

DRI expands Chinese partnership to address water pollution, management issues

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Algae blooms along the shore of Lake Taihu are shown. Credit: Desert Research Institute

The Desert Research Institute (DRI) and the Nevada Center of Excellence today announced a unique partnership with China's foremost water research university to address global water pollution and supply

issues.

Building upon a long-standing academic relationship between DRI faculty and their colleagues at China's Hohai University, the new collaboration will develop a joint-international laboratory that will facilitate faculty and student exchanges; water resources management and training, and [water pollution](#) monitoring and mitigation. The new laboratory will focus on innovative scientific research to rehabilitate and sustain some of China's most polluted watersheds. Hohai University, established in 1915, has more than 30,000 degree seeking students and 3,000 staff members. With campuses in Nanjing, Jiangning and Changzhou, it serves as one of China's leading academic research institutions.

DRI President Dr. Steve Wells and Hohai University President Xu Hui signed a memorandum of understanding outlining the objectives of the expanded partnership in the city of Nanjing, China in August. The DRI delegation to China, headed by Wells, included DRI research professor and the new lab's co-director Kumud Acharya, Ph.D. and Kenneth Ladd, Vice Chairman of the Nevada Center of Excellence. The partnership's main objectives include identifying shared top-level hydrology and water resource research foci of scientific and strategic importance; the application of joint research funding within China and the United States; and the development of a world class research team from Hohai University and the Desert Research Institute. In support of developing a talent exchange and between China and the United States, the partnership includes the annual exchange of three to six academic personnel and the implementation of shared laboratories to facilitate research. The partnership also includes the joint organization of workshops, symposia, international conferences and publications.



For more than two decades Lake Taihu has been stricken with toxic blue-green algae (cyanobacterium) blooms that have jeopardized the drinking water supply of more than 20 million people. Credit: Desert Research Institute

"Our initial work will expand the algae bloom research we have done on Lake Taihu, China's largest freshwater lake, and the Yangtze River Delta," said Acharya, "This heavily polluted region of Eastern China serves as the ideal test-bed for implementation of innovative technologies and water management practices that can then be applied across the globe."

For more than two decades Lake Taihu has been stricken with toxic blue-green algae (cyanobacterium) blooms that have jeopardized the drinking water supply of more than 20 million people. The once stable watershed

is now home to over 40 million people and serves as the literal "canary in the coal mine" related to China's dramatic economic and population growth, Acharya explained.

Through the engagement of a shared laboratory at DRI and Hohai, the research scientists will broaden the impact of their work throughout Southeast Asia and the US, using the joint laboratory to research water management practices for watersheds affected by dramatic population growth and urban development.

"We believe that this collaboration will allow us to build a team of world class researchers from both institutes to solve urgent problems on water pollution and management – not only in China but all over the world," said Hohai University President Xu Hui.

Acharya, who has worked in the Lake Taihu region since 2007 and published more than a dozen scientific reports on the water quality issues affecting the region, added that with the depth of experience and resources provided by the Nevada Center of Excellence the new partnership will also assist private industry with research and development of innovative technologies for tracking and mitigating water pollution in megacities and developing countries.

"This is an opportunity to change the culture of international research and development," said Wells, DRI President and Chair of the Nevada Center of Excellence Board of Directors. "We will be developing intellectual property in both Nevada and China, and sharing our knowledge and expertise to better serve the communities and people accessing these heavily impacted [water](#) resources."

Provided by Desert Research Institute

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