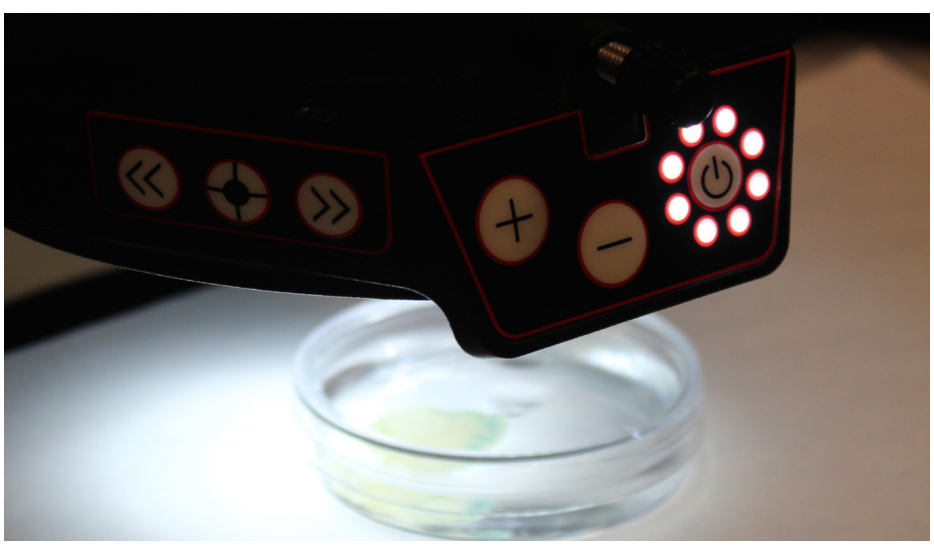
ALUMNI SPOTLIGHT

DR. LEAH MCHALE

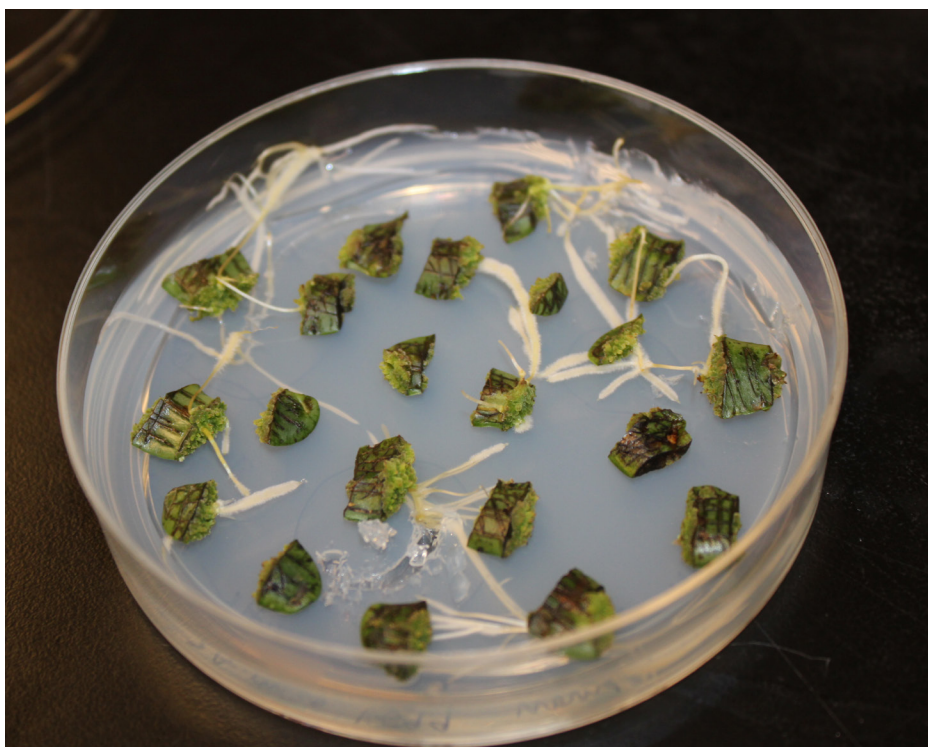
I worked in the laboratory of Dr. Richard Michelmore on the genetic architecture of disease resistance in lettuce and received a Ph.D. in Plant Biology from UC Davis in 2008. In my research I was able to examine the genetic organization of resistance in lettuce and identify the functional or candidate genes for resistance loci. I started my graduate work in 2001 and during my almost seven years as a student at UC Davis I had the opportunity to observe and even take advantage of some great changes in how we practice plant science.

The Michelmore lab moved to the Genome Center in 2005, to a shared lab space with the DNA Technologies core facility. At this time, high throughput genotyping and next generation sequencing, tools that are now considered requisite for many plant genetics programs, were new and just starting to influence the fields of plant breeding and genetics.



Our proximity to the core facility gave me first-hand exposure to the variety of ways research programs were leveraging these new technologies and allowed me to put them to good use in my own research. I was also fully engaged in the lettuce breeding program and was able to utilize the genotyping and sequencing technologies afforded by the Genome Center to facilitate the lettuce breeding program.

I heard about my current position as an Assistant Professor in Soybean Breeding and Genetics at The Ohio State University through another UC Davis and Michelmore lab alumnus, Dr. David Francis. When I was hired in 2009, I think that my experience using new genomic technologies for applied plant breeding was uncommon and helped me to stand out from other candidates. My current research program focuses on the genetic dissection and cultivar improvement of soybean seed quality traits and quantitative disease resistance. Over the past five years I have enjoyed the challenges of applying advanced genomic technologies to my soybean breeding program in new ways, as well as contributing to training of the next generation of plant breeders.



With the large number of faculty working in plant science at UC Davis and the nearby seed companies, there is a wealth of resources available to UC Davis students interested in plant breeding. My advice to incoming or current students at UC Davis would be to take advantage of all that UC Davis affords you - this includes not only the facilities and technologies available to you, but also the people you'll interact with who may serve as mentors, network connections, or lifelong friends.

UC DAVIS NEWS

RETHINKING GMO REGULATION
HOWARD HUGHES MEDICAL INSTITUTE
interview by Nicole Kresge

In the United States, as in most countries, genetically modified crops are heavily regulated at every stage of their development - from research through marketing. While oversight is valuable, too much can be detrimental, believes HHMI-GBMF Investigator Jorge Dubcovsky. He explains why our current approach to transgenic regulation may not be in society's best interest.

Why are people afraid of GMOs?

People don't know what GMOs, genetically modified organisms, are. They just know somebody is messing with their food and worry whether that person has good or bad intentions. Though fear is sometimes irrational, it's valid to fear what you don't know - we need to respect that feeling.

>>>read more

UC DAVIS SEEKS PRACTICAL SOLUTIONS FOR WATER NEEDS
CALIFORNIA FARM BUREAU FEDERATION
by Dean Helene Dillard

"Our breeders are developing new varieties of food and fiber that can thrive in dry, saline conditions. Department of Plant Sciences Professor Eduardo Blumwald is working to develop rice varieties that don't shut down in drought conditions, but rather continue to produce the nutrients necessary to make rice grains.

Plant Sciences Professors Jorge Dubcovsky and Jan Dvorak are mapping, isolating and cloning genes from the massive wheat genome, investigating critical stages of development. Dubcovsky's lab recently identified a region of a rye chromosome that, when introduced into wheat, increases yield and improves the water status of the plant under limited irrigation. Dvorak's lab is working to develop a novel, salt-tolerant forage crop that could be irrigated with poor-quality drainage water.

Viticulture and Enology Professor Andy Walker is breeding drought- and salt-tolerant grape rootstocks by optimizing root architecture to improve water-use efficiency.

>>>read more

OPPORTUNITIES AND EVENTS

PLANT GENOME RESEARCH PROGRAM (PGRP)
FY 2015 COMPETITION
NATIONAL SCIENCE FOUNDATION

DEADLINE: May 27th, 2015

Find more details **here**.

2015 Annual UC Davis Plant Breeding Symposium
April 10th, 2015
Student Community Center

The 2015 UC Davis Plant Breeding Symposium - "Challenges in Plant Breeding: Past, Present, and Future" - will be held April 10th in the Student Community Center. The symposium is sponsored by DuPont Pioneer. A networking opportunity sponsored by Sierra Nevada and Sundstrom Hill Winery will be held after the symposium for registered attendees. Registration is free and includes lunch.

Register **here**.

THIRD THURSDAY
3:30-6:00PM, MARCH 19TH, 2015
WOLFSKILL EXPERIMENTAL ORCHARDS
4334 PUTAH CREEK RD,
WINTERS, CA

Wolfskill is in bloom! This week, Professor Tom Gradziel gave me an introduction to cross-pollinating and emasculating almond and peach trees. You can find more pictures on the PBC **Twitter** and **FB** pages. He will be leading our
Third Thursday seminar at the orchards. If you intend on taking a vanpool, **you must register** to ensure we have enough space. Others who find their own transportation need not register.

Register for vanpool **here**.

POSTDOCTORAL RESEARCH SYMPOSIUM
MAY 14TH 2015
MEMORIAL UNION, UC DAVIS

DEADLINE: abstract submission, March 27th, 2015

The entire campus community is welcome to attend for free. Lunch provided for registered participants.

Register **here**.

If you'd like information featured in the newsletter, or would like to be added to the mailing list, send an email to:

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