

Research & Scholarship

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Fotonovela Is Effective in Educating Hispanic Young Adults About HPV Vaccination

*Brandon Brown*

Each year, nearly 14 million Americans are newly infected with human papillomavirus (HPV), a sexually transmitted virus that can cause cancer. Although vaccine against HPV has been around for nearly a decade, vaccination rates in the country are disappointingly low — including among Hispanics.

How can young adults in the Hispanic community be targeted with crucial information about HPV and the vaccine?

Brandon Brown, an assistant professor in the School of Medicine, has an idea. He and three other researchers have prepared a [“fotonovela”](#), a photographic short story similar to a comic book.

Written in English at a sixth-grade reading level, the fotonovela discusses a young Hispanic female who learns the importance of being vaccinated against HPV while in a committed relationship. A major theme addressed in the fotonovela is the heightened risk of HPV infection in extra-relational affairs. The [fotonovela](#) is also available in Spanish.

The research team tested the effectiveness of the fotonovela on 41 young adults, aged 18-26, in Southern California. The majority of the participants, nearly 93 percent of whom were Latino/Hispanic, found the fotonovela entertaining, educational and easy to read.

“All sexually active individuals are susceptible to HPV-related disease, regardless of sexual history, relationship status, condom use, ethnicity and gender,” Brown says. “Our fotonovela is a unique educational tool and is one of the first culturally tailored educational interventions designed to promote HPV vaccine acceptance among Hispanic young adults. Not only does it improve knowledge, attitudes and intentions regarding vaccination, but it also encourages a much needed dialogue about HPV prevention in the community.”

The Hidden History of Gay Purges at Colleges

Uncovering a little known aspect of history, a UCR associate professor has published

a paper about purges of gay students and faculty at at least three universities in the 1940s.

The paper details incidents at the University of Texas, the University of Wisconsin and the University of Missouri, where students or faculty presumed to be homosexual were expelled or fired. Two of the universities – Wisconsin and Missouri – created administrative machinery to track students and faculty that were purged, helping to hinder their future success.



Margaret Nash

“In LGBT history, very little attention is paid to anything before the Stonewall riots in 1969,” said Margaret Nash, an associate professor at UC Riverside’s Graduate School of Education. “When people do take note they say, ‘Oh, that’s part of McCarthyism.’ But, in these cases, it wasn’t. These cases preceded McCarthyism. Who knew?”

She compared what was happening in the gay community in the 1940s to the events of today. In the late 1940s, there was a movement toward greater acceptance of gays, after the publication of the Kinsey Report which documented that homosexual activity was far more common than many people believed. But just as some people moved toward acceptance, others moved toward increasing harshness.

Meanwhile, today, the legalization of gay marriage draws a lot of attention, but at the same time you can lose your job or your housing in about 30 states. There are also high profile incidents involving people such as Kim Davis, the county clerk who refused to grant marriage licenses to same sex couples.

The paper, “An Indelible Mark”: Gay Purges in Higher Education in the 1940s,” was published this month in the journal *History of Higher Education Quarterly*. It was co-authored by Nash and Jennifer Silverman, who earned her Ph.D. in December after studying with Nash and is now the associate registrar at the University of La Verne.

UCR Chair Teaches a Research-Based Capstone Course in Experimental Microbiology



Katherine Borkovich

Katherine Borkovich, the chair of the Department of Plant Pathology and Microbiology, teaches a research-based capstone course at UC Riverside: Experimental Microbiology. The first peer-reviewed publication with majority undergraduate authors from that course will appear soon in the journal *G3: Genes, Genomes, Genetics*.

“I am extremely proud of their achievement,” said Borkovich, a professor of plant pathology and microbiology. “They’ve worked very hard to prepare the paper and learned much about the scientific publication process along the way.”

The undergraduate authors on the paper are: Itallia V. Pacentine; Andrew Lim; Nayeli Guerrero; Alexander J. Carrillo; Liza M. Davidson; Andrew H. Barsoum; Jackie Cao; Ronald Castillo; Wan-Ching Chen; Alex Dinkchian; Stephanie Kim; Sho M. Kitada; Taffani H. Lai; Ashley Mach; Cristin Malekyan; Toua R. Moua; Carlos Rojas Torres; and Alaina Yamamoto.

“The first three undergraduates started work on the project in 2012, the year before I taught the course for the first time,” Borkovich said. “The other 15 students took my course. They are all very excited

about the publication.”

The study, which focuses on a filamentous fungus, the model organism *Neurospora crassa*, is the first comprehensive analysis of available mutants lacking all predicted G protein coupled receptor (GPCR) genes. GPCR are involved in environmental sensing, Borkovich explained. Filamentous fungi are critical for plant biomass recycling, interactions with plants and as infectious disease agents in animals. Detection of other organisms, for which GPCRs are necessary, is critical for these activities.

“This study provides evidence that a group of GPCRs related to a gene required for disease in a fungal plant pathogen may function during sensing or utilization of plant carbohydrates,” Borkovich said.

Ilva Cabrera is the first author of the research paper. A graduate student, she was a teaching assistant for the Experimental Microbiology course and supervised undergraduates in Borkovich’s lab. Borkovich, Cabrera and the undergraduate students are finishing a second research paper and plan to submit it to a journal in early 2016. A third paper is also under preparation.

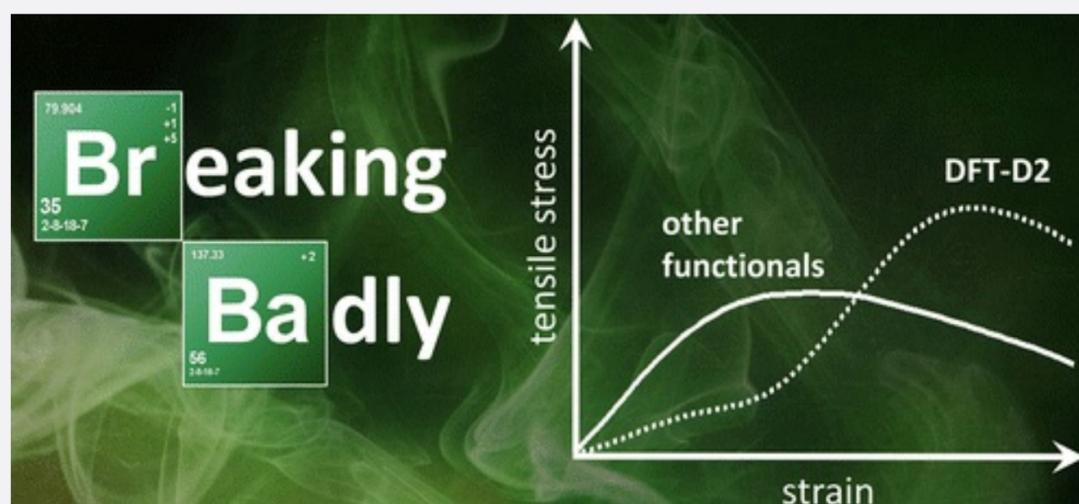
Entomologist’s Jewel Wasp Gene Research Published

Omar S. Akbari, an assistant professor in the Department of Entomology, recently had a paper published in the journal *Genes, Genomics, Genetics*. The paper involves the broad scale characterization of gene expression in germline and somatic tissues of the Jewel Wasp (*Nasonia Vitripennis*.) This dataset is integrated into an open access genome browser and complements a previous dataset Akbari helped generate. One of the goals of the work is to understand the mechanism of paternal sex ratio and use these principles to engineer similar selfish genetic elements in species such as mosquitoes to prevent the spread of vector diseases in humans.

Math Professor Asked to Speak at Broadcom

John Baez, a professor of mathematics, gave a talk on category theory and electrical circuits Nov. 18 at Broadcom. He was invited by Broadcom’s central engineering group. Broadcom is a semiconductor company in the wireless and broadband communication business.

UCR Researchers Publish “Breaking Badly”



Materials science researchers don’t often get to be creative with the titles of their research papers, so Bryan Wong, assistant professor of chemical and environmental engineering at UC Riverside, and his graduate student Niranjana Ilawe jumped at the chance to reference a popular TV series in their recent publication in the *Journal of Chemical Theory and Computation*.

Titled “[Breaking Badly: DFT-D2 Gives Sizeable Errors for Tensile Strengths in](#)



Bryan Wong

[Palladium-Hydride Solids](#),” the research describes an error in one of the computational methods used to test the strength of palladium-based materials, which are widely used in the automobile, agrochemical, and fuel-cell industries. The paper could ultimately improve safety outcomes in these industries. The paper ranks as one of the top 10 most read articles in the journal this month.

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