

BYU Undergraduate Helps Discover Medicinal Properties in Plants

Ryan Huish and his professors have located properties of several Tongan plants that can help stop infections like ecoli, staff and candida. The results come from yearlong field and laboratory studies, funded in part by BYU's Office of Research and Creative Activities and supported by his mentor Dr. Rex Cates.

One Tongan plant contains compounds that inhibit the growth of staff infection by 99 percent. Another plant has been shown to inhibit the growth of candida by 97 percent. The findings have held up to repeated tests using various concentrations of the compounds.

The plants were gathered, pressed and delivered to BYU by Huish and his wife, Katie, who assisted him in the field research. The undergrad has been performing laboratory studies on the plant compounds during the past two semesters. The data is also benefiting ongoing research by Cates, who is studying medicinal values of plants from different parts of the world.

The research is both timely and important since pharmaceutical corporations are delving further into the study and use of plants for medicine. Currently, about 25 percent of today's medicines are derived from plants, but less than one percent of them have been explored for their pharmacological benefits.



Esta (right, at right), from Vava'u, Tonga, shares a remedy she uses for cancer treatment. Huish and his wife, Katie, were able to work with several traditional healers to learn what plants are used for medicinal purposes on the islands. Huish, prepares herbarium specimens that are now stored at BYU's Monte L. Bean Museum.

Huish has always loved plants. When he entered college he wasn't sure whether he wanted to study botany, chemistry or medicine. He discovered ethno-botany, which includes botany, medicine and anthropology, "all my interests," he says. "I was excited to find that out, because I didn't have to make a decision to do one or the other. I could do all three."

He says the research has opened up many other opportunities for him. He presented at last Spring's Conference for the Society of Ethno-biology, and met professors and professionals from many other universities. Huish is also planning on publishing the results of his study with Dr. Cates as soon as their tests are confirmed by outside sources.

Huish calls his research opportunity "priceless," and advises other students to get to know their professors and get involved in research. "The practical experience is really good when you're trying to apply to other schools," he says, "and opens up a lot of new opportunities."