

## REFERENCE & PHOTOS

**Dr. Eva Moya- University of Texas at El Paso**

López C., Carolina. (2018). “Contributions of Regional Centre of Expertise: Borderlands México-USA's Collaborators in Health, Sanitation and Nutrition in Their Localities” in *Innovation in Local and Global Learning Systems for Sustainability - Ensure Healthy Lives and Promote Well-being for All Experiences of Community Health, Hygiene, Sanitation and Nutrition- Learning Contributions of the Regional Centres of Expertise on Education for Sustainable Development*, UNU-IAS, Payyappallimana, Unnikrishnan & Zinaida Fedeeva (eds). United Nations University- Institute for the Advanced Study of Sustainability: Tokyo, pp. 22-31.





After decades of research toward protecting the environment, UTEP Department of Chemistry Chair Jorge Gardea-Torresdey, Ph.D., has achieved a dream come true.

The professor is part of a team awarded a fiercely competitive Engineering Research Center (ERC) grant from the National Science Foundation. The five-year, renewable \$18.5 million grant will expand scientific advances addressing the world's urgent demand for clean water through low-cost, energy-efficient and environmentally friendly methods.

These methods have the potential to benefit 43 million Americans who rely on private wells for water with little or no treatment and the 780 million people worldwide who have no access to clean water.

"I became a chemical engineer and environmental chemist because I wanted to do research related to the protection of the environment," Gardea-Torresdey said. "Having been awarded this grant to produce drinking water using nanotechnology makes me incredibly honored and happy."

This ERC grant is the first for UTEP and only the third awarded in Texas in nearly 30 years. The funding establishes a Houston-based Nanotechnology-Enabled Water Treatment Systems Center (NEWT).

As UTEP project leader for NEWT, Gardea-Torresdey will direct a local team alongside other leading experts

from Rice University, Arizona State University and Yale University. The UTEP group includes Assistant Professor of Social Work Eva Moya, Ph.D.; Associate Professor of Chemistry Juan Noveron, Ph.D.; Assistant Professor of Chemistry Dino Villagran, Ph.D.; and Assistant Professor of Civil Engineering Shane Walker, Ph.D.

NEWT's technology converts water from any source - including pond water, seawater and floodwater - for use fewer chemicals, produce little to no waste, create fewer to no harmful disinfection byproducts, and requires less energy to operate than typical water treatment systems.

The technology may benefit sites where there is no electrical grid for current energy-intensive purification systems, including local colonies - neighborhoods in the Texas-Mexico border region without potable water infrastructures. Other applications include desalinating water for coastal disaster relief and preparing well water for oil and gas production with less environmental impact.

As the first national center to develop affordable, mobile, modular, high-performance water treatment systems that are enabled by nanotechnology, NEWT will work with more than 30 industry and government partners to speed the transition of this technology to the marketplace. - Lisa Y. Garbey

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## THE UTEP TEAM

From left: **Juan Noveron, Ph.D.**, associate professor of chemistry; **Dino Villagran, Ph.D.**, assistant professor of chemistry; **Eva Moya, Ph.D.**, assistant professor of social work; **Jorge Gardea-Torresdey, Ph.D.**, UTEP Department of Chemistry chair; and **Shane Walker, Ph.D.**, assistant professor of civil engineering.

PHOTO BY J.R. HERNANDEZ





## Adults Experiencing Homelessness in the US–Mexico Border Region: A Photovoice Project

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Homelessness is a social, economic, and political crisis in the United States. In particular, the US–Mexico Border region has seen a surge of homelessness, specifically among veterans, women victims of intimate partner violence, and immigrants. In 2014, 12 persons in El Paso, TX, with experience of being homeless used the photovoice methodology to participate in a project titled, “The Voices and Images of the Residents of the Opportunity Center for the Homeless: A Visual Project on the Identity and Challenges Homeless Adults Face on the Border Region.” The project was led by faculty from the Department of Social Work and facilitated by graduate students from the Departments of Social Work, Sociology, and Anthropology at the University of Texas at El Paso, in partnership with the Opportunity Center for the Homeless, a community-based organization, a gallery of photographs with respective narratives was produced along with a video documentary. The participants identified four themes: broken systems, invisibility, opportunities and what works, and growth and determination. These themes represent participants’ life experiences with homelessness and their aspirations. In addition to the photo gallery, participants supported the development of a Call to Action asking the community, policy, and decision makers to commit to changing the current social, economic, and political conditions affecting individuals experiencing homelessness. The gallery, Call to Action, and overall participant experiences with photovoice were shared during local, regional, and national conferences and events, including three State of the Homeless Conferences led by the Opportunity Center for the Homeless in partnership with the university.

**Keywords:** homelessness, photovoice, US–Mexico Border, health, advocacy

## INTRODUCTION

Many take the concept of “home” for granted. Even those of us who are unsatisfied with our apartments or houses, and who dream of living elsewhere, usually have a place to sleep at night and space to call our own. However, for an alarming number of people ranging from infants to elderly, “home” is an elusive—and perceivably unachievable—dream. These are the populations we refer to in this article as persons experiencing homelessness. Overwhelmingly, people do not choose to be homeless. Homelessness most often occurs as a result of personal challenges and societal failure to address basic human protections. It is an international phenomenon with complex causal mechanisms and







