

### 31 Supervised Student Thesis/Research Projects

1.	Identification of genes for ailanthone allelopathy in tree of heaven ( <i>Ailanthus altissima</i> )	Chantz Hopman	Current
2.	Transcriptome analysis for BTEX compounds in Arabidopsis	Armando Pachaco	Current
3.	Gut microbiome for capsaicin and capsiate in Drosophila	Garret Crummet	Current
4.	Characterizing knockout mutants and overexpression of GWAS mined genes in Arabidopsis	Arjun Ojha	Fall 2020
5.	Genetic analysis of fruit shape in hot peppers	Bhagarathi Sahi	Fall 2020
6.	Differential methylation regions among isogenic tetraploid and diploid watermelon using bisulfite sequencing	Marleny Garcia	Summer 2020
7.	Mapping genes for low PH conditions using Arabidopsis as model	Menuka Bhandari	Summer 2020
8.	GWAS for seedling root variation in arsenic conditions for mining genes for arsenic tolerance	Yadira Peña-Garcia	Spring 2020
9.	Metabolomics and Transcriptomics analysis of Leaf and fruit cutin in Peppers	Tolulope Akinmoju	Fall 2019
10.	GWAS for seedling root variation in acidic conditions across the pepper species complexes	Tosin Akinspe	Fall 2019
11.	Genome-wide effects of body weight and triglycerides for dietary responses of various <i>capsicum</i> species on <i>Drosophila melanogaster</i>	Nirwan Tandukar	Spring 2019
12.	A survey of <i>Drosophila melanogaster</i> gut microbiome diversity in response to dietary treatments of various pepper species	Joshua Haynes	Spring 2019
13.	Estimation of antioxidant compounds from world collection of peppers ( <i>Capsicum baccatum</i> L.)	Marjan Nadimi	Spring 2018
14.	Functional validation of GWAS hits for trichome density and length using knockout mutants in Arabidopsis	Dimple Sharma	Fall 2017
15.	Mining Candidate Genes Specific to Acid Coal-Mine Water Toxicity by Genome-wide Association Study	Bandana Ghimire	Fall 2017
16.	Genome-wide Identification and Characterization of Ankyrin Gene Family and Other genes involved in Capsaicin content and Fruit Weight in Pepper	Lav Kumar Yadav	Spring 2017

17.	Comparative fruit color analysis for <i>Capsicum spp.</i> using Genome-wide Microsatellites	Krittika Tonapi	Spring 2016
18.	Diversity analysis and association mapping of fruit colors in <i>Capsicum annuum</i>	Ms. Brittany Davenport	Summer 2015
19.	Genetic analysis of trichome length and density in watermelon	Mr. Abiodun Bodunrin	Spring 2015
20.	Small RNA regulation in response to drought and high co2 concentrations in sweet potato <i>Ipomoea batatas</i> (L.) lam. variety Beauregard	Alejandra G. Alvarado Rodríguez	Summer 2014
21.	Genetic analysis of capsaicin biosynthetic pathway	Aldo Ricardo Almeida Robles	Summer 2013
22.	Analysis of genome diversity in watermelon and association mapping for fruit traits	Lavanya Abburi	Spring 2013
23.	Linkage disequilibrium and population structure analysis among <i>Capsicum annuum</i> L. cultivars for use in association mapping	Venkata Lakshmi Abburi	Spring 2013
24.	Differential expression of mi-RNA across the grafted tissues collected from heterografts involving different genera of Cucurbitaceae family	Hugh Lee Dalton	Summer 2012
25.	Cytogenetic characterization of important genes using BAC-FISH and building a genetic map of <i>Citrullus lanatus</i> Var. <i>lanatus</i>	Abhishek Bhandari	Fall 2012
26.	Identification of differential miRNA-Guided Gene regulations between isogenic diploid and tetraploid watermelon lines	Jonica Thompson	Spring 2012
27.	Cytomolecular characterization of rDNA distribution & copy number variation among various <i>Citrullus</i> species	Nischit Aryal	Spring 2011
28.	Use of DNA methylation profiles of US Watermelon Heirloom Genetic Diversity	Renee Gist	Summer 2009
29.	Dynamics of genetic diversity in cotton as revealed by the methylation profiles	Venkatagopianth Vajja	Summer 2008
30.	Mapping quantitative trait loci in tetraploid watermelon	Mohammad Atikur Rahman	Fall 2008
31.	Co-Localization of fruit yield related Quantitative Trait Loci (QTL) to understand domestication footprints in cultivated <i>Capsicum</i> complexes	Srinivasa Rao Asturi	Fall 2007
32.	A First linkage map of <i>Sesamum Indicum</i> using AFLP and SSR markers	Jooha Jeong	Spring 2007