



華美化學學會

Chinese American Chemical Society

2010 Tri-State CACS Annual Symposium

Opportunity for Chemistry in A New Decade

- Its Impact On and Around Us

Co-sponsored by
The Department of Medicinal Chemistry
Ernest Mario School of Pharmacy, Rutgers University

8:30 am – 4:00 pm
Saturday, June 26, 2010

Busch Campus Center
Rutgers University
604 Bartholomew Rd
Piscataway, NJ 08854

www.tristatecacs.org



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Acknowledgments

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Forward

Welcome to the 2010 Tri-State CACS Annual Symposium!

On behalf of the Tri-State CACS board, we would like to express our sincere gratitude to our sponsors and to our volunteers for their support and contributions to the cause of our organization.

Over the past decade, chemical and pharmaceutical industries have gone through many changes. Despite steady demands for their products, the industry's current business models are both economically and operationally challenged. Meanwhile, the world is witnessing a fast economic development in Asia, particularly in China and India. The American chemical and pharmaceutical industries as a whole and the Chinese-American chemical professionals in particular, are presented with unprecedented challenges and opportunities in this rapid changing environment. One of the major CACS missions is to promote dialogues and collaborations in chemical and pharmaceutical R&D organizations between the US and China. This year's theme, "Opportunity for Chemistry in A New Decade – Its Impact on and Around Us", continues on last years' theme and reflects some of the current industry trends in this changing business and economic environment.

We are extremely excited to have a group of high-caliber R&D leaders from major chemical & pharmaceutical companies to share their visions and thoughts about the future growth drivers for our industries in the current environment. Among them are Dr. Ji Zhang, VP & Head of Clinical Sciences and Operations, sanofi-aventis, Dr. Robert V. Slone, R&D Director, Dow Chemical Company, Dr. Scott Grossman, VP & Scientific Director, Biocon Bristol-Myers Squibb Research Center, Ms. Ingrid Cole, VP of Technical Solutions, Henkel Industrial Adhesive Business, Dr. Tim Barckholtz, Director, Petroleum Science Lab, Corporate Strategic Research, ExxonMobil, Dr. Xiaochun Luo, Group VP & CSO of Global R&D, Avon and Charles Ye, CEO of Acesys Pharmaceutical Inc..

In addition, we are honored to have the current president of the American Chemical Society, Professor Joseph Francisco, to give a plenary presentation. And for a third year, we will also feature a vendor show.

We hope you will enjoy the symposium and the programs that we put together for you!

For over a quarter of a century, CACS has continued to promote cohesion among Chinese-American chemical professionals, and to address their common interests and concerns. In addition to holding events like this, Tri-State CACS has continued Young Chemist Awards to help cultivate interests in chemical sciences among high school students. We will also continue our mentoring program to help junior colleagues gain a quick footing in their respective careers in the US.

Please join us as we face new challenges and new opportunities!

Duxi Zhang, PhD
President

Fangbiao Li, PhD
President-Elect

Xuhong Sunny Wang
Immediate Past-President



Program Schedule

8:30 Registration / Breakfast & Coffee

Morning Session

(Session Chairs: Fanweng Zeng & Min Liu)

9:00 Opening Remarks, Dr. Duxi Zhang, President, Tri-State CACS

9:10 Professor Joseph Francisco, President, American Chemical Society
"The Chemical Enterprise: Thinking and Acting Globally"

9:45 Dr. Ji Zhang, VP & Head of Clinical Sciences and Operations, sanofi-aventis
"Broaden Our Horizon, Increase Our Value"

10:20 Dr. Robert V. Slone, R&D Director, Dow Chemical Company
"R&D in China, from Potential to Performance"

10:55 Coffee Break & Networking

11:30 Dr. Scott Grossman, VP & Scientific Director, Bicon Bristol-Myers Squibb Research Center
"Challenges and Opportunities for Chemists in a Complex and Changing Industry"

12:05 Ms. Ingrid Cole, VP of Technical Solutions, Henkel Industrial Adhesive Business
"Sustainability Initiatives in the Adhesive's Industry"

12:40 Lunch

Afternoon Session

(Session Chairs: Sunny Wang & Wendy Zhong)

1:40 Dr. Tim Barckholtz, Director, Petroleum Science Lab, Corporate Strategic Research, ExxonMobil
"The Outlook for Energy: A View to 2030"

2:15 Dr. Xiaochun Luo, Group VP & CSO of Global R&D, Avon
"Leadership and Leadership Quality --- A Personal Perspective"

2:50 Vendor Show, Ice Cream Party and Prize Drawing

3:20 Charles Ye, CEO of Acesys Pharmaceutical Inc
"Drug Discovery Platform at China Medical City Built by Acesys Pharmatech"

3:55 Closing Remarks, Dr. Fangbiao Li, President-Elect, Tri-State CACS
Prize Drawing



Vendor Show (all day event)
9:00AM – 4:00PM

(Session Chairs: Wendy Zhong, Fanwen Zeng, & Bin Wei)

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Waters	http://www.waters.com/
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Cerno BioScience	http://www.cernobioscience.com/
Sepax	http://www.sepax-tech.com/
Fragomen	http://www.fragomen.com/



Symposium Logistic Contacts

Programs	Duxi Zhang, Sunny Wang, Fangbiao Li
Vendor Show	Wendy Zhong, Fanwen Zeng, Bin Wei
Registrations	Teng Xu, Jinquan Dong, Bin Wei, Xiaoqiu Wu & Volunteers
Food/Beverage Services	Bin Wei, Wenni Li, Zhongli Gao, Zhigang Li, Yanhui Yang
Photography	Teng Xu, Honghong Li
Communications	Daniel Wang

Abstracts & Speaker Biosketches

Professor Joseph Francisco, President, American Chemical Society

“The Chemical Enterprise: Thinking and Acting Globally”



Abstract

We continue to see that accelerated technological, environmental, societal and financial drivers are pushing the chemical enterprise worldwide, and chemists working in it, to increasingly think and act globally. There are challenges and opportunities for our shared discipline and its enterprise. What are characteristics of a ‘global-ready’ chemistry practitioner? Do we have that new workforce of chemical scientists, engineers, and teachers capable of working with and across different cultures to tackle global societal challenges? What are the global knowledge and skill sets needed by universities, companies and research labs in our countries to be successful in a globally competitive research, development and innovation environment? For chemistry and the chemical enterprise to flourish, will it become normal for chemistry students, teachers, researchers and professionals to spend some part of the year in someone else's country? What is the role of the national chemical society to help enable this transnational mobility of chemists? Finally, how do we foster a greater public understanding and appreciation for the transformative power of chemistry?

Bio

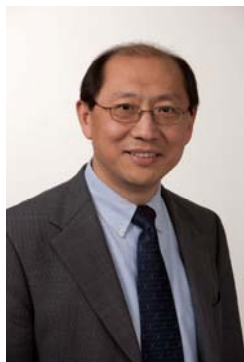
Joseph S. Francisco completed his undergraduate studies in Chemistry at the University of Texas at Austin with honors, and he received his Ph.D. in Chemical Physics at the Massachusetts Institute of Technology in 1983. Francisco spent 1983-1985 as a Research Fellow at Cambridge University in England, and following that he returned to MIT as a Provost Postdoctoral Fellow. In 1986 he was appointed Assistant Professor at Wayne State University. In 1991 he was a Visiting Associate in Planetary Science at California Institute of Technology. He accepted an appointment as Professor of Chemistry and Earth & Atmospheric Sciences at Purdue University in January, 1995, and in 2006 was appointed as the William E. Moore Distinguished Professor of Earth and Atmospheric Science and Chemistry at Purdue University. He served as President for the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCCChE) from 2005-2007. In 2008 he was elected to the Presidential succession of the American Chemical Society. He will serve as President-Elect in 2009, President in 2010, and Immediate Past President in 2011.

He has published over 400 peer-reviewed publications in the fields of atmospheric chemistry, chemical kinetics, quantum chemistry, laser photochemistry and spectroscopy. He was appointed by the Secretary of the Navy to be member of the Naval Research Advisory Committee for the Department of Navy (1994-1996). He has served as a member of the Editorial Advisory Boards of *Spectrochimica Acta (Part A)*; *Advances in Environmental Research*; *Journal of Molecular Structure Theochem*; and the *Journal of Physical Chemistry*. He is a co-author of the textbook *Chemical Kinetics and Dynamics*, published by Prentice-Hall.

Professor Francisco has received numerous national and international honors for his academic accomplishments. He was recently awarded an Alexander von Humboldt U.S. Senior Scientist Award by the German government, as well as being appointed a Senior Visiting Fellow at the Institute of Advanced Studies at the University of Bologna, Italy. He has been appointed to and served on committees for the National Research Council, National Science Foundation, American Chemical Society, and the National Aeronautics and Space Administration.

Dr. Ji Zhang, Vice President & Head of Clinical Sciences and Operations, sanofi-aventis

“Broaden our Horizon, Increase our Value”



Abstract

Pharmaceutical industry has gone through very significant changes and is continuing to transform itself. Inevitably, such deep transformation upsets the status-quo, and disrupts traditional career paths (if there is one). The impact of this transformation is further amplified by the rapid development of R&D capabilities and growth of market share in pharmerging countries, particularly in China, India, and to a lesser extent, in Russia and Korea. What is, then, the value proposition of our current jobs and future career considerations?

In this talk, I will share the key missions of a clinical development and operations organization, describe core values various groups bring, and through this example, discuss with you the competitive advantages of a WW organization with core competencies from different regions of the world. I believe Chinese Americans continue to play critical roles in this transformation, and should take opportunities to lead.

Bio

Ji Zhang is Vice President, head of Clinical Sciences and Operations, a Scientific Core Platform in sanofi-aventis. In this position, Ji directs over two thousand researchers and professional employees in research sites in over 30 countries in the set up, conduct, data collection and management, statistical analysis and reporting of clinical trials conducted world-wide in over 60 countries. His platform also includes an integrated clinical and experimental pharmacology group, technology information group, quality and continuous improvement group and a business office. As an executive committee member of R&D, he works with others to formulate and execute R&D strategies, investment strategies, as well as general company procedures and governance policies.

Before assuming the above role, Ji was head of International Clinical Operations; and prior to joining sanofi-aventis, he was Senior Director, Clinical Biostatistics, Merck Research Laboratories in Rahway, NJ.

Ji Zhang holds a B.S. and M.S. in Mathematics, Probability and Statistics from Peking University, China; and a Ph.D. in Statistics from North Carolina State University. He was author or co-author of over 40 peer reviewed scientific papers. He is very active in professional associations in various leadership and service roles, and is an elected Fellow of the American Statistical Association.

Ji is also active in his community volunteering for several worthy causes. He served on the Huaxia Chinese School (Edison) Board of Trustees for 3 years and was chair for one year. He is currently serving on the Board of Directors, PAMS Foundation of North Carolina State University, and successfully co-led the effort to establish a fund for a named (RA Fisher) professorship at NC State University.

Dr. Robert V. Slone, R&D Director, Formulation Science – Core R&D, The Dow Chemical Company

“R&D in China, from Potential to Performance”



Abstract

This presentation will focus on the technical and cultural aspects of building and maintaining a high performance R&D group in China. Moving a team from the time of hiring, through training and retention to ultimately joining a global research community on equal footing with other major regional R&D facilities is a key challenge many technology-related corporations face. This presentation will share some of the successes and pitfalls along that path. Some examples that illustrate regional innovations and capabilities will be presented as well.

Bio

Rob Slone is currently the R&D Director for Formulation Science in the Core R&D group of the Dow Chemical Company. His group is responsible for new formulation design and includes the High Throughput Research groups of Dow Chemical. Rob has recently returned to Spring House, Pennsylvania from a two year assignment in Shanghai, China during which he led the hiring, training and development of the Adhesives and Functional Polymers R&D team in Shanghai.

Rob is the author of the “Acrylic Ester Polymers” and “Methacrylic Ester Polymers” chapters of the Kirk-Othmer Encyclopedia of Chemical Technology and 2010 Encyclopedia of Polymer Science and Technology. He holds 18 patents.

Rob joined the Rohm and Haas Company (now Dow Chemical) in 1997 after receiving his Ph.D. in Inorganic Chemistry from Northwestern University and received his BS Chemistry degree from the University of North Carolina at Chapel Hill in 1993.

Dr. Scott Grossman, Vice President & Scientific Director, BioCon Bristol-Myers Squibb Research Center

“Challenges and Opportunities for Chemists in a Complex and Changing Industry”



Abstract

Indisputably, the pharmaceutical industry is struggling financially. This struggle is often attributed to a lack of innovation. This speaker contends that innovation is alive and well. However, we must continue to challenge our basic assumptions and approaches, while remaining true to essential core principles. All scientists, including chemists, must challenge themselves to look at their roles in new ways. Select cases will be discussed which highlight these points. In all cases the principles of scientific rigor, ambitious goals, and excellence are present. Yet each case illustrates how questioning old paradigms with a fresh perspective leads to valuable, tangible benefits.

Bio

Dr. Grossman received his B.S. degree in Biochemistry and an MS in Environmental Toxicology, both from the University of Wisconsin-Madison, and a Ph.D. in Pharmacology from the Medical University of South Carolina. He was also a Post-doctoral Fellow in the Laboratory of Bio-Organic Chemistry at the National Institutes of Health.

From 1987 to 1998, Dr. Grossman worked in the Safety Assessment Department of Merck Research Laboratories rising to the position of Director, Biochemical Toxicology and Investigative Toxicology.

Seeking a ‘new career’ in Drug Discovery, he joined DuPont Pharmaceuticals in 1998 as Director, Research Support. Following the DuPont acquisition by Bristol-Myers Squibb Co. in 2001, Dr. Grossman became Executive Director of Metabolism and Pharmacokinetics at BMS.

In 2003 Dr. Grossman was made Vice President, Pharmaceutical Candidate Optimization at Bristol Myers Squibb Co. This group comprises disciplines of Analytical and Bioanalytical Sciences, Biotransformation, Pharmacokinetics, Pharmaceutics, and Toxicology in Discovery and/or Development. This group’s mission is to minimize drug attrition through optimization, improved selection, and problem-solving during the development of drug candidates.

Dr. Grossman is currently VP, Scientific Director, for the Biocon Bristol-Myers Squibb Research Center in Bangalore India.

Ms. Ingrid Cole, Vice President of Technical Solutions, Henkel Industrial Adhesive Business

“Sustainability Initiatives in the Adhesive’s Industry”



Abstract

Sustainability has been a key initiative in the adhesive’s industry. Retailers such as Wal-Mart have been a key driver in sustainability. They have set the standards for the products and packaging materials that can be sold in their stores by developing scorecards and rating their vendors to determine preferred supplier status. The adhesive is generally one component in the construction of a final product. Therefore the industry must be focused on developing products that can adhere to new more sustainable materials as well as initiatives around improving the sustainability of the adhesive. This has led to several innovations that address both issues. Sustainability is broad but can be broken down into five focal areas which include initiatives in energy and climate, water and waste water, materials and waste, health and safety and social progress. In this presentation examples of innovative solutions will be discussed from the five focal areas.

Bio

Ms. Ingrid Cole graduated from the University of Florida with a BS in Chemistry and a MS in Materials Science and Engineering. She started her career in 1992 at National Starch and Chemical as a product development chemist developing adhesives for packaging and converting applications. She has held a number of product development management roles supporting packaging, converting, tapes, labels, hygienics and construction markets. She holds several patents in the area of low application temperature adhesives.

She is currently VP of Technical Solutions at Henkel in their Industrial Adhesives Business. This group’s primary objective is to deliver value through products, service and process improvements at our customers as well as deliver efficiency and quality improvement in their manufacturing plants.

Dr. Tim Barckholtz, Director, Petroleum Science Lab, Corporate Strategic Research,
ExxonMobil Research and Engineering Co.

“The Outlook for Energy: A View to 2030”



Abstract

Each year, ExxonMobil prepares a projection of global energy consumption based on expected growth in population, economic development, technology progress, and so on. In this talk, I will present the results of this year's Energy Outlook, and analyze the results in a variety of ways. Energy consumption is expected to grow at an annual rate of about 1.2%, driven by growth in population (0.9%/year) and economic development (2.7%/year). Energy consumption is expected to be stagnant in the developed countries, although the mix of energy types will be changing. However, energy consumption will be dramatic in the developing world, driven by rapid economic growth in China, India and other countries. While renewable sources of energy will grow at significant rates, in 2030 they will still represent a fairly low percentage of the total primary energy sources. The talk will include discussion of advanced vehicle technology, economic impacts of CO₂ management, and supply/demand factors.

Bio

Tim holds a Ph. D. in chemistry from The Ohio State University. Following a post-doctoral fellowship at the National Institute of Standards and Technology / University of Colorado, Tim joined ExxonMobil Research and Engineering in 2001, initially working in advanced combustion technology. In 2005, he was part of a team that commercialized a process to reduce NO_x emissions from fluidized catalytic crackers, the largest point sources of NO_x in refineries with FCC units. In 2006, he relocated to the company's Fairfax, VA office where he held positions in EMRE's planning division. While in Fairfax, he transferred to ExxonMobil Refining & Supply, where he coordinated the crude purchasing and supply chain logistics for the company's refineries in Texas and Louisiana that have a combined processing capability of 1.6 million barrels per day. In 2009, he returned to Clinton, NJ and assumed his current position as manager of the company's R&D efforts in the front end of the pipeline for refining and lubricants.

Dr. Xiaochun Luo, Group Vice President & Chief Scientific Officer, Global Research & Development, Avon

“Leadership and Leadership Quality --- A Personal Perspective”



Abstract

In the corporate world, Asian Americans are generally viewed as a highly technical group, while we were not viewed equally highly as leaders. The talk will provide my personal point of view on what leadership means and what are some of the behaviors that portrait one as a leader. I will also discuss some behaviors that are barriers preventing us from being effective leaders.

Bio

Dr. Xiaochun Luo is recently appointed as Group Vice President and Chief Scientific Officer leading Avon's Global Research and Development efforts responsible for development and support of the company's worldwide product lines.

Xiaochun joined Avon in December of 1999 as Director for Global Hair Care. She was promoted to Executive Director in May of 2001 and to Vice President of New Technology and New Product Innovation in December of 2002. In May of 2010 she was promoted to her current position to lead the Global R&D organization in its drive for innovation and development of breakthrough technologies in beauty products.

Prior to joining Avon, Xiaochun spent close to ten years in Global R&D of Procter & Gamble Company. She spent three years in Japan establishing and leading a New Technology organization for P&G's Asian-Pacific region. Xiaochun holds a Ph.D. in Biochemistry from Purdue University and has authored numerous scientific papers, book chapter and patents in biological research fields.

Mr. Charles Ye, CEO of Acesys Pharmaceutical Inc.

“Drug Discovery Platform at China Medical City Built by Acesys Pharmatech”

Abstract



Acesys Pharmatech is a CRO company focusing on chemistry related service in drug discovery. Our service includes custom synthesis, library design and synthesis, FTE based medicinal chemistry, process development and cGMP kilo production. With our recent acquisition of API Inc in New Jersey, we are capable of manufacturing cGMP quality APIs in USA. In order to expand our service and provide ONE-STOP service to our customers, we built the small molecule drug discovery platform at China Medical City (CMC) in Taizhou, which includes biology, medicinal chemistry, analytical, formulation and cGMP pilot plant for APIs and finished drug with different dosage forms. We are looking for talented and experienced scientists in medicinal chemistry, process development, and formulation area to join us or for collaboration.

Bio

Mr. Charles Ye, CEO of Acesys Pharmaceutical Inc, had six years of experience in Medicinal Chemistry and Financial Analyst at Schering Plough Research Institute in New Jersey before he founded Acesys Pharmatech in 2004. He has extensive experience on library design, process, and data analysis. He is the inventor of various patents in 4 different disease areas in CV/CNS area. He became a Financial Analyst at Schering after he received his MBA in Finance in 2002. He worked on many capital projects and was a member of a CEO-led VEI (Value Enhancement Initiative) committee. He designed and set up a Small Molecule Drug Discovery Platform at China Medical City (CMC) and now serves as the director. He organized several international meetings and local meetings in Nanjing China. He is now the Vice Chairman of Nanjing Association for Overseas Chinese Scholars (NAOCS) and Vice Chairman of Technology Association of Nanjing Science Park.



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