FST	TBD	8/2022 – present
Daniel Do	FST	Steroidal alkaloid absorption, metabolism, accumulation, and bioactivity	8/2021 – present
Cristian (Daniel) Quiroz Moreno	HCS	Multi-omic integration for crop improvement	1/2021-present
Maria Sholola	FST	Metabolism and bioactivity of tomato and soy phytochemicals	8/2020-present
Jordan Hartman	HCS	Determination of the cause of bitterness in high alkaloid tomatoes	5/2019-present
Zach Konkel	TPS (co-adviser, with Jason Slot)	Fungal specialized metabolites	8/2019-8/2023
Taekjun Lee	HCS	Using metabolomics to understand genetic and environmental variation in tomato	8/2018-8/2019
Michael Dzakovich	HCS	Understanding natural variation in secondary metabolites in tomato for contextualization of effects on human health	4/2016-8/2020
Matthew Teegarden	FST	Understanding the stability, biological impact, and exposure markers of black raspberries and strawberries using an untargeted metabolomics approach	4/2016-5/2018

##### M.S. advisees:

Student	Department	Thesis topic	Advising dates
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Emma Bilbrey	HCS	Linking apple genotype with phenotype	8/2018-8/2020
Mallory Goggans	FST	Tomato modulation of the gut microbiome	8/2018-8/2020
Jenna Miller	FST	Discovery of urinary biomarkers of tomato consumption	8/2018-8/2020

## Undergraduate students:

Student	Major	Notable achievements	Dates in the lab
Rachel Barrett	Food Science and Technology	CFAES Outstanding Senior 2023-2024	8/2023 - present
Avery Brewer	Sustainable Plant Systems	Research distinction, thesis title: Wounding inducibility of tomato steroidal alkaloids in fruit	8/2020 – 12/2022
Annalise Celano	Health Promotion, Nutrition and Exercise Science	President, Bwell (Buckeyes for Wellness), pre-med student. Presentation at Denman UG research forum	8/2017-5/2019

## Visiting scholars:

Student	Major/specialization	Program	Dates in the lab
Giovana Domeneghini Mercali, Ph.D.	Metabolomics	Visiting Professor. Federal University of Rio Grande do Sul, Porto Alegre, Brazil	2/2023 – 10/2023
Lara Etzbach	Food Technology	PhD student from the University of Bonn	9/2019-12/2019
Daphne Weikart	Food, Nutrition and Bioprocessing Science, North Carolina State University	B.S student, North Carolina State University Summer Research Opportunities Program (SROP)	06/2018-07/2018

## Ph.D dissertation committees:

## Active:

Student	Department	Adviser(s)	Advising dates
Ying Yang	FST	Chris Simons	2024 – present
Bishoy Abib	FST	Devin Peterson	2024 - present
Ruiya Bao	FST	Devin Peterson	2023 - present
Joshua Otugbeikwu	FST	Devin Peterson	2023 - present
Julia Ajello	HCS	David Francis	2023 - present
Niraj Panday	Chemistry	Abraham Badu-Taiwah	2023 - present

Santosh Acharya	Chemistry	Abraham Badu-Taiwah	2023 - present
Isabel Guggar	FST	Devin Peterson	2023 - present
Gabriella Gephart	FST	Ahmed Yousef	2023 – present
Chao Guo	OSUN	Chris Zhu	2023 – present
Cameron Jordan	FST	Luis Rodriguez	2023 - present
Haona Bao	FST	Luis Rodriguez	2022 - present
Madison Dahn	HCS	Eric Stockinger	2022 - present
Marziyeh Khavari	HCS	Jonathan Fresnedo Ramírez	2022 - present
Zengqiao Yang	FST	Jiyoung Lee	2022 – present
Andrew Gold	OSUN	Chris Zhu	2022 - present
Xinyue Fan	FST	Monica Giusti	2022 – present
Matthiew Haines	FST	Chris Simons	2022 - present
Shreya Nuguri	FST	Luis Rodriguez-Saona	2021-present
Ningyi (Irene) Wang	FST	Devin Peterson	2020-present
Shiqi Zhang	OSUN	Chris Zhu	2020-present
Thomas Reis	FST	Chris Simons	2020-present
Rui Xu	OSUN	Chris Zhu	2020-present
Megan Booth	FST	Devin Peterson	2019-present

## Completed:

Student	Department	Adviser(s)	Advising dates
Fan He	FST	Jiyoung Lee	2019-2023
Sean Fenstemaker	HCS	David Francis	2019-2021
Isabel Emanuel	Plant Pathology	Francesca Hand	2019-2023
Katie Williamson	FST	Emmanuel Hatzakis	2018-2021
Jenny Janovick	FST	Emmanuel Hatzakis	2018-2022
Kym Man	FST	Chris Simons	2018-2023
Siqiong (Rosalie) Zhong	OSUN	Rachel Kopec	2018-2023
Brianne Lin	FST	Chris Simons, Devin Peterson	2018-2022
Hao Lin, M.S.	FST	Devin Peterson	2018-2021
Yuehan Ai	FST	Jiyoung Lee	2018-2022

## M.S. committees:

## Active:

Student	Department	Adviser(s)	Advising dates
Daniel Hemphill	HCS	Jonathan Fresnedo Ramírez, Diane Miller	2022 – present

## Completed:

Student	Department	Adviser(s)	Advising dates
Daniel Hemphill	HCS	Jonathan Fresnedo Ramírez, Diane Miller	2022 – present
Sherry Bansal	FST	Matthias Klein	2021 – 2023
Lu Xun	FST	Monica Giusti	2021 – 2023
Allison Burg	FST	Chris Simons	2021 – 2023
Danielle Voss	FST	Monica Giusti	2019-2021
Kara Edwards	FST	Denny Heldman	2018-2020
Nicole Straathof	FST	Monica Giusti	2018-2020
Ariel Garsow	FST	Denny Heldman	2017-2019

## External dissertation committee member:

- Maryam Rashidzade, University of Massachusetts, Amherst. Adviser: Ana Caicedo.

#### External dissertation reviewer:

- Roland Schex, "Steering the color of *retro*-carotenoid rhodoxanthin by (*E/Z*)-isomeric ratios, controlled aggregation, and formulation technology. Hochschule Geisenheim University (Geisenheim, Germany), Advisor: Ralf Schweiggert, May 16, 2022.

#### TEACHING EXPERIENCE:

- HCS/FST/HN/BMI 7600: Metabolomics, Principles and Practice. Co-Instructor (50%). Springs 2019-2023
- FST 7620: Food and Nutritional Metabolomics. Instructor (100%). Springs 2019, 2021, 2023 session 1
- HCS 7806: Data Visualization. Instructor (100%). Fall 2020, 2022
- HCS/7830: Phytochemicals in Human Health: Crops to the Clinic. Co-Instructor (85%, with Joe Scheerens). Fall 2019, Instructor (100%) Fall 2021.
- Medical Dietetics (MD 6900) Nutritional Genomics: Guest Lecturer, 11/1/2019
- HCS 8830: Current Topics in Metabolomics. Instructor (100%). Fall 2018
- FST 7194: Nexus of Food and Nutrition, Hunger and Sustainability. Instructor (100%). Fall 2017.
  - A newly developed course resulting from the USDA Higher Education Challenge Grant to Texas A&M University (PI: Bhimu Patil), Ohio State and Purdue University, addressing important challenges for the future of food security and education in agriculture.
  - Course taught using the flipped classroom technique.
- FST 7830: Phytochemicals in Human Health: Crops to the Clinic. Lecturer. Tomato pigment variability and health. October 23, 2017.
- FST 7620: Food and Nutritional Toxicology. Co-Instructor. Fall 2015.
- FST 7830: Phytochemicals in Human Health: Crops to the Clinic. Lecturer. From the Crops to the Clinic: Tomatoes, Carotenoids and Health. November 30, 2015
- Texas A&M University, HORT 640: Phytochemicals in Fruits and Vegetables for Health. Guest lecturer. Carotenoids: Epidemiology, Bioavailability and Metabolism. Fall 2014, 2015 and 2016.

#### EXTRA-CURRICULAR TEACHING:

- Co-Organizer, [OSU Code Club](#), weekly meeting of students, staff, and faculty interested in improving their coding skills. Examples of my sessions include one on [dplyr](#), and another on [ggplot2](#). 2020-present.

#### WORKSHOPS:

- [Investigating plant associated microbes with multiple omics techniques](#), A crash course on metabolomics, Ohio State University, July 12-14, 2021.
- [International Symposium of Food Science and Technology](#), Federal University, Rio Grande do Sul, October 21-23, 2020. Virtual.
- CAPS Functional Genomics Workshop, Instructor (Metabolomics). May 30-June 14, 2020.
  - Postponed to Summer 2021 because of COVID-19
- Ohio Mass Spectrometry and Metabolomics Symposium, Metabolomics Workshop, Instructor. October 1, 2019.

#### GRANT REVIEWER:

- USDA NIFA Foundational Knowledge of Plant Products A1103 Research Grants, Autumn 2023
- USDA Foundational Knowledge of Plant Products A1103 Conference Grants, Summer 2022
- NSF STTR/SBIR Phase I Computational Biology and Food Safety, March 2022
- OSU Foods for Health Seed Grants, Spring 2021

TEACHING ASSISTANT EXPERIENCE:

- FST 5410: Fruit and Vegetable Processing. Teaching assistant, Fall 2014
  - Nominee for teaching assistant of the year
- FST 7620: Food and Nutritional Toxicology. Teaching assistant and guest lecturer, Fall 2013
- FST 7650: Food Flavors and Lipids. Teaching assistant, Spring 2013
- FST 830.12: Food and Nutritional Toxicology. Teaching assistant, Fall 2011
- FST 694: Phytochemicals in Fruits and Vegetables for Health. Teaching assistant, Fall 2011
- FST 601: Food Analysis. Teaching assistant, Fall 2010
- FST 401: Introduction to Food Processing. Teaching assistant, Winter 2010
- Cornell FDSC 1500: Food Choices and Issues. Teaching assistant, Springs 2007, 2008 & 2009
- Outstanding Undergraduate Teaching Assistant, Cornell University, Spring 2009

TRAINING PROGRAMS:PROFESSIONAL:

- [GRO Academy](#), Ohio State University, 2023. A research training program for mid-career faculty interested in research leadership
- [STARS Program Cohort](#), College of Food, Agricultural, and Environmental Science, 2021-2022
- [Culturally Responsive Mentoring](#), Ohio State University, 2021
- [Diversity and Implicit Bias Training Course](#), Open Doors, Ohio State University, Spring 2017.

TECHNICAL:

- Mass Profiler Professional Workshop, Metabolomics Data Processing and Analysis, Agilent Technologies, Wilmington, DE, February 2-5, 2015.
- Multivariate Data Analysis using SIMCA. Training by Umetrics. The Ohio State University, August 13-14, 2014.
- [John A. Milner Nutrition and Cancer Prevention Research Practicum](#) sponsored by the Nutritional Science Research Group, National Cancer Institute & the Department of Nutrition at the Clinical Center, National Institutes of Health. NCI Shady Grove, Rockville, MD, March 17-21, 2014

SELECTED GENERAL PRESS EXPOSURE:

- [How might tomatoes provide health benefits?](#)
- Tracing tomatoes health benefits to gut microbes.
  - [OSU News](#) and many others
- [Can your diet protect you from sunburns and skin cancer?](#) Women's Running, September 7, 2021
- Getting to the core of a more nutritious apple, various media outlets, September 2, 2021
  - [Ohio State News](#)
  - [ScienceDaily](#)
- [Highlight on Jessica Cooperstone](#), College of Food Agricultural and Environmental Science's Dean's Spring Event 2021.
- [A crumpled, dried-out relic of the pandemic. I returned to my office and found an apple that had somehow not rotted away.](#) The Atlantic, June 9, 2021.
- [Some edible insects beat orange juice and olive oil in antioxidant test.](#) Gizmodo, July 16, 2019.
- [Consumer Corner](#), Q&A with Dr. Jessica Cooperstone, ProduceGrower.com, Nov 2018.
- [Why broccoli sprouts might actually be a super food](#), Refinery29, May 2018.
- [You're eating your broccoli wrong and missing out on cancer-fighting benefits](#), Newsweek, September 2017.
- Eating tomatoes may protect against skin cancer, many media outlets, July 2017
  - [US News & World Report](#)
  - [NutraIngredients](#)



- [Huffington Post UK](#)
- [Readers Digest](#)
- [EurekAlert! \(AAAS\)](#)
- [WOSU Public Radio \(NPR\)](#)
- [American Institute for Cancer Research](#)
- [Men's Fitness](#)
- [WBZ CBS4 Boston \(video\)](#)
- [ScienceDaily](#)
- [Daily Mail UK](#)
- [NewsWise](#)
- [The Ohio State University](#) and [Ohio State College of Food, Agriculture and Environmental Sciences](#)
- [Heat, shape and type: increasing lycopene absorption](#), American Institute for Cancer Research, October 2015.
- [Tangerine tomatoes beat red variety for lycopene bioavailability](#), NutraIngredients, June 2015.
- [Garden Goodies to Grow for Good Health](#), US News & World Report. September 2014.
- [Avocado assists vitamin A absorption: study](#). NutraIngredients, July 2014.

JOURNAL REVIEWER:

- Agronomy Journal
- Analyst
- Analytical Chemistry
- Analytical Methods
- Antioxidants
- Critical Reviews in Food Science and Nutrition
- Food Research International
- Food Chemistry
- Food and Function
- HortScience
- Journal of Agricultural and Food Chemistry
- Journal of Chromatography B
- Journal of Food Science
- Metabolites
- Molecular Nutrition and Food Research
- Nature Biotechnology
- New Phytologist
- Nutrients
- Plant Biotechnology Journal
- PLoS One
- Scientific Reports

SERVICE (UNIVERSITY):

- Russel Klein Nutrition Symposium Poster Judge, April 2, 2024
- Leader, Center of Microbiome Science Proposal Development Cohort, 2022-2023
- Reviewer, University Fellowships, Spring 2023
- Reviewer, University Graduate Enrichment Fellowships, Spring 2022
- Reviewer, University Graduate Enrichment Fellowships, Spring 2021
- Judge, Hayes Graduate Research Forum, CFAES Oral Presentations, March 1, 2018
- Mental Health Faculty Network, Member, June 2019-present

SERVICE (GRAD FACULTY REP):

- Devleena Das, Biomedical Engineering, 08/15/2023

- Vincent Geels, Statistics, 4/12/2022
- Rebecca Dillon, Evolution, Ecology and Organismal Biology, 6/23/2020
- Jordon Wade, Environment and Natural Resources, 4/1/2019
- Juan M Piñeiro, Comparative and Veterinary Medicine, 4/12/2018

#### SERVICE (COLLEGE):

- Search Committee for Research Manager, North Central and Muck Crops Agricultural Research Station, 2023 – present
- Waterman Orchard Planning Committee, 2023 – present
- Committee for preparation of new HCS chair, 2020-2021
- Ohio Agricultural Research and Development Center Faculty and Krauss Awards Review Committee, 2019-2022
- Host of webinar on [Introduction to Supercomputing at the Ohio Supercomputing Center](#), April 15, 2020.
- Panelist, Effective Graduate Advising: Interacting With Your Advisee. Hosted by CFAES, Office for Research and Graduate Education. February 28, 2020.
  - Postponed
- CFAES Strategic Alignment Team, 2019

#### SERVICE (DEPARTMENT/HCS):

- Executive Advisory Committee (EAC) Member, 2022 – present
  - EAC Chair Elect 2022-2023 (elected)
  - EAC Chair 2023-2024
  - EAC Chair 2024-2025
- Mentoring Committee, Florence Sessoms
- Search Committee: Plant Metabolic Engineering/Synthetic Biology, 2022
- Faculty Adviser, HCS Graduate Student Association, 2018-present
- HCS Graduate Studies Committee, 2018-2020
  - Spearhead effort for re-writing of HCS Graduate Handbook, approved by faculty October 2020
- Information session to HCS undergraduates on the graduate school application process (with Andrea Gschwend)
  - 10/25/2023 (hybrid)
  - 10/19/2022 (hybrid)
  - 11/4/2021 (hybrid)
  - 10/19/2020 (virtual)
  - 10/21/2019
  - 11/5/2018
- Committee to get distilled water in Howlett Hall, 2018-2019
- Co-Adviser, iGEM, 2018-2019

#### SERVICE (DEPARTMENT/FST):

- Chair, FST Inclusion, Diversity, Equity and Advocacy (IDEA) Committee. Mission: Create and sustain a culture of inclusion and affirmation that supports the success of a diverse FST department, 2020-present  
Activities:
  - Picture a Scientist (a documentary about longstanding discrimination of women in science) screening and discussion, April 14, 2021.
  - Implicit Bias Training: May 4, 2021.
  - Unlearning Racism in Food Science – monthly meetings (beginning Fall 2021) for discussion about topics related to racism, equity, and justice
  - Multi-cultural lunch April 26, 2022

- FST Graduate Studies Committee, 2019-2022
- Co-Director, FST Summer Scholars Program 2020/2021 (cancelled due to COVID)
- Committee to get distilled water in Howlett Hall, 2018-2019

#### SERVICE (EXTERNAL):

- Scientific Committee, [Metabolomics Association of North America Annual Meeting 2022](#)
- Reviewer, Institute of Food Technologists Student Travel Grants for IFT 2022.
- Co-Chair, [Metabolomics Association of North America \(MANA\) Annual Meeting 2021](#)
  - Co-Chaired (i.e., planned and executed) virtual metabolomics conference with 445 registrants from 14 countries, 6 plenary talks, 36 oral presentations, 8 lightning talks, 7 interactive forums, 5 instructional workshops, 10 industry hosted sessions and 169 virtual conferences.
- American Society for Nutrition: 2010-present
  - Treasurer, Carotenoid and Retinoid Research Interest Group (CARIG), 2023-present
  - Past Chair, Carotenoid and Retinoid Research Interest Group (CARIG), 2022-2023
  - Chair, Carotenoid and Retinoid Research Interest Group (CARIG), 2020-2022
  - Chair Elect, Carotenoid and Retinoid Research Interest Group (CARIG), 2019-2020
  - Secretary for the Carotenoid and Retinoid Research Interest Group (CARIG), 2017-2019.
  - Postdoctoral representative for the Carotenoid and Retinoid Research Interest Group (CARIG), 2015-2017.
  - Student representative for the Carotenoid and Retinoid Research Interest Group (CARIG), 2013-14.
- [Gordon Research Seminar on Carotenoids](#): Co-Chair, 2016-2018.
  - Planning and agenda development of the Gordon Research Seminar and Conference on Carotenoids (Sunday River, Maine, June 15-22, 2018), in conjunction with chairs of the Gordon Research Conference
  - Leader of the Gordon Research Conference's PowerHour, an event promoting women in science.

#### SERVICE (OTHER):

- We Grow Scientists, an outreach event at Waterman Farms for kids, May 2023 (activities: cabbage magic and painting with pigments).
- COSI Science Festival, May 2022 (activities: cabbage magic and painting with pigments)
- Career Conversations with The Young Women's Leadership School of the Bronx, 5/5/2020
- Green STEM girls, Plant pigments activity with middle school girls, Franklin Park Conservatory, 10/29/2019
- COSI Farm Days, 8/14/2019
- COSI Farm Days, 8/9/2018

#### PROFESSIONAL SOCIETIES AND SERVICE:

- Institute of Food Technologists, including Ohio Valley IFT section: 2006-present
  - Member, Poster Enhancement Work Group, 2015-2016
  - Member, Young Professionals Work Group, 2015-2016
  - Member, Young Academics Work Group, 2015-2016
  - Member of IFTSA Board of Directors, Vice President of Competitions 2012-2013 and 2013-2014
- Phi Tau Sigma, 2008-present
  - President, Buckeye Chapter 2013-2016
  - Member of Program committee, 2013-2014
  - Member for Membership and Qualifications committee, 2011-2013
- American Society for Nutrition: 2010 – present
- American Chemical Society: 2011– present

- International Society for Horticultural Science: 2017– present
- Metabolomics Society: 2016-present
- Metabolomics Association of North America: 2019 – present

STUDENT LEADERSHIP EXPERIENCE:

- Institute of Food Technologists Student Association (IFTSA): Vice President of Competitions, 2012-2013/2013-2014
  - Member of the IFTSA Board of Directors.
  - Responsible for the oversight of all of the 8 IFTSA Competitions.
- OSU Food Science Club: President, 2010-2011
- OSU IFT College Bowl Team: Captain, 2009-2010 and 2010-2011
  - National Champions, 2011
- OSU Danisco Knowledge Award Product Development Team: Team leader, 2009-2010
- Cornell IFTSA/Mars Product Development Team: Team leader, 2008-2009