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# IMPACT REPORT Q3

THIRD QUARTER



People,  
Place,  
Promise



**College of Tropical Agriculture  
and Human Resources**

University of Hawai'i at Mānoa

*The founding college of the  
University of Hawai'i, established 1907*

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1907

## THIRD QUARTER

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College of Tropical Agriculture and Human Resources  
**People, Place, Promise**



*“Imparting important lessons when children are young enough to fully embrace them will help our keiki to thrive.”*

**Seedlings.** CTAHR may be a university-based institution, but its benefits extend to other students beyond those attending the college. In fact, some of our most important work is done with the younger members of the community, offering lessons about health, science, sustainability, and giving back.

In this quarter’s *Impact Report*, we look at three programs that educate and inspire youth. Island 4-H organizations, part of the venerable and successful nationwide program, bring a local flavor to the mandate to cultivate head, heart, health, and hands for the purposes of clear thinking, loyalty, community service, and healthy living. The Biotechnology Outreach Group’s enthusiasm for explaining DNA and a host of other related scientific concepts to elementary children gives a new meaning to the word “gene-ius.” Lastly, the Children’s Healthy Living project not only teaches children in remote Pacific regions to eat well and play hard but also shows members of those very regions how to help their own communities.

Considering these and other youth initiatives at CTAHR brings to mind an agricultural metaphor: seedlings given all the elements they need to flourish from the time they first sprout are so much more likely to grow into healthy and strong plants. Beginning to impart important lessons when children are young enough to fully embrace them will likewise help our keiki to thrive.

Aloha,

A handwritten signature in gold ink that reads "Maria Gallo". The signature is fluid and cursive.

Maria Gallo  
Dean and Director of CTAHR

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## Eat, Play, Live

**T**he CHL program has a long name, impressive funding, and an important mission. Two and a half years ago the Children's Healthy Living Program for Remote Underserved Minority Populations in the Pacific Region, headed by Rachel Novotny (HNFAS), was awarded a competitive grant of \$25 million over 5 years, and it's working to effect much-needed change. The project partners with local communities in Hawai'i, Alaska, American Samoa, the Commonwealth of the Northern Mariana Islands, Guam, the Federated States of Micronesia, the Republic of Palau, and the Republic of the Marshall Islands to promote sustainable environments supporting healthy diets and active play for young children.



*CHL integrates elements from traditional and modern global cultures that enhance health.*

Limited data suggest that Pacific jurisdictions are some of the most obese countries in the world, and the problem is growing amongst the children as well as the adults in these regions. The methods by which the team encourages children to become more healthy range from promoting local foods, including produce from students' own school gardens, to encouraging them in active play. Traditional foods, sports, and activities are supported, for often it's their societies' increasing reliance on modern Western conveniences and entertainments that has contributed to children's obesity. In Alaska, for instance, easily available and unhealthy hydrogenated fat often takes the place of traditional fat sources, and, in all these regions, "screen time" in front of the television or computer can trump more energetic pastimes. CHL is not a program designed specifically to bring back the old ways, though; rather, it seeks to integrate elements from traditional and modern global cultures that enhance health.

The founders of the project have lofty goals in mind, and one of the most important is for the people they're helping to then be able to help others in their communities. There's even a provision for undergrad and graduate scholarships that will allow students to earn degrees and then return to their homes to help prevent childhood obesity there. Joaquim Pangelinan Castro of Chuuk is one of the 22 excited and motivated students participating in the program now. "I hope to be that person who will be there to serve, educate, and motivate my community with the knowledge I attain from the CHL training program," he says, neatly encapsulating the program's goals—and the reasons it's succeeding.



*CHL staff and students in American Samoa play with a parachute to increase cardiovascular activity.*

## 4-H—Hawaiian Style

**N**owadays, getting involved with 4-H doesn't just mean raising a cow to show at a farm fair! With its updated Science, Healthy Living, and Citizenship mandates, the organization is involving young people in hands-on educational programs that help them become more informed and engaged citizens.

Hawai'i 4-H fosters the next generation of inventors, entrepreneurs, and problem-solvers through real-world science experiences. The Spring and Summer Fun Days in Kona included projects such as dissecting fish and experimenting with solar energy, light sticks, and water density. The 4-H Junior Master Gardener programs in Kainaliu and Hilo bring together science, environmental awareness, and life skills as students and their families plant, care for, harvest, cook, and eat a wide variety of produce.

Of the four H's on the iconic cloverleaf, Health is getting lots of attention in local programs. At this past summer's 2013 Ahaolelo teen conference, 4-H delegates participated in the "Amazing Race to Health" by learning about healthy and unhealthy food choices. With the help of the Camp Erdman YMCA staff, 4-H program Operation: Military Kids offered the "Up For the Challenge" day camp to school-age military children, including learning sessions on healthy living topics, physical activities such as stand-up paddling and ropes courses, and spirit-renewing exercises in mindfulness.

In the spirit of good citizenship, O'ahu 4-H Council members not only prepared food and served it to the residents at the Next Step homeless shelter; they also raised public awareness about homelessness. To help military families with members returning from deployment, 4-H'ers from Hawai'i, Kaua'i, and Maui helped create "FIT" kits: comprised of a cookbook, family activity guides, flower and vegetable seeds, an empty scrapbook, and an interactive game, these Family Interaction Tools foster family togetherness.

Of course, the agricultural side of 4-H is still going strong, as well—the last livestock auction brought record prices for the participants' steers, goats, chickens, sheep, and rabbits. With a little something for everyone, today's 4-H is an invigorating mix of traditional values—updated for the present day.



*4-H Junior Master Gardeners get their hands in the dirt.*

*Summer Fun Day participants discover that an apple can be used as a battery!*



# Inspiring Tomorrow's Scientists, Today

**F**or over seven years, the Biotechnology Outreach Program has brought science and its many topics into the lives of Hawai'i's keiki. The program director, Ania Wieczorek (TPSS), realized a significant knowledge gap existed concerning the general public's knowledge of genetics and its application and importance to agriculture, and she began building her program with the goal of addressing it. She wanted to provide the basic scientific knowledge required to make better-informed decisions on current issues, such as genetically modified organisms (GMOs).

The program began with Gene-ius Day field trips, which continue today. Elementary schools visit the UH-Manoa campus every week during the regular school year, where O'ahu's young students conduct their own papaya DNA extractions, observe plant cells under a microscope, examine their own genetic traits, and perform skits to understand the importance of agriculture and the daily challenges of farmers in Hawai'i. In the 2013–2014 school year, an estimated total of 1,900 students will participate in the Gene-ius Day Program. Since 2006, the field trip program has welcomed over 8,000 students.

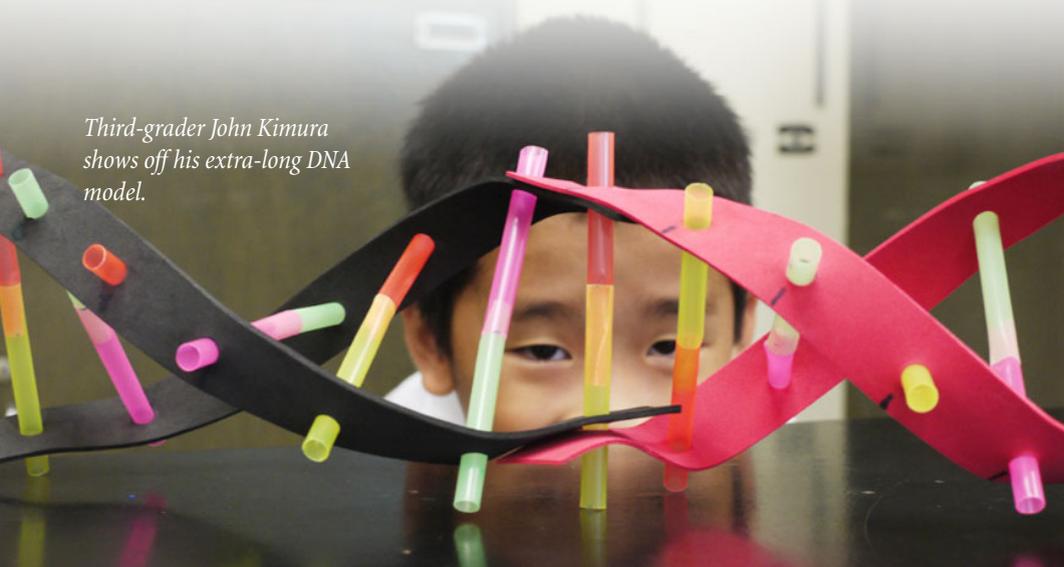
The success of the Gene-ius Day field trips led to the development of "Saturday Gene-iuses" at UHM and Kaua'i Community College. Elementary students visit teaching laboratories to explore genetics, botany, forensics, entomology, biotechnology, archeology, climatology, and more with exciting, hand-on activities. The team runs three 2-hour Saturday Gene-ius classes twice a month; in its initial year, Saturday Gene-iuses welcomed over 275 students. And next fall the program will expand to include grades 7–12 as well!

The science-loving Biotechnology Outreach team consists of UH staff and graduate and undergraduate students who work together to make each class fun, interesting and engaging. The result is a group of young scientists leaving the classroom excited about science. Students at the end of class commonly say, "I want to be a scientist when I grow up!" The team all agrees that this qualifies as a job well done. Dr. Wieczorek is confident that with results such as this, many students will return to the University of Hawai'i, continue to be inspired by science and enter into science-related fields, and be prepared to make better decisions on current science-related issues.



*Dylan Tawata (Grade 3) points out the DNA inside the test tube to his mom.*

*Third-grader John Kimura shows off his extra-long DNA model.*



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