

Greetings from the President

Greetings to you all and hope you started well with your new semester in the New Year. I would like to thank Ching-Hua for her leadership in advancing our association in the past year and want to welcome our new members. Since the founding of our association in 2007, we have enjoyed steady growth in membership. Currently, we have 42 regular and affiliated members from 36 universities in USA, Canada, Ireland, Singapore, and Hong Kong. Our members range from full, associate, assistant professors, to postdoc and graduate students.

For 2011, I invite your continued support to and participation in the work of CAPEES to further advance our mission and to explore new opportunities for further development of our association. To promote interaction and networking among our members for professional growth, we plan (1) to increase the frequency of our newsletters for enhanced communications among our members; (2) to compile and distribute a membership directory, (3) to facilitate member gatherings at professional conferences whenever opportunities permit. To further develop our association, I encourage we start the dialogue on this question: what unique activities CAPEES should and can do to benefit our members beyond what our members are already getting from other professional associations? Your opinions are very important. After all, CAPEES is by, for, and of each of us. Please feel free to email your thoughts to any of CAPEES officers.

In this 1st newsletter of 2011, you will find who has recently joined our CAPEES family, news of our members, funding opportunities and conferences, professional and life stories of three featured members. You are invited to submit your news about promotions, awards, new appointments etc. to our editors. You may also publish your job openings and call for papers etc. to our association's web site. In

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addition, please get prepared for sharing with us your stories as featured members in future newsletters. I hope you enjoy reading this issue and want to thank Zhiyong (Jason) and Xingmao (Samuel) for their great work in putting it together.

Wish you all the best for a fulfilling year in 2011 and look forward to working with you.

Jianpeng Zhou, 2011 President

Member News

Please visit www.capees.org for more details

Dr. Samuel (Xingmao) Ma Received USDA grant

Dr. Samuel Ma, assistant professor in the Department of Civil and Environmental Engineering, Southern Illinois University Carbondale, recently received a grant from USDA to study the impacts of engineered nanoparticles on agricultural crops. Dr. Ma will share the \$1.5 million grant with three other colleagues over the next five years. The researchers will examine how engineered nanoparticles affect the health of agricultural crops and our food safety and security.

Dr. Yuefeng Xie, a winner of the China Thousand Talents Program

Yuefeng Xie, Professor of Environmental Engineering at The Pennsylvania State University and the founding president of CAPEES, has been selected by China's Thousand Talents Program. Dr. Xie has started to work at his Alma Mater, Tsinghua University, in May 2010 and is in process to establish a research group in emerging water contaminant control. He will again spend Spring 2011 and Summer 2011 at Tsinghua University. Dr. Xie looks forward to meeting CAPEES members at

Tsinghua and welcomes your suggestions in teaching and research collaborations.



Dr. Xie at Waterton Lakes National Park, Canada, Fall, 2010.

New Members

Dr. Tao Yan (University of Hawaii at Manoa)
Dr. Yongsheng Chen (Georgia Institute of Technology)
Dr. Yang Liu (University of Alberta)
Dan Liu (Temple University)

Funding Opportunities and Proposal Deadlines

NSF Broadening Participation Research Initiation Grants in Engineering (BRIGE)

This is a program designed specifically for young beginning scientists without previous major funding experiences.

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503160&org=CBET&from=home

NSF Environmental Engineering and Sustainability Program

This NSF program will have windows open during Feb and March. The program specializes in four major areas: energy for sustainability, environmental engineering, environmental health and safety of nanotechnology and environmental sustainability.

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=501033&org=CBET&from=home

DOD ESTCP Program

The FY 2012 solicitations from the Environmental Security Technology Certification Program (ESTCP) was released.

<http://www.serdp.org/Funding-Opportunities/SERDP-Solicitations>

Upcoming Conferences

2011 ACS National Spring and Fall Meetings

The 2011 national American Chemical Society (ACS) spring meetings will be held in Anaheim, CA from March 27th to March 31st, 2011. The fall meeting will be held in Denver, CO from Aug 28th to Sept 1st, 2011. In addition to the national meetings, ACS holds many regional meetings and technical divisional meetings which could be interesting to CAEESP members. Detailed information on the upcoming conferences organized by ACS can be found through the following link:

<http://portal.acs.org/portal/acs/corg/content>

Dr. Ching-Hua Huang will be glad to organize a CAPEES gathering at the ACS Spring meeting. Please feel free to contact her for any details.

Dr. Zhiyong Ren will be organizing a symposium session titled "*Emerging Issues and Solutions for Sustainable Water and Wastewater Systems*" in ACS Fall meeting at Denver. He will be very pleased for you to present your research in the

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symposium. The abstract deadline is March, 21st, 2011.

2011 AEESP Education and Research Conference

The 2011 Association of Environmental Engineering and Science Professors (AEESP) will be held at University of South Florida, Tampa from July 10th to July 12th, 2011. The conference will focus on six themes:

1. water depletion and degradation;
2. waste management;
3. urban sustainability;
4. climate change
5. environmental issues around the world
6. energy

Detailed information can be found on the AEESP website and the news letter release from AEESP.

<http://www.aeesp.org/>

ASM 2011 Conference in New Orleans, LA

111th American Society for Microbiologists (ASM) annual meeting will be held in New Orleans, LA from May 20th to May 24th, 2011. The conference will be kicked off with several concurrent workshops focusing on topics such as food born diseases, clinical bacteriology, and environmental microbiology. Detailed information on conference registration, venues and presentations can be found from the following conference link from ASM.

<http://gm.asm.org/>

ACE11 will be Held in Washington, D.C.

The 130th annual American Water Works Association (AWWA) meeting will be held in Washington, D. C. from June 12th to June 16th, 2011. The conference will cover topics ranging from water infrastructure, water reservation, water sustainability, mathematical modeling to emerging water contaminants. The conference

will feature several free seminars on US government export programs. Detailed information on registration and other information can be found through the following link:

<http://www.awwa.org/ACE11/index.cfm?navItemNumber=54546>

2011 WEFTEC Exhibition and Conference

The 2011 Annual Water Environment Federation Technical Exhibition and Conference (WEFTEC) will be held at Los Angeles Convention Center, October 15th-19th, 2011. Online registration will open on March 31, 2011. Detailed information can be found on WEF website.

<http://www.weftec.org/>

International Water Association Events in 2011

The international water association (IWA) will host a series of conferences in 2011. A few conferences potentially interesting to the CAEEPS members are:

Applications of nanotechnology in the water sector from May 15th to 18th, 2011 in Monte verita, Switzerland;

National Organic Matter Research, From Source to Tap and Beyond from July 27th-29th, 2011 in Irvine, CA;

Biofilm Conference 2011, Processes in Biofilms from Oct 27th to 30th, 2011 in Shanghai, China.

More information about the conferences can be found from:

http://www.iwahq.org/Home/Events/IWA_events/Event_listing/2011/

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Featured Member of the Issue

Dr. Chuanwu Xi/奚传武

Assistant Professor
University of Michigan
School of Public Health
Phone: (734) 615-7594
Email: cxi@umich.edu



1. My career path

I did my Ph.D. research in the area of molecular plant-microbe interactions at the University of Leuven in Belgium then moved to University of Illinois at Urban - Champaign working in the field of Environmental Microbiology with a focus on drinking water. It was at the UIUC, I was exposed to engineering systems and started looking at structure and functions of microbial communities. After joining the Faculty of University of Michigan, my research focus is on biofilms and its impact on health and water quality.

2. My current interests and projects

My research focuses on biofilms, water quality and human health. Research in my laboratory uses molecular and genomic tools to understand molecular mechanisms of persistence and resistance of pathogens in natural, engineered and industrial environments; transmission routes of pathogens from the environment to host and their impacts on health of general public and industrial workers. I am particularly interested in the role of biofilms in these processes and the development of novel approaches for biofilm control in industrial and medical settings. My research has been funded by the National Sciences Foundation, Center for Diseases Control and Prevention and the National Institutes of Health. My research on the spread of antibiotic resistance in the urban water cycle attracted very broad public media attentions including a featured story in Scientific American and featured news in Canadian Broadcast Company. Recently my research group published a paper in PLoS ONE on a newly identified "inter-domain" signal that regulates bacteria-host interactions.

3. Courses I normally teach

I currently teach Water Quality Assessment and Management, Microbiology in Environmental Health, Water Quality and Human Health in the Great Lakes Basin.

4. My professional activities

I am a member of several professional associations including American Society for Microbiology, American Water Works Association, International Water Association, Association of Environmental Engineering and Science Professors (AEESP), International Society of Microbial Ecology.

5. My hobbies and the major attractions and cultural environment of my area and/or community

I enjoyed trying new things and play badminton, biking, running and sightseeing regularly and playing with my kids. Ann Arbor is a lovely town with rich culture, art and natural attractions nearby and a great place to raise family. The



nature of our job does allow us to travel around. Most importantly, the Great Lakes are within one-hour-driving reach for a good combination of work and life.

6. My thoughts on key factors that lead to my career today and suggestions to our young members

Work hard, keep eye open and be ready to leave your comfort zones. I learn this from microorganisms I am studying and fascinated about. Do not be shy in a good sense and do reach out to your fellow researchers for help. You might be surprised if you ask. Good physical health is critical to enable you to cope with never-ending demands and commitments from your work and personal life. Biking to work every day in the summer time is one of my favorite routines (Michigan is too snowy and slippery for biking in the winter). I enjoy sweating myself for about an hour a day (even there is a deadline next day) to get rid of stress and be happy.

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Featured Member of the Issue

Dr. Yinjie Tang/唐寅杰

Assistant Professor
Energy, Environmental
and Chemical Engineering
Washington University
School of Public Health
Phone: (314) 935-3441
Email: yinjie.tang@seas.wustl.edu



1. My career path

I got my BS (1997) and MS (1999) degrees in the Department of Bioengineering at Tianjin University (advisor: Xue-Ming Zhao). I did my PhD in Chemical Engineering (advisor: Barbara Krieger-Brockett) at the University of Washington in Seattle (1999~2004). My PhD research was on transport and remediation of PAHs in marine harbor sediments. I did my postdoc research at Lawrence Berkeley National Laboratory (Advisor: Jay Keasling). My postdoc work was on isotopomer based microbial pathway analysis. I started my faculty job at Washington University in July of 2008. I got the NSF CAREER Award for microbial metabolism study and Ralph E. Powe Junior Faculty Enhancement Award for nanobiotechnology research in 2010.

2. My current research interests and projects

I worked on nanoparticles' antimicrobial activities. I also help other research lab characterize microorganisms using isotopomer-based method.

3. Courses I normally teach

Metabolic Engineering, Process Control and Dynamics

4. My professional activities

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AICHE and ASM

5. My hobbies and the major attractions and cultural environment of my area and/or community

I played tennis in Frontenac tennis club every week.

6. My thoughts on key factors that lead to my career today and suggestions to our young members

I was very lucky to join Jay Keasling group at UC Berkeley as a postdoctoral fellow. I met many good collaborators who taught me a lot of new technology at Berkeley. I think good advisors and collaborators will lead you to a successful career

7. Suggestions to our members about career, balance between work and life, and other subjects of interests

Doing research is a tough job. The support from friends and family is always important



Bounty hunters in Tang Group (2010)

Featured Member of the Issue

Dr. Kung-Hui (Bella) Chu
/朱宮慧

Assistant Professor
Zachry Department of Civil
Engineering
Texas A&M University
Tel: (979)845-1403
E-mail: kchu@civil.tamu.edu



1. My career path

I obtained my MS degree from Cornell University and my Ph.D. degree from the University of California at Berkeley. During my graduate studies, I had the opportunities to study both anaerobic and aerobic biodegradation of persistent environmental pollutants, particularly chlorinated solvents. My interests in development and application of culture-independent techniques, including compound specific stable-isotope fractionation and molecular tools, to better understand contaminant-degrading microbial community and structure can be dated back to my postdoctoral work at UC Berkeley and the first two years at the University of Tennessee as an Assistant Professor. In 2005, I joined the Environmental and Water Resource Program of Civil Engineering at Texas A&M University. My research work on estrogen biodegradation has been highlighted by C&N News and Science News.

2. My current research interests and projects

My research interests are in environmental biotechnology. My current research areas are broad, including biodegradation and biotransformation of emerging contaminants (endocrine disrupting compounds, pharmaceuticals, explosives, perfluorinated compounds),

applications of molecular tools to address microbial risks in drinking water, assessment of best management technologies for stormwater runoff, and optimization of biofuel production.

3. Courses I normally teach

I teach introduction course to Environmental Engineering, advanced biological treatment processes, and graduate level laboratory course for environmental measurement. In the past, I also offered environmental microbiology and advanced biodegradation and bioremediation courses.

4. My professional activities

I am a member of American Society of Microbiology (ASM), AEESP, ACS, and OCCESA. I go to General meetings for ASM and Battelle bioremediation conferences.

5. My hobbies and the major attractions and cultural environment of my area and/or community

I enjoy movies, music, and reading. Texas is famous for its BBQ, Mexican food, and football. Everything in Texas is "Big", including size of the student body and campus of Texas A&M University. Texas A&M University is a land-grant, sea-grant and space-grant university, consisting of more than 48,000 students. The University is located in College Station which is a college town in the center of three major cities, Houston, Austin, and Dallas. It is about 90 miles north from Houston, TX



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