

MIND MATTERS

Neurobiology partnership with UCLA leads to new club

By **Brandon Normand**
Assistant Editor

Harvard University, Stanford University and Johns Hopkins University, along with 13 other universities, come together to form the list of the top 15 medical research schools in the world. However, with the acceptance rates of these prestigious universities plummeting every year, the chance of students getting the opportunity to be mentored by the professors of these universities, let alone even use the university's research equipment, is becoming harder every year.

Campbell Hall has recently formed a partnership with professor Mark Frye, PhD at one of these universities, University of California Los Angeles (UCLA), and has been guaranteed both mentorship and access to research equipment for students on our campus. The partnership is due to the collaborative effort of former Campbell Hall student and neuroethologist, Dr. Sara Wasserman, and Campbell Hall student Elliott Layne (17).

Layne participated in research at UCLA over the summer with Wasserman. The research involved analysis of the behavior of fruit flies (also known as *Drosophila melanogaster*) when subjected to insufficient supplies of food and water. The flies experimented with were restrained in a magnetic field to ensure they would not escape.

"I had such an amazing and different experience conducting this research and I think that working in a lab and performing research is something that not many people have the opportunity to do," Layne said. "It's an experience I definitely won't forget."

Wasserman noted Layne's curiosity, as she later shared her vision of bringing the university-level research experience to high school students through a partnership.

"I've had this idea for a couple years, where we would partner a university lab with two high schools, one being independent (like Campbell Hall), and another being a public or charter school," Wasserman said. "Both high schools would support the research of the university lab. I thought it would be really interesting for students from various backgrounds to get the chance to work together and provide their own perspective on the research."

Numerous discussions with administration and science department chair Karl Frank led to the official establishment of Campbell Hall's first university partnership with a professor at UCLA. Because the partnership is so new, Campbell Hall's neurobiology program is currently just a club.

Wasserman's vision is to have her research program become part of the AP Research and Seminar course at Campbell Hall. Having the program integrated into the curriculum and potentially doing independent studies would allow her to get one step closer to her goal of expanding the program nationally. The neurobiology club hopes their research serves to contribute to the advancement of many fields.

"[We are focusing on] how the fly analyzes what it sees and how it translates that into appropriate behavior," Wasserman said. "The research we're doing is aiming to make discoveries that could affect the fields of robotics and multisensory information."

Not only does this club have a place for students with interest in any field, but it provides an environment that allows for club members to step out of their comfort zones and test their research ideas, no matter how unconventional they may seem.

"A big part of the club is that it gives the students the chance to fail," Wasserman said. "The only way to make real advances in any field is to fail. I'm really hoping that this club will be able to provide the opportunity for students to have a space where they can come in and have wacky ideas and try them."

While the effectiveness of the research of high school students compared to post-doctorates at UCLA seems less significant, in the eyes of Wasserman, it is rather invaluable.

"When you've gotten to the post-doc stage, you've been trained by your advisors to think a certain way," Wasserman said. "It's so amazing to work with high school students because there are fresh perspectives and ways of thinking that the post doctorates have been conditioned to no longer think."

Hudnut hands out #DemandClimateChange awareness ribbons at 2015 Emmy Awards

By **Olivia Abbott**
Staff Writer

Conor Hudnut (16) walks into the 67th Annual Emmys, anxious and excited. He has an important mission to fulfill. The entire cast of *Game of Thrones* and *Mad Men* greet him at the door as he carefully pins the #DemandClimateChange ribbons onto their extravagant ball gowns and expensive suits. Laverne Cox, one of the leading characters in the popular Netflix series *Orange is the New Black*, greets him with a smile.

Hudnut received an internship for Timberman/Beverly Productions over the summer where he was given opportunity to work alongside television producers.

"My boss is developing a show about climate change and global warming, so I did a lot of research for that; she had a ton of tickets for the Emmys," Hudnut said. "She asked me and my brother, since we are family friends, to go to the Emmys with her and [spread awareness about] the NRDC (National Resources Defense Council)," Hudnut said.

The NRDC has been working with organizations and volunteers to protect the oceans, produce clean energy and lessen pollution in hopes to combat the of climate change since 1970. They have played a big role in influ-

encing Timberman/Beverly Productions to make appearances at popular events.

There is more carbon dioxide in the atmosphere today than at any time in the last 800,000 years and 99.84 percent of California is experiencing major droughts due to drastic climate changes, according to facts on Climate Central.

Hudnut has been interested in studying climate change for years and this was his first hands-on experience working to raise environmental awareness with well-known actors and actresses.

"I'm in AP Environmental Science this year so I care a lot about the environment," Hudnut said. "I have always been interested in environmental studies.

Last year, I took marine biology because I've always been interested in climate change and how it affects the oceans."

Although Hudnut was not quite prepared for the renowned event, he was up for the challenge and was excited to get the chance to present the risks and dangers of global warming to a more public crowd.

"I didn't really know a lot about it, going into it. My boss actually emailed me the day before the Emmys and asked if I wanted to; I, of course, said yes," Hudnut said.

Celebrities like Laverne Cox and Ariel Winter (16) were seen wearing their ribbons proudly, posing for the cameras and advertis-

ing in advocating against climate change.

Major media outlets covered the green ribbons at the Emmys including Page Six, *The New York Times*, and Today.com.

Timberman/Beverly Productions is working hard on future projects to raise more awareness on the issues of climate change and other environmental problems. They are hoping to raise awareness by planning more ribbon handouts at concerts and other

events. Hudnut hopes to actively help and contribute in the global meetings that occur in the future.

"In January, there is going to be a meeting [in Paris] with a bunch of global leaders to talk about how the environment is in very bad shape," Hudnut said. "It's the last time that tons of different countries are coming together to talk about climate change, so it's very pressing."



#DemandClimateChange: Hudnut poses with friends and their climate change ribbons. Photo with permission from Conor Hudnut