

## **Partial list of the Grants awarded (as the principal investigator and co-investigator)**

1. CucCAP II : Leveraging applied genomics to increase disease resistance in cucurbit crops. Award total: \$7,234,655 USDA-SCRI (Co-PI)
2. Integrating Data Science with Speed Breeding for Gummy Stem Blight Resistance in Watermelon and Nurturing Next Generation Minority Scientists. USDA-NIFA Proposal Number: 2019-03337 Award total: \$600,000
3. Multi-Scale Integrative Approach to Digital Health: Collaborative Research and Education in Smart Health in West Virginia and Arkansas: NSF-RII Track 2FEC \$1,999,999.00 (Co-PI)
4. Phenotyping A Diversity Panel For Exploring Natural Variation Within Nutraceutically Important Metabolites For Use In Watermelon Breeding. Proposal No: 2017-07557. Award total: \$499,876
5. Strengthening vegetable improvement center with genomic selection tools for nutraceuticals and fruit quality. USDA-NIFA proposal no: 2016-06616; Award total: \$597,406
6. Department of Defense award for STEM instrumentation - \$500,000. Proposal No. 68876-RT-REP: Enhancing Genome Mapping Infrastructure for Vegetable Crop Improvement.
7. CucCAP: Leveraging applied genomics to increase disease resistance in cucurbit crops. Award total: \$6,515,655 USDA-SCRI (Co-PI)
8. Exploration into Drosophila GWAS panel to understand health benefits of various pepper types. MURC#:2013-283/219035 CFDA No. 93.859. Award total: \$80,000
9. Mapping Transcriptome of Arabidopsis towards Phytoremediation of Benzene, Toluene, Ethylbenzene, Xylene (BTEX), the Major Petroleum Hydrocarbon Pollutants in West Virginia. BTEX Agreement\_AGM096\_EPWR. WVDEP. Award total: \$52,000
10. Genetic Improvement of Pepper and Tomato Quality and Disease Resistance through Genetics and Genomics. Award total: \$75,000 USDA-ARS 8042-21000-274-00D
11. Speed Breeding for Introgression and Fine Mapping of Diverse Alleles of Pepper Fruit Size, Shape, Flavor and Color. USDA-NIFA Proposal NO: 2018-04969 Award total: \$299,739
12. Harnessing Whole Genome Sequence of Pepper for Association Mapping of Novel Fruit Quality Phenotypes with Enhanced Phytonutrients. USDA-NIFA Proposal NO: 2016-06614. Award total: \$296,942
13. CUCCAP: LEVERAGING APPLIED GENOMICS TO INCREASE DISEASE RESISTANCE IN CUCURBIT CROPS. (01 SEP 2015 - 31 AUG 2019) \$6,515,655 (Research grant; as Co-PI). USDA-NIFA Proposal no. 2015-09260.
14. An integrated approach of genomics and metabolomics for incorporation of whitefly resistance in cultivated watermelon (01 SEP 2015 - 31 AUG 2018), USDA-NIFA Proposal no. 2015-05304. Award total: \$299,042.
15. Phenomics for crop improvement: tools to create next generation plant breeders (01 SEP 2015 - AUG 2018), USDA-NIFA Proposal no. 2015-06226. Award total: \$299,940.
16. USDA-NIFA Proposal no. 2013-04053. Summer academy of plant breeding: A platform to develop minority workforce in molecular plant breeding (01 SEP 2013 - 31 AUG 2016), Award total: \$120,000.

17. USDA-NIFA Proposal no. 2013-03685. Diversifying the watermelon cultivar genetic base using genomic selection to improve nutraceutical traits and use them as parental lines (01 SEP 2013 - 31 AUG 2016), Award total: \$444,346 .
18. Exploring Melon Genetic Diversity to Breed Novel Morphotypes for Dissemination into Small Farms through a Participatory Selection Approach. PROPOSAL NO: 2012-02511. Award total: \$498,645
19. Genome-wide association mapping for improving nutraceutical traits in pumpkin and squash (01 SEP 2012 -31 AUG 2016), USDA-NIFA Proposal no. 2012-02508. Award total: \$299,832.
20. Summer Academy of Plant Breeding: A Platform to Develop Minority Workforce in Molecular Plant Breeding. PROPOSAL NO: 2013-04053. Award total: \$120,000
21. Engaging students in global genomic research through CGIAR visits and independent next-generation sequencing projects (01 SEP 2012 - 31 AUG 2015), USDA-NIFA Proposal no. 2012-02617. Award total: \$299,811
22. Application of Genomic Technologies for Appalachian Mine Soil Reclamation. USDA-NIFA PROPOSAL NO: 2012-02496. Award total: \$242,954
23. Genome-Wide Association Mapping for Improving Nutraceutical Traits in Pumpkin and Squash. USDA-NIFA PROPOSAL NO: 2012-02508. Award total: \$299,832
24. Biotechnology and Crop Biodiversity as Recruiting Tools: Linking High School Science with Ongoing Research. USDA-NIFA Proposal No: 2012-02584 Award total: \$149,583
25. Development Of Value Added Peppers Using Genomic Driven Association Mapping. USDA-NIFA PROPOSAL NO: 2010-02419. Award total: \$299,937
26. Stories of crop evolution, biodiversity and domestication and methods of genomic assisted crop improvement for curricula development (01 SEP 2010 - 31 AUG 2014), USDA-NIFA Proposal no. 2010-02247. Award total: \$299,986
27. Syntenic analysis of cucurbit cultivar complex for widening genetic diversity and functional genomics of fruit quality and architecture USDA-NIFA Proposal no. 2007-03466. (01 SEP 2007 - 31 AUG 2011), Award total: \$499,762
28. Physical mapping and eco-tilling for high-throughput allele mining of disease resistant and nutraceutical genes for pyramiding in sweet potato (15 SEP 2005 - 31 AUG 2010), USDA-NIFA Proposal no. 2005-03605. Award total: \$499,960
29. Understanding the simplicity of DNA sequence and jugglery of gene mapping: a new paradigm for biology education (01 SEP 2004 - 31 AUG 2008), USDA-NIFA Proposal no. 2004-02467. Award total: \$198,695.
30. BAC to genes: "Upgrading the genome core facility with robotics for use in integrating genomic research and education" (01 SEP 2007 - 31 AUG 2011), USDA-NIFA Proposal no. 2007-03349. Award total: \$199,936
31. Use of functional genomics for pyramiding favorable allele combinations for enhancing the technology to produce seedless watermelon (01 SEP 2004 - 31 AUG 2009), USDA-NIFA Proposal no. 2004-02563. Award total: \$285,925
32. Utilization of genomics for molecular breeding of high quality and disease resistant peppers (01 SEP 2003 - 31 AUG 2008), USDA-NIFA Proposal no. 2003-03965. Award total: \$299,647