

Second China-U.S. Workshop on the Challenges of Emerging Infections, Laboratory Safety and Global Health Security

May 17-19 2017, Wuhan, China

Meeting Program

Note: Each report will take 25 minutes including a 5-minute Q&A.

Date	Time	Agenda
Tuesday 16th May	14:00-21:00	Registration Address: Wanda Realm Hotel Wuhan No.105 Donghu Road, Wuchang District, Wuhan
	19:00-21:00	Dinner
Wednesday 17th May	09:00-10:00	Welcome and opening remarks <i>Chair – Zhiming Yuan (Principle Investigator, Wuhan Institute of Virology, CAS)</i> China: Yaping Zhang (Vice President/ Academician, Chinese Academy of Sciences) Xinwen Chen (Director General/ Principle Investigator, Wuhan Institute of Virology, CAS) U.S.: Linda Saif (Academician, Ohio State University) David Relman (Academician, Stanford University) James LeDuc (Professor, Galveston National Laboratory) - <i>Technical aspects of high-containment lab sustainability: challenges of maintaining a maximum containment laboratory</i>
	10:00-10:30	Tea break and group photo
	Session 1 : Gain of function research, gene editing, targeting and delivery and other novel biotechnology -Thoughts on Gain of function research, gene editing, targeting and delivery and other novel biotechnology -The recent advances in technology and their applications <i>Chair –Yanyi Wang (Deputy Director General/ Principle Investigator, Wuhan Institute of Virology, CAS)</i>	
	10:30-10:55	David Relman (Academician, Stanford University) <i>Genome engineering and other life sciences technologies: challenges and opportunities</i>

	10:55-11:20	Zhihong Hu (Principle Investigator, Wuhan Institute of Virology, CAS) <i>Construction and rescue of a functional synthetic baculovirus</i>
	11:20-11:45	Wensheng Wei (Professor, Peking University) <i>High-throughput functional genomics: coding, non-coding and beyond</i>
	11:45-14:00	Lunch
	Session 2: Public health response to outbreaks and issues -Collaborating on influenza, including avian influenza -Host-pathogen interaction (pathogenesis) <i>Chair –James Le Duc (Professor, Galveston National Laboratory)</i>	
	14:00-14:25	Xia Jin (Principle Investigator, Institut Pasteur of Shanghai, CAS) <i>Dengue Immune Sera Enhance Zika Virus Infection in Human Peripheral Blood Monocytes</i>
	14:25-14:50	Jianping Zuo (Principle Investigator, Shanghai Institute of Materia Medica, CAS) <i>Anti-viral drug discovery in SIMM</i>
	14:50-15:15	Rui Gong (Principle Investigator, Wuhan Institute of Virology, CAS) <i>Engineered human antibody constant domain as candidate against Ebola virus</i>
	15:15-15:35	Tea break
	15:35-16:00	Peiyong Shi (Professor, University of Texas) <i>Antiviral drug discovery and development</i>
	16:00-16:25	James Le Duc (Professor, Galveston National Laboratory) <i>Improving the laboratory's role in emergency health response, Communications during crisis</i>
	16:25-17:25	Round Table Discussion <i>Chair –Zhiming Yuan (Principle Investigator, Wuhan Institute of Virology, CAS)</i> <i>James Le Duc (Professor, Galveston National Laboratory)</i> - Review of day one and plan for day two
	17:25-20:00	Dinner
Thursday 18th May	Session 3: Emerging infectious diseases and global health security -Anti-viral countermeasures (strategy and R&D) -Improving the laboratory's role in emergency health response (Discussion of issues like dedicated high-containment hospital room' in the lab vs. working with local hospital for care of a LAI patient outside the lab) <i>Chair –Peiyong Shi (Professor, University of Texas)</i>	

08:30-08:55	George F. Gao (Academician, Institute of Microbiology, CAS) <i>TBD</i>
08:55-09:20	Jiahai Lu (Professor, Zhongshan School of Medicine, Sun Yat-Sen University) <i>A One Health Strategy for Responding to Emerging Infectious Diseases</i>
09:20-09:45	Zhengli Shi (Principle Investigator, Wuhan Institute of Virology, CAS)
09:45-10:10	Mifang Liang (Principle Investigator, National Institute for Viral Disease Control and Prevention) <i>Epidemiological characteristics of Severe fever with thrombocytopenia syndrome (SFTS) in China from first discovery</i>
10:10-10:20	Tea break
10:20-10:45	Linda Saif (Academician, Ohio State University) <i>Animal Coronaviruses: Global Threats to Humans and Animals</i>
10:45-11:10	Chengfeng Qin (Professor, The Academy of Military Medical Sciences) <i>Existing weapons against the emerging Zika virus</i>
11:10-11:35	David Swayne (Director, USDA Southeast Poultry Research Laboratory) <i>Avian Influenza at the Animal-Human Interface: Global Challenges for Scientific Contributions to Control</i>
11:35-12:00	Gong Cheng (Professor, Qinghua University) <i>Non-structural Protein 1: A Key for Flavivirus Transfer from Host to Vector</i>
12:00-12:25	Peiyong Shi (Professor, University of Texas) <i>Rapid response to Zika virus emergence: Diagnostics and vaccine development</i>
12:25-14:00	Lunch
<p>Session 4: High-level biosafety Laboratory: construction, commissioning, and sustainment</p> <ul style="list-style-type: none"> -Requirements for high containment labs in China and the U.S and discussion of recent projects -Community relations and public communication -Should biocontainment labs have clinical facilities? -Biocontainment maintenance and operations / Outbreak response / Importance of reference collections and reagents <p>Chair – Zhiming Yuan (Principle Investigator, Wuhan Institute of Virology, CAS)</p>	

14:00-14:25	Peijun Zhai (Division Director, China National Accreditation Service for Conformity Assessment) <i>Brief and Status Quo on China Accreditation for Biosafety Laboratories</i>
14:25-14:50	Thomas Ksiazek (Professor, Galveston National Laboratory) <i>Biocontainment operations and maintenance and UTMB training for other containment facilities</i>
14:50-15:15	Zhigao Bu (Director General/Principle Investigator, Harbin Veterinary Research Institute, the Chinese Academy of Agricultural Sciences) <i>Design, Construction and Operation of National High Containment Facilities for Animal Diseases Control and Prevention</i>
15:15-15:40	Yunzhang Hu (Principle Investigator, Institute of Medical Biology Chinese Academy of Medical Sciences) <i>TBD</i>
15:40-16:00	Tea break
<p>Session 5: Biosafety, biosecurity and bioethics</p> <ul style="list-style-type: none"> - New technology for laboratory biological risk management - Improving response to incidents at the lab (fire, police, environment release and paramedic) - Improving biosafety and biosecurity training - Laboratory leadership, culture and ethics <p><i>Chair –David R. Franz (Professor, US Army Medical Research Institute of Infectious Diseases)</i></p>	
16:00-16:25	Zhiming Yuan (Principle Investigator, Wuhan Institute of Virology, CAS) <i>Biosafety and Bioethical for Infectious Disease Control Research</i>
16:25-16:50	Thomas Ksiazek (Professor, Galveston National Laboratory) <i>Regulatory issues affecting the operation of a functional high containment lab: Obtaining, shipping, maintaining and exchanging high hazard pathogens in today's regulatory environment. Does the science matter?</i>
16:50-17:15	David R. Franz (Professor, US Army Medical Research Institute of Infectious Diseases) <i>Leadership, Responsibility and Progress</i>
17:15-18:00	<p>Conclusions</p> <p><i>Chair –Zhiming Yuan (Principle Investigator, Wuhan Institute of Virology, CAS)</i></p> <p>James Le Duc (Professor, Galveston National Laboratory)</p> <ul style="list-style-type: none"> - Conclusions from the meeting and discussion on possible

		<p>roles of CAS and NAS to enhance cooperation between the U.S. and China on Emerging Infections, Laboratory Safety and Global Health Security</p> <p>- Concluding remarks by Zhiming Yuan and David Franz</p> <p>Co-chairs</p>
	18:00-20:00	Dinner
Friday 19th May	09:00-10:00	Leave for Zhengdian Park, Wuhan Institute of Virology, CAS
	10:00	A visit to Wuhan P4 Lab and discussions