

A baby, Skype and water research partnership with Israel

July 20 2010

A year ago, Sharon Walker, an associate professor of chemical and environmental engineering at the UC Riverside Bourns College of Engineering, flew to Israel with support from a Fulbright fellowship to study water quality and sustainability issues in a similarly arid environment.

She returned last month with a a deep familiarity with Skype, a baby daughter and a grant to develop a collaborative program on water sustainability with Ben-Gurion University of the Negev in Israel.

Her daughter, Ma'ayan, is now five months old. She spent 10 hours a week on Skype communicating with her six doctoral students, including one who likely will be going to Israel in December. And the \$147,000 grant from the U.S. Department of Agriculture National Institute of Food and Agriculture kicked off last week with an Israeli scholar's visit to UCR.

In the coming years, Walker, the John Babbage Chair in Environmental Engineering at UCR, hopes research and exchanges between UCR and Ben-Gurion faculty and graduate students will help the U.S. follow Israel's lead in sustainable water use.

With co-principal director Moshe Herzberg of Ben-Gurion, Walker will establish an international, interdisciplinary research and education collaboration with the goal of developing innovative approaches to water management for agricultural uses, especially in desert areas.

The project, "Water Sustainability in Desert Agriculture: Enhancing relationships with global competency of graduate students and faculty through collaboration with Israel," has three components:

- Hands-on experience with Israel's water management and agricultural research in short visits for faculty and extended visits for students.
- Shared materials for undergraduate and graduate course development to enhance the international content of existing courses at UCR and Ben-Gurion.
- Dissemination of information to assist U.S. scholars in becoming acquainted scientifically and culturally with Israeli [water management](#) and research, particularly its affect on sustainable agriculture in desert regions.

The project will link 10 UCR faculty members in the Bourns College of Engineering and the College of Natural and Agricultural Sciences. Ultimately, faculty and students will share their findings with researchers at UCR and Ben-Gurion, and agricultural professionals, such as those at UCR Cooperative Extension.

While Walker was in Israel she alerted Ian Marcus, one of her graduate students, to fellowships offered by the Binational Agricultural Research & Development Fund.

Marcus got the fellowship. He will travel to Israel, likely in December, for up to six months of research on effect of the microbial community on the virulence of E. coli and its transport in water reuse applications. He will work with Herzberg, Walker's co-principal director on the grant.

Marcus and Walker are working in Israeli in part because the country is a worldwide leader in using reclaimed or recycled water, which includes groundwater, wastewater and grey water, which is generated from activities such as dishwashing, laundry and bathing.

A 2008 USDA report, "Opportunities and Challenges in Agricultural Water Reuse," notes that 46 percent of agricultural water in Israel is expected to be from reclaimed sources by 2020. The report also notes that the U.S. ranked last among 147 countries in water efficiency.

At the same time, there is increased interest in using recycled water in the U.S. and Southern California.

For example, in 2008 the Municipal Water District, a consortium of 26 water districts, funded a program to expand its water recycling and groundwater recovery efforts, with a goal of adding approximately 200 million cubic meters to the 445 million cubic meters it currently produces each year.

Similarly, the California Department of Water Resources is seeking to increase the state's water supply by more than 1,230 million cubic meters per year through [water](#) reuse.

Provided by University of California - Riverside

Citation: A baby, Skype and water research partnership with Israel (2010, July 20) retrieved 18 April 2024 from <https://phys.org/news/2010-07-baby-skype-partnership-israel.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.