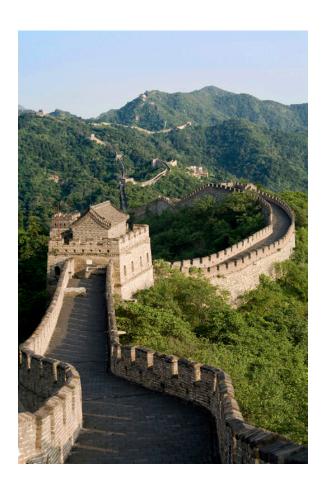
Advancing Injury Research in China

Success stories of the NIH/Fogarty International Center funded USA-China Agricultural Injury Research Training Project









n 2004, an epidemiologic study of 200,000 farm families in rural areas of China yielded an annual estimate of over 590,000 injury deaths and close to 3,500,000 permanently disabled individuals. The rural setting, the large number of hazards and the deficiencies in emergency care in remote areas provide an opportunity to improve the health and safety of this important group of workers and their families. In China, injury control and prevention has only recently been included in the curriculum of a few universities, with even fewer focusing on agriculture-related injuries. In response to this, the USA-China Agricultural Injury Research Training Project was created in 2004 with funding from the NIH/Fogarty International Center.

As a collaborative project between the Colorado Injury Control Research Center, the Center for Injury Research and Policy of The Research Institute at Nationwide Children's Hospital and the School of Public Health, Tongji Medical College at Huazhong University of Science and Technology (Tongji School of Public Health), the training project specifically aims to:

- · Provide training to Chinese scholars on issues critical for reducing agricultural injuries
- Expand collaborative research activities between the injury control research centers and researchers in China
- Provide training and continue development of human subjects research ethics

The long-term goal of the project is to increase training and agriculture-related injury research in China in order to develop an infrastructure for future sustainable agricultural injury research.

This pamphlet shows the successes of the USA-China Agricultural Injury Research Training Project and the impact of the training project on its trainees' careers. Publications and research projects funded through the training project are also highlighted. Through this pamphlet, we are excited to share with you the milestones and success stories of the USA-China Agricultural Injury Research Training Project.



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Associate Professor and Director for International Programs, Center for Injury Research and Policy



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SINCE THE FIRST TRAINING SESSION IN 2007, A TOTAL OF 79 MID-LEVEL AND SENIOR RESEARCHERS HAVE BEEN TRAINED.

October 15-19 2007

32 researchers attended a training workshop in Wuhan, Hubei Province.

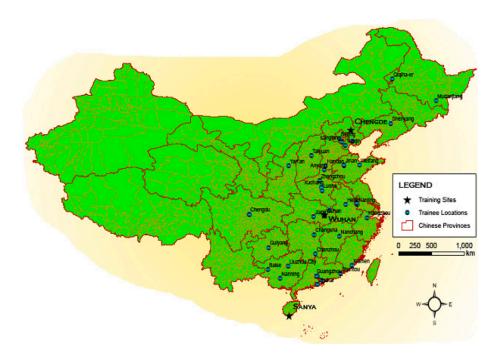
October 20-24

2008

24 researchers attended a training workshop in Sanya, Hainan Province.

August 9-14 2009

23 researchers attended a training workshop in Chengde, Hebei Province.



This workshop is a pioneer in injury research training in China. It promotes scientific exchange and cooperation.

Hongyan Yao, MD, PhD

3rd Workshop Trainee & US-Training Scholar, Senior Researcher, Chinese Center for Disease Control and Prevention, Beijing

SUCCESS OF SCIENTISTS TRAINED IN US

raining scientists in the United States has been an important part of the success of the USA-China Agricultural Injury Research Training Project. Chinese researchers have been able to work alongside faculty at the Colorado Injury Control Research Center and the Center for Injury Research and Policy at Nationwide Children's Hospital.

By working with US faculty members, researchers from China obtain first-hand knowledge regarding injury research study design, data collection and statistical analysis, report and manuscript preparation, IRB procedures and other ethical issues in the responsible conduct of injury research. The English-based academic environment substantially increases their technical writing and speaking skills in the English language. This program also provides seed money for trainees to continue their research at home when they return.

In the past three years, the USA-China Agricultural Injury Research Training Project has hosted six Chinese researchers at the two US injury control research centers. Min Shen, MD, PhD and Limin Wang, MD, MPH exemplify the program's success. Both scientists received training in the US and are currently active in injury research and injury surveillance in China.



As a faculty member of the Tongji School of Public Health, Min Shen, MD, PhD, is an active injury researcher. She was selected to receive research training at the Colorado Injury Control Research Center. Under the

mentorship of Lorann Stallones, MPH, PhD, Dr. Shen finished a research project that investigated injuries among left-behind children in a rural area of Hubei Province. Injury and safety among children left behind are a large public health problem in China because their numbers are increasing as more rural people move to cities for work due to the current social and economic climate. Dr. Shen's study discovered that left-behind children have a higher injury rate than those in the care of both parents. The findings were published in the journal *Injury Prevention*.



Professor Limin Wang, MD, MPH, received training and conducted injury research in the fall of 2008 at the Center for Injury Research and Policy at Nationwide Children's Hospital. She now serves at the Chinese

Center for Disease Control and Prevention as the Director of the Department of Chronic Disease Surveillance. During her training in the US, she worked with her mentor, Huiyun Xiang, MD, **PhD**, to study alcohol consumption and work-related injuries among farmers in the Heilongjiang Province of the People's Republic of China. Dr. Wang has published four scientific papers in prominent journals including American Journal of Industrial Medicine, Disability and Health Journal, Chinese Journal of Epidemiology and China Journal of Public Health.



66 The technical and language training in the USA is invaluable to Chinese scholars. 99

Limin Wang, MD, MPH

1st Workshop Trainee & US-Training Scholar, Professor, Chinese Center for Disease Control and Prevention, Beijing





population-based survey, led by **Limin Wang MD**, **MPH**, has provided valuable information about alcohol consumption patterns and agricultural work-related injuries among farmers in northern areas of China. The study shows that the prevalence of work-related injury is as high as 12.2% and that alcohol use is strongly linked with injuries. The findings of Dr. Wang's research, published in the *American Journal Industrial Medicine*, highlight the need for culturally appropriate interventions that address alcohol use and injury prevention among farmers in China.

Dr. Wang participated in the first workshop of the USA-China Agricultural Injury Research Training Project. She later received research training at the Center for Injury Research and Policy at Nationwide Children's Hospital. Her research project was one of nine mentored injury research seed projects selected for funding by the lead investigators of the training project. The seed projects provide Chinese researchers the opportunity to both advance injury research in China and to become independent investigators.

This project plants numerous research seeds in China.
It also builds a friendship bridge between
China and the USA. **99**

Junxin Shi, MD, PhD

1st Workshop Trainee and US-Training Scholar, Lecturer, Tongji School of Public Health, Wuhan, Hubei



The Study of Association Between Alcohol and Agricultural Injury in Rural Residents of Daur Nationality Habitation (2007-2008)

Principal Investigator: Dr. Limin Wang Department of Epidemiology and Health Statistics, School of Public Health, Qiqihar Medical University, Heilongjiang Province

The Cross-Sectional Survey of Agricultural Injury of Farmers in Shouguang's Vegetable Base, Shandong Province China (2007-2008)

Principal Investigator: Dr. Cuizhen Wu Department of Preventive Medicine, Shandong University of Traditional Chinese Medicine, Shandong Province

Agricultural Machinery Injuries Among the Machinery Operators in Northern Rural Areas of China (2008-2009)

Principal Investigator: Dr. Zengzhen Wang Department of Epidemiology and Health Statistics, School of Public Health, Tongji Medical College, Huazhong University of Science and Technology, Hubei Province

Cross-Sectional Study on Rural Resident Pesticide Poisoning in Jiangsu (2008-2009)

Principal Investigator: Dr. Xujun Zhang Department of Epidemiology, School of Public Health, Southeast University, Jiangsu Province Agricultural Injuries Among Adolescents in Hubei, China (2008-2009)

Principal Investigator: Dr. Min Shen
Department of Maternal and Child Health, School
of Public Health, Tongji Medical College, Huazhong
University of Science and Technology, Hubei Province

Non-Fatal Injury Among Dairy Farm Workers in Tangshan Area (2009-2010)

Principal Investigator: Dr. Ling Xue
Department of Health Science, North China Coal
Medical University, Hebei Province

Agricultural Injuries Among Middle School Students in a Rural Area of Northern China (2009-2010) Principal Investigator: Dr. Junxin Shi

Department of Maternal and Child Health, School of Public Health, Tongji Medical College, Huazhong University of Science and Technology, Hubei Province

Review and Analysis on Data Resource of Agricultural Injury in China (2009-2010)

Principal Investigator: Dr. Hongyan Yao Office of Epidemiology, Chinese Center for Disease Control and Prevention, Beijing

Fishing Work-Related Injuries Among Fishers in Shensi Island County, Zhoushan City, Zhejiang Province (2009-2010)

Principal Investigator: Dr. Weiwei Gong Zhejiang Provincial Center for Disease Control and Prevention, Zhejiang Province



Xujun Zhang, MD, PhD

2nd Workshop Trainee & US-Training Scholar, Associate Professor, Southeast University School of Public Health, Nanjing, Jiangsu



SOUTHEAST UNIVERSITY INJURY PREVENTION RESEARCH INSTITUTE

The long-term goal of the USA-China Agricultural Injury Research Training Project is to develop the needed infrastructure for future sustainable injury research in China. Establishment of highly capable injury research centers in China will be critical both for attracting talented scientists and for training the injury research workforce of the future.

While committed to collaborating with existing injury research centers, such as Tongji Injury Control Research Center, our researchers aspire to help build new centers of excellence. The Southeast University Injury Prevention Research Institute is the first of these new centers. Created in Spring 2010 by the Southeast University in Nanjin, Jiangsu Province, the mission of the institute is to conduct multidisciplinary injury research in road safety, agricultural injuries and childhood injuries, and occupational safety training. One of the driving forces behind the institute is **Xujun Zhang, MD, PhD**, the newly designated Institute President. The idea of creating an injury prevention research institute was cultivated while he was trained at the Center for Injury Research and Policy at Nationwide Children's Hospital. His perseverance and the support from leaders at the Southeast University and his US colleagues made his dream come true.

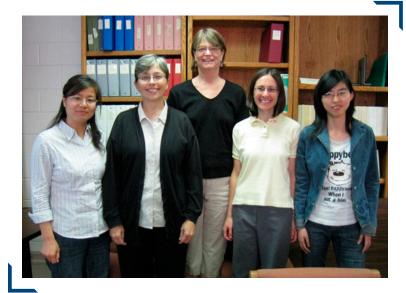


TONGJI SCHOOL OF PUBLIC HEALTH INSTITUTIONAL REVIEW BOARD

Substantial training time at each workshop is devoted to Institutional Review Board (IRB) policies and to the ethics of human subjects research. The IRB sessions are lead by **Celia S. Walker, MA**, whose expertise comes from 14 years of professional experience at Colorado State University handling research integrity issues and IRB regulations.

During the first training workshop in October 2007, leaders of the Tongji School of Public Health were inspired by Ms. Walker's lectures and decided to create their own IRB in May 2008. This IRB is composed of 12 members and currently manages more than 20 research projects each year.

The IRB of Tongji School of Public Health is officially registered at the United States of America Office for Human Research Protections (Registration No.: IORG0005769). This ensures that internationally accepted research subject regulations and IRB policies are followed. Faculty of the USA-China Agricultural Injury Research Training Project provided guidance during the registration process.



y name is Min Shen. I am a lecturer at the School of Public Health, Tongji Medical College, Huazhong University of Science and Technology, Wuhan, China. I participated in the first training workshop of the USA-China Agricultural Injury Research Training Project in October 2007 in China. And then, I was selected and trained at the Colorado Injury Control Research Center, Colorado State University (CICRC) in 2008.

I have great interest in injury research, and I had been involved in some epidemiological studies on women's injury, traffic injury, bicycle injury among students and injury among left-behind children in rural China. I participated in the last three seminars as a translator, which gave me great opportunities to improve my spoken English.

The USA-China Agricultural Injury Research
Training Project provided a perfect opportunity
for me to continue my research in the areas of
injury prevention and control. When I was at the
CICRC, I attended classes, such as Epidemiology
of Occupational Illness and Injuries and Global
Perspectives in Health, developed a research plan
for studying injuries among farm adolescents,
prepared a manuscript in English and submitted
a grant application. As a visiting scholar, I had
an opportunity to work closely with Dr. Lorann
Stallones, an international expert on injuries and
health of farmers and farm adolescents.

During the training period, I published a manuscript about non-fatal injuries among left-behind children in China in the journal of *Injury Prevention*. Before I returned to China, I was informed that my application, "Agricultural Injuries Among Adolescents in Hubei, China" was funded as one of the seed projects of the USA-China Agricultural Injury Research Training Project.

Even though China is one of the largest agricultural countries in the world with more than 800 million farmers, little research attention has been paid to injuries among farmers. This project provides an excellent training opportunity to young scientists who aspire to advance injury research in China.

Min Shen, MD, PhD, Lecturer, Tongji School of Public Health, Wuhan, China

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This training project ignited my enthusiasm about injury research!

It enriched both my career and life experience.

Guanghong Yang, MD, MS

2nd Workshop Trainee, Associate Professor, Guiyang Medical University, School of Public Health, Guiyang, Guizhou





66 The USA-China Agricultural Injury Research Training Project is the cradle that cultivates agricultural injury researchers in China. **99**

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66 The US faculty set an outstanding example for my future injury research. 99

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