



How To: BREW BEER at Innovation Brew Works

One of the most popular beers at Innovation Brew Works is the Dr. Ortiz Orange Belgian Style Witbier, which uses Cal Poly Pomona-grown citrus. The beginnings of the witbier start with brewmaster Eric Bassett calling farm manager Dave Matias for an order of fresh oranges.

1. PREPARE

Zest oranges from Cal Poly Pomona's Spadra Farm to add sweetness and aroma to the beer. Add coriander and chamomile to achieve desired aroma, spice and lace to style.

2. BREW

Combine Premium Pilsner, malted barley, wheat, flaked wheat, rolled oats, zest, dried sweet orange peel, coriander seed and Egyptian chamomile. The spent grain is fed to Cal Poly Pomona sheep and cattle.

3. FERMENT AND CONDITION

Ferment the brew at 21 degrees Celsius for two days, increase to 23 degrees Celsius for five days and condition at 1 degree Celsius for a week. The higher carbon dioxide levels bring out the witbier's effervescence and aroma.

4. PACKAGE

Keg and bottle the beer in the brewery to enjoy at Brew Works and at local restaurants, bars and hotels.

B R O N C O S A T W O R K

Ana Ramirez

'07, animal science
'19, master's in biological sciences



Mario Escobar

'19, plant science



Tell us about your career.

For eight years I worked at Southern California Veterinary Specialty Hospital-Blue Pearl. In my last years there, I was the weekend emergency supervisor, while completing graduate school. In August, I started veterinary school at WesternU. I have two publications in pharmaceutical development in veterinary medicine.

What was it like being a college student and a parent?

It takes grit, but with support from my husband, parents and mentors, it was doable. This support system was key to my success.

Why is it important you set this example for your children?

My mom came from El Salvador to save us from poverty and civil war. She started as a janitor at a convalescent hospital and worked her way up to director of nurses. I saw her fall asleep on her books. Setting an example is the best way to show my son that a higher education is important and that we do not quit.

How do you think your parent perspective contributed to your education?

Being a parent while in school forces you to multi-task, and it pushes you to your limits. Instead of being tedious, my time at Cal Poly Pomona became second nature because I knew that reaching for higher education is setting an example for my children and will eventually give us a better life.

Favorite memory at CPP?

When I worked at the Cesar E. Chavez Center for Higher Education, I coordinated the Dia De Los Muertos celebration. Now I come back and make it a family event. It is so special because it instills the tradition in the kids so that they do not forget their culture. It also reminds us to celebrate our lives and remember those who have passed on.

Tell us about your career.

I am a farm manager trainee at Sunview Vineyards in Delano. We specialize in growing table grapes. I assist in crop evaluation, pest management, irrigation and supervising farm work.

What was it like being a college student and a parent?

It was the hardest three years of my life. I juggled school, two jobs, raising my son and family.

Why is it important you set this example for your children?

My son would ask why I was around plants and books. I explained that I had to learn some new things to get a better job, so I could give him mac and cheese (his favorite food). By connecting what was important to him, I taught my son that getting an education would give us a better life and the things we needed.

How do you think your parent perspective contributed to your education?

If I did not have my family looking up to me, I would not have had the motivation I needed to get through school. With everything I did, I imagined my son sitting next to me, and I performed the way I would want him to see me. I pushed through for them, because I could not tell my family I wanted to give up.

Favorite memory at CPP?

I took my son to Spadra Farm and showed him where oranges come from. We harvested citrus from the trees, and he did not mind the leaves and dirt on his face that would normally bother him. This experience boosted his confidence, and he has a new interest in growing his own fruit at home. All it took was sharing my passion.

That's SOCAL POLY



A Brief History

LYLE CENTER FOR REGENERATIVE STUDIES

The idea for the Center for Regenerative Studies grew out of an assignment that Professor John T. Lyle gave his landscape architecture graduate students in 1976. His students imagined a community based on the value of sustainability. Twenty-five years after opening its doors, the Lyle Center serves as a living laboratory dedicated to interdisciplinary teaching and research related to the development of sustainable systems.

1994

The 16-acre center opens and welcomes 20 resident-students

1999

The center is renamed the John T. Lyle Center for Regenerative Studies

1996

The center joins the College of Environmental Design

2004

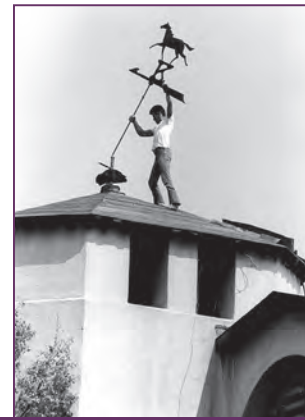
The first cohort of regenerative studies graduate students begins the program

1997

The facility is among the inaugural group of Top 10 winners of the American Institute of Architects Committee on the Environment, the nation's most important award in sustainable architecture

2010

The Lyle Center becomes the first carbon-neutral facility in the CSU after the installation of two solar panels supplied by Amonix



University Plaza

University Plaza started as a famous Southern California landmark that housed W.K. Kellogg's prized Arabian horses. Completed in 1926, they were described as "mansion stables" by a Pomona Bulletin writer because of the incorporation of every modern convenience known to keeping horses. While the building now houses the Office of Student Life, its arches, tower and weathervane continue to serve as campus landmarks associated with the Kellogg heritage.



\$80,198

Cost to build the stables in 1926

2

All-gender bathrooms

30

Box stalls

By the Numbers

60

Arabian horses purchased by Kellogg before the stables opened

15

Staff members who work in University Plaza

24

Arches

Zika, West Nile, Mosquitos, Oh My!

Over the last few years, there has been an increase in new mosquito-borne viruses. **Douglas Durrant**, professor of biological sciences, is working to understand how immune responses to those types of viruses are regulated within the central nervous system.

WHAT IS YOUR RESEARCH FOCUS?

Zika, West Nile and Eastern Equine viruses are all neurotropic, meaning that they preferentially infect neurons. My work is on the immunology side. We're trying to understand how the immune system responds to the viral infection and how the immune system is able to clear the virus with the least amount of damage.



WHAT ARE YOU DOING IN THE LAB?

The brain is fascinating. Its immune response to an invading pathogen is different than the immune response in the rest of the body. We're looking at infected brain tissue samples and comparing samples where we've eliminated a specific type of immune cell to normal samples. We want to know how much virus is there, what type of immune cells are involved, the number of immune cells, their activity level and whether they are providing protection or causing more damage. Our key question is what is causing the neurons to die. Is it the viral infection itself or is it the immune response to the viral infection, or is it a mixture of both? We are particularly interested in the role of dendritic cells in regulating this delicate balance between viral clearance and neuronal protection within the brain.

If we can figure out which cells are controlling the immune response so that it effectively kills the virus while simultaneously protects the neurons, then that information could lead to the development of treatments or therapeutics to harness that or to mimic that ability.

SHOULD WE WORRY ABOUT MOSQUITO-BORNE VIRUSES?

As we are moving more into the Amazon and as temperatures rise due to climate change, mosquito-borne viruses in humans will become more prevalent. There are many mosquito-borne viruses that humans haven't really come into contact with before.

However, our immune system is incredibly effective at keeping these emerging diseases under control. Even though a population might come into contact with a new viral infection, that population will eventually gain immunity.

