The 26th World Chinese Traders Convention

Conference Proceedings

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P1 – Panel Session 1 (03:30 pm – 05:00 pm, Saturday, 9/13/08): Emerging IT

Moderator

Dr. Ko-Yang Wang

IBM Distinguished Engineer
IBM Global Business Services
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BIOGRAPHY

Dr. Ko-Yang Wang is an IBM Distinguished Engineer and a technical executive in the Services Oriented Architecture (SOA) Center of Excellence (COE) and the Enterprise Integration, Application Innovation Services, IBM Global Business Services. He specializes in SOA, Web Services, SOA Strategy, SOA/IT Governance, IT Strategy, Enterprise Architecture, Enterprise Integration, Reference Architecture, SOA for Packaged Applications, Business Performance Transformation, Enterprise Portals, Innovation Management, Asset Reuse and Knowledge Management. He leads the SOA for ISVs and the SOA for Packaged Applications initiatives for the COE. He also serves as the SOA leadaer for Industrial Sector. He has worked with clients in Automotive, Chemical & Petrolium, Electronics, Financial, Insurance, Telecom, Pharmaseutical, and Government industries on strategy, roadmap, and architecture for integrating their SAP, custom and legacy applications and Portal, Information Management and Knowledge Management. He led engagement teams to develop integration architectures and implement SAP/enterprise integration projects leveraging SOA. Dr. Wang is a recognized technical leader in IBM and led more than 20 corporate level task forces and strategic initiatives. He recently led an IBM Academy of Technology Study on "SOA for Leadership in the Enterprise Applications and Enterprise Integration Markets" to help IBM develop market leading approach for SOA for SAP/Oracle/Legacy applications. He also led a cross-IBM SOA ISV Evaluation Workgroup for developing a repeatable process for establishing a high performance ISV ecosystem.

Prior to his current roles, he was the Research & Innovation Executive of IBM Global Services. He founded the Enterprise of the Future effort in 2002 and led a team of 80 IBM Fellows, Distinguished engineers and SMEs to develop 3-5 years business visions and technology game changers for IBM and

its clients. He initiated IBM's Services Oriented Technology Outlook effort in 2004 and co-led the Business Performance Transformation Technology team in 2005. He is a thought and technology leader in Sense & Respond Value Net. He published more than 40 book chapters, journal papers, articles, conference proceeding papers and IBM white papers. He co-authored 4 patents.

From 1997 to 1999, he was a Principal in IBM Consulting Group, responsible for the Knowledge Management (KM) and asset reuse solutions which were deployed to more than 100,000 users. He led his team to win the 1998 and 1999 Giga Excellence Awards on KM and Workflow Management. From 1991 to 1996, he was a Research Staff Member and a team leader in IBM T.J. Watson Research Center, responsible for the R&D of advanced compiler and programming environment technologies. He was recognized as IBM Distinguished Engineer in 2000. He received IBM's Outstanding Technical Achievement Award in 1996 for leading the runtime system team of the IBM HPF compiler for SP2. He received an IBM Consulting Group Division award in 1997 for his leadership on KM. From 1988 to 1991, he was a senior research faculty and manager at the Department of Computer Science (CS), Purdue University. He received his Ph.D. and M.S. of CS from the department of CS, Purdue University.

P1 – Panel Session 1: Emerging IT

"Enterprise of the Future and Global Value Nets"

Dr. Grace Lin

CTO, Director of Innovation and Emerging Solutions
IBM Distinguished Engineer, Member of IBM Academy of Technologies
Public Sector Supply Chain Management
IBM Global Business Services
INFORMS Fellow
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ABSTRACT

What will the Enterprise of the Future look like? How the emerging busine models and technology impact your enterprise? According to a recent study conducted by IBM which interviewed more than 1000 CEOs and Public Sector leaders around the world, the Enterprise of the Future is:

- **Hungry for change:** "We have seen more change in the last 10 years than in the previous 90."—*Ad J. Scheepbouwer, CEO, KPN Telecom*
- **Innovation beyond customer imagination:** "Developing countries grow gradually at first, then suddenly emerge as large markets. We must be prepared to respond quickly."—*Yasuo Inubushi, President, Kobe Steel*
- **Globally Integrated:** "A few years ago, we were a national company; now we're a global company. Our integrated supply chain must adapt to meet demand in 50 countries. We're going to have to bring people in from the outside."—*Jim Guyette, President and CEO, Rolls-Royce North America*
- **Genuine, not just generous:** "Our company is investing extensively in corporate social responsibility. We need to be a reference in this domain. As the leader of the luxury industry, we have to stay ahead."—*Yves Carcelle, chairman and CEO, Louis Vuitton*
- **Disruptive by nature:** "For us, enterprise model innovation is primarily about having the right business model to enter other markets and secure new capabilities."—*Andrew Brandler, CEO, CLP Holdings Limited*

In this talk, Dr. Grace Lin will share the insights IBM gained from its CEO study and an earlier Enterprise of the Future internal study. She will also discuss the emerging trends and advances in business models and technology and how they can be used to accelerate changes for the enterprises of the future. She will also discuss the global value nets and how they will evolve and impact your business.

BIOGRAPHY

Dr. Grace Lin is the Chief Technology Officer and the Director of Innovation and Emerging Solutions for Public Sector Supply Chain Management, IBM Global Business Services (GBS), an IBM Distinguished Engineer, a member of the IBM Academy of Technology, and an INFORMS Fellow. Prior to her work with IBM GBS, she served as a Senior Manager for Supply Chain Management and e-Business Optimization at the IBM T. J. Watson Research Center. Dr. Lin initiated IBM's Sense-and-Respond Value Net efforts and founded the IBM Value Chain Innovation Center. She led her team to win the 1999 INFORMS Franz Edelman Award – the top honor in OR/MS in Practice - for saving IBM $750M with their Extended Enterprise Management. She was listed as one of the six "Supply Chain Gurus" in Forrester's 2002 SCM Report, and served on the "Thinking with the Gurus" Panel from the 2004 eAsia Forum. Dr. Lin has co-authored more than 50 technical articles and six patents, with another five pending. She is a frequent speaker at various international conferences, universities and company sessions. She has twice been elected INFORMS VP, Practice, and served as Conference Chair for both INFORMS' 2003 and 2004 ORMS in Practice, and IEEE's 2006 SOLI Conference. Dr. Lin has served on the editorial boards of Operations Research, M&SOM, IJBPIM, and IJSOI, on National Science Foundation panels in the US, Canada, and Ireland, as well as on a number of university boards/panels. Dr. Lin and her team's advanced work have been recognized in such publications as Forbes Magazine, China News, Information Week, INFORMS News, ComputerGram, Electronic Guyer, Computer Reseller, Stanford Supply Chain Forum Newsletter, Forrester, and CNET.

Dr. Lin received an M.S. in Applied Math and a Ph.D. in Industrial Engineering from Purdue University. She also received an M.S. in Mathematics and a B.S. in Mathematics from Tsing-Hua University, Taiwan.

P1 – Panel Session 1: Emerging IT

"Green Technology and Service"

Dr. Jen-Yao Chung

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ABSTRACT

Climate change, rising energy costs and resource constraints are increasing becoming global issues for government and business. These global issues are driving new trends in the development of Green Technologies. Renewable energy sources, advanced water management, efficient resource recycling, waste reduction, intelligent utility networks, intelligent transportation systems and energy efficiency in data center are gaining strong interests and supports from both the public and private sectors. One of the key initiatives is the application of Green Technology to supply chain management. The objective of this green application is to reduce the carbon emission of company operations. In this talk, we will discuss the new wave of green technology and the emerging services and business on green assessment, diagnosis and consulting, tools and modeling, manufacture process and re-design. We will conclude with our views on future trend, directions and research topics on Green Technology, Green Computing, and Green Services.

BIOGRAPHY

Jen-Yao Chung received the M.S. and Ph.D. degrees in computer science from the University of Illinois at Urbana-Champaign. He is the senior manager for Industry Technology and Solutions, IBM T. J. Watson Research Center, responsible for identifying and creating emerging solutions with focus on "Green Computing and Business". Before that, he was Chief Technology Officer for IBM Global Electronics Industry. Before that, he was senior manager of the electronic commerce and supply chain department, and program director for the IBM Institute for

Advanced Commerce Technology office. Dr. Chung is co-Editor in Chief of the International Journal of Service Oriented Computing and Applications (published by Springer). Dr. Chung is the co-founder and co-chair of the IEEE technical committee on Electronic Commerce. He has served as general chairs and program chairs for many international conferences. He has authored or co-authored over 160 technical papers in published journals or conference proceedings. He is a Fellow of IEEE and a senior member of ACM.

P1 – Panel Session 1: Emerging IT

"Trends Driving Network Growth and Consolidation in the Enterprise"

Buck Gee

Vice President, Business Development
Data Center Switching Technology Group
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170 West Tasman Drive
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ABSTRACT

Driven by the increasing need for more data storage, new applications, and the accelerated rate of competitive process changes in large enterprises, modern data centers are outstripping customers' ability to power, house, and manage the system. As result, physical complexity is driving the need to consolidate data center consolidation and move to unified data center networks. Additionally, large data center complexity is driving more virtualization into the network.

BIOGRAPHY

Mr. Gee is Vice President of Business Development for Cisco's Data Center Switching Technology Group. Previously, Mr. Gee was Vice President and General Manager of Cisco's Data Center Business Unit. In that role, he was responsible for Cisco's storage switching product line and led Cisco's growth to become the market leader in enterprise SAN switching. He joined Cisco with its 2004 acquisition of Andiamo Systems where he was President and CEO.

Mr. Gee is a 36-year veteran of the computer and communications industry with broad experience in high growth technology markets ranging from advanced microprocessors to business computers to high-speed networking. He has held management positions in engineering, marketing, business development, and operations in Hewlett Packard, National Semiconductor, 3Com, Crescendo Communications, Cisco, Com21, and Iospan Wireless. He

has also taught computer and electrical engineering courses at Stanford University and Howard University.

He received BS and MS degrees in electrical engineering from Stanford University in 1972 and an MBA from the Harvard Business School in 1980.

P2 – Panel Session 2 (05:30 pm – 07:00 pm, Saturday, 9/13/08): Energy

"Smart Grid and MicroGrid Development"

Moderator

Professor Wei-Jen Lee

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ABSTRACT

The electrical power system in the US has been named as "the supreme engineering achievement of the 20th century" by the National Academy of Sciences. While the power system is a technological marvel, it is also one of the major contributors of greenhouse gases. With the concern of global warming, the emission of greenhouse gases has drawn attention among the community. Many efforts have been made to fight climate change. The United Nations Framework Convention on Climate Change (UNFCCC) set out an obligation for all its signatory parties to establish national programs for the reduction of greenhouse gases. Building on the UNFCCC framework, the Kyoto Protocol (KP) sets legal binding limits on greenhouse gas emissions in industrialized countries and envisages market-based cap-and-trade mechanisms for achieving cost-effective emission reduction. The implementation of KP and some other constraints have changed the plan and operation of power systems significantly.

The current grid system of transmission lines was built on the assumption that all electricity would be generated at very large central plants. The system is inefficient because it is difficult for the system to adjust to the demand patterns efficiently. Upgrading the grid to meet the electricity needs and environmental constraints for the 21st century will be a vital step towards ensuring our economic viability and national security in the coming years.

The modernization of the electricity infrastructure leads to the concept of "smart grid". The desired features of the smart grid include:

- Seamless interconnection of low environmental impact new generation technologies
- Establish architectural framework and communication backbone to enable interoperability and self-healing of all components and systems including existing legacy systems
- Develop advanced components (intelligent electric devices) & operating concepts
- Develop advanced monitoring & customer demand management system for efficient usage of electricity
- Improve the accuracy of modeling & simulation tool planning and operational support for normal and contingency situations

A comprehensive smart grid design should cover both top-down and bottom-up approaches. For the current centralized generation and transmission system, upgrading the power delivery infrastructure, enforcing the system security requirement, and increasing data exchange

capabilities are well known techniques to improve the reliability and the controllability of the power system. For the bottom-up approach, one of the most important features is its ability to support a more diverse and complex network of energy technologies. Specifically, it will be able to seamlessly integrate an array of locally installed, distributed power sources with smaller CO_2 footprint, such as fuel cells, photovoltaic, and wind generation, into the power system. Since most renewable energy technologies are intermittent in nature, it may have negative impact on the system security and service quality when they are direct connected into the grid. MicroGrid with hybrid generation techniques and advanced control schemes will have a smaller impact at Point of Common Coupling (PCC) and is one of the best approaches to support the future smart grid development.

This presentation discusses the current development of smart grid and MicroGrid and identifies the opportunities for new areas of research and development. The presentation concludes with the listing of issues needed to be addressed to ensure successful integration procedures that will eventually create new structures of efficient, modular, and environmentally sound electricity infrastructure that will have an impact nationally as well as globally.

BIOGRAPHY

Wei-Jen Lee (S'85-M'85-SM'97-F'07) received the B.S. and M.S. degrees from National Taiwan University, Taipei, Taiwan, R.O.C., and the Ph.D. degree from the University of Texas, Arlington, in 1978, 1980, and 1985, respectively, all in Electrical Engineering.

In 1985, he joined the University of Texas, Arlington, where he is currently a professor of the Electrical Engineering Department and the director of the Energy Systems Research Center.

Prof. Lee has been involved in research on renewable energy, power flow, transient and dynamic stability, voltage stability, short circuits, relay coordination, power quality analysis, real time diagnostic and prognostic system, power system monitoring, control, and protection system, intelligent electric devices, and deregulation for utility companies. He has served as the primary investigator (PI) or Co-PI of over seventy funded research projects totaling over 6.5 million dollars. He has published more than forty journal papers and more than one hundred conference papers. He has refereed numerous technical papers for IEEE, IEE, and other professional organizations.

Prof. Lee is a Fellow of IEEE and registered Professional Engineer in the State of Texas.

P2 – Panel Session 2: Energy

Dr. Chung-Wen Lan

General Director, Photovoltaics Technology Center
Industrial Technology Research Institute, Taiwan, R.O.C.
e-mail: cwlan@ntu.edu.tw

BIOGRAPHY

Education

- 1991 materials science Ph.D. in University of Wisconsin-Madison, USA
- 1989 materials science M.D. in University of Wisconsin-Madison, USA
- 1986 chemical engineering MSC in National Taiwan University ,Taiwan

Professional Experience

- 1998~present Professor in ChE of National Taiwan University
- 2004.02 visiting professor of Aix-Marseille University, France
- 2002.07~2002.09 visiting professor of Kyushu University, Japan
- 2000.02~2000.03 visiting scientist of Rossendr of Research Center, Germany
- 2000.08~2000.09 visiting professor of Gakushuin University, Japan
- 1996.08~1998.02 Professor of National Central University
- 1997.02~1997.08 visiting scholar of Massachusetts Institute of Technology
- 1992.08~1996.07 associate Professor of National Central University
- 1991.09~1992.07 associate researcher of University of Wisconsin-Madison, USA

Awards/Recognitions:

- ❖ Co-Chair of 4th International Workshop on Modeling in Crystal Growth, Fukuoka, Japan, Oct. 5-7, 2003.
- ❖ National Science Council excellent award., 2004.
- ❖ Associate Editor in Chief, J. ChIChE, 2000-2006.
- ❖ International Editor, Korean Journal of Crystal Growth, 2001

- Editor, Fluid Dynamics and Materials Processing, 2005-2007.
- participated in association at internal and overseas and SCI national journal ,position and mission
  - Asian Conference on Crystal Growth and Crystal Technology , the 4th chairman (2005-2007)?
  - one of Asian Conference on Crystal Growth and Crystal Technology originator,sitting dispensatory directorate?
  - SCI journal deputy editor in chief and managing editor)?
  - SCI journal council dispensatory secretary
  - International Editor, Korean Journal for Crystal Growth
  - Principle Guest Editor, Journal of Crystal Growth (SCI journal), (Special Issue on Modeling in Crystal growth, Vol. 266, 2004)
  - Editorial Board, Fluid Dynamics and Materials Processing

P2 – Panel Session 2: Energy

"Clean-Coal Electric Power Generation Systems"

Professor Minking K. Chyu

Leighton Orr Chair Professor and Chairman
DOE-NETL Residence Fellow
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ABSTRACT

Coal has abundant reserve and has been the top energy source for electricity generation. Coal today is responsible for nearly 60% of electricity need worldwide. At current rates of consumption, coal could meet global energy needs for at least two more centuries. However, coal is also a major air polluter. It accounts for a significant proportion of greenhouse gas emissions. With new clean-coal technologies, the world energy community can use this valuable resource to make future coal-based power systems more efficient and free of emission. Technologies under development for future coal-based power plants include (1) coal gasification, (2) advanced turbines and combustion technologies, (3) integrated fuel cells, and (4) carbon capture and sequestration. Plant of this nature will ultimately combine advanced systems with effective carbon management and coal fuels technology to co-produce electricity and hydrogen with near-zero emissions. To support such technological developments, various segments in the global energy community have been performing a wide range of advanced research, focusing on breakthroughs in materials, processing and manufacturing, sensors and controls, pollutant formation and removal, and advanced computational processes. This presentation will begin with introduction of important energy technologies relevant to clean coal power generation. This will be followed by examining critical issues and significant advances in various constituting components of potential future systems. Emphasis will be directed to exploring the technical insight as well as practical significance in coal gasifier, advanced turbines and combustion processes, solid oxide fuel cells, and carbon capture and sequestration.

BIOGRAPHY

Dr. Minking K. Chyu is presently the Leighton Orr Chair Professor and Chairman of Mechanical Engineering and Materials Science Department at the University of Pittsburgh. He received his Ph.D. degree from the University of Minnesota in 1986. He was a faculty member at Carnegie Mellon University for 14 years before joining the University of Pittsburgh in 2000. His primary research area lies in thermal and material issues relating to energy, power and propulsion systems. Professor Chyu is a recipient of four NASA Certificates of Recognition for his contribution on space shuttle program, Air Force Summer Research Fellow, Department of Energy Oak Ridge Research Fellow, and DOE Advanced-Turbine-System Faculty Fellow. He is a Fellow of the American Society of Mechanical Engineers (ASME), Associate Fellow of American Institute of Aerospace and Aeronautics (AIAA), and a US delegate to the Scientific Council of the International Centre of Heat and Mass Transfer (ICHMT). He was named the Engineer of The Year by the ASME Pittsburgh Chapter in 2002. In 2007, he was appointed as Institute-of-Advanced-Energy-System (IAES) Fellow by the National Energy Technology Laboratory (NETL), Department of Energy. He serves as an Associate Editor for the Journal of Heat Transfer, ASME, Guest Editor for AIAA Journal of Propulsion and Power in Turbine Science and Technology, an Advisory Board Member of International Fluid Machinery and Systems, and a Foreign Editor for the Journal of Chinese Society of Mechanical Engineers.

P2 – Panel Session 2: Energy

"The Status and Outlook of Photovoltaic Industry"

Dr. Sean Shao-Hwa Wang

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BIOGRAPHY

Dr. Sean Shao-Hwa Wang is the President of ITRI International (San Jose, California), which is ITRI's presence in North America, beginning from June 2005. He joined ITRI as the General Director of IEK in July 2004. Before joining ITRI, for about 15 years, Dr. Wang was with SRI International/SRI Consulting (Menlo Park, California), where he developed and implemented international proprietary projects on technology evaluation, feasibility study, strategic planning, identification of new business opportunities, licensing strategy, buy-or-build issue, and new plant investment decision. He was the managing editor of *Process Economics Program* (*PEP) Yearbook*, which contains production economics for 900+ processes to produce more than 550 chemical products in the U.S., Germany, Japan, and China. He also authored 32 proprietary reports on the evaluation of technologies in the areas of energy, petrochemicals, and electronics chemicals and materials. Earlier, Dr. Wang was associated with M.W. Kellogg (now KBR) and Morgantown Energy Technology Center (now the National Energy Technology Laboratory) of U.S. Department of Energy.

P2 – Panel Session 2: Energy

"MEMS and Batteryless Remote Sensors"

Professor Jung-Chih Chiao

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ABSTRACT

MEMS (microelectromechanical system) devices offer advantages such as miniaturization, low losses, high sensitivity, high-speed actuation, low power consumption and integrated functionality. MEMS devices are particularly attractive for power-efficient mechatronics or energy harvesting integration. In our work, we have developed RF MEMS devices on polymer substrates to address the loss and cost challenges in high frequency systems. The RF MEMS devices provide low insertion losses and high quality factors in radio-frequency tunable elements. The polymer materials demonstrate its advantages on significant costs, volume and weight reduction, while maintaining high performances. Power efficient MEMS-based sensors can also be integrated with radio-frequency energy harvesting and wireless communication for remote sensing applications including homeland security, border controls, hazardous site or environment monitoring, and biomedical applications. A batteryless wireless long-term implant for detecting GERD (gastroesophageal reflux disease) episodes as an example of such remote sensing applications will be discussed. The batteryless endoluminal sensing telemeter (BEST™) inside one's body harvests radio-frequency energy to detect impedance variation in esophagus in vivo and identify reflux episodes. Without the needs of batteries, the implant can stay for a long period of time.

BIOGRAPHY

JC Chiao is a Professor of Electrical Engineering, University of Texas at Arlington. He received his Ph.D. degree in Electrical Engineering at California Institute of Technology in 1995, served as a Research Scientist in the Optical Networking Systems and Testbeds Group at Bell Communications Research (Bellcore), Assistant Professor at University of Hawaii – Manoa, and Product Line Manager and Senior Technology Advisor at Chorum Technologies. He joined the Electrical Engineering Department, UT-Arlington in 2002 as an Associate Professor and became a Professor in 2008. He is also a graduate faculty in the Biomedical Engineering

Program at UT-Southwestern Medical Center since 2002 and a UT-Arlington IRB (Institutional Review Board) member since 2006.

Dr. Chiao is a co-founder of American Academy of Nanomedicine. He has been the chairs for the SPIE International Micro- and Nanotechnology: Materials, Processes, Packaging, and Systems Conference; SPIE International Device and Process Technologies for Microelectronics, MEMS, and Photonics Conference; SPIE Europe International Smart Sensors, Actuators and MEMS Conference; Photonics West, Micromachining and Microfabrication Process Technology Conference; and Photonics Asia, MEMS/MOEMS Technology and Applications Conference. He has been a technical committee member for SPIE Nano- and Micro-Sensors for Bio-Systems Conference, and IEEE International Microwave Symposium, RF MEMS subcommittee. Dr. Chiao is an Associate Editor for ASME Journal of Nanomedical Science and Engineering, and with the editorial board of the Elsevier journal Nanomedicine: Nanotechnology, Biology and Medicine.

As the first Product Line Manager at Chorum Technology, a startup company funded in 1998, he was responsible for more than 17 products and more than 22 customers. The product Optical Harmonic Equalizer won the 2001 FiberOptic Product News Technology Award. Dr. Chiao has published 3 book chapters and 137 peer-reviewed conference and journal papers. He has been editing one book series, edited 2 books and 11 proceedings, given 36 invited speeches, received 4 awarded and 6 pending patents. His research work has been mentioned in press releases, web-blogs, on-line news, newspapers, radio, national television and magazines for more than 116 times.

Dr. Chiao's research interests include MEMS (microelectromechanical system) RF and optical devices (RF MEMS and MOEM), nanofabrication and applications, wavelength-division-multiplexing (WDM) optical components, microwave/millimeterwaves, antennas, quasi-optical systems, flexible sensors and medical micro devices. His medical device research includes implantable GERD (gastroesophageal reflux disease) sensors, integrated pain management systems, prostate cancer metastasis studies, and RFID-embedded medical sensors.

P3 – Panel Session 3 (09:00 am – 10:30 am, Sunday, 9/14/07): Biotech

Moderator

Professor Li-San Wang

Assistant Professor of Pathology and Laboratory Medicine
Institute on Aging / Penn Center for Bioinformatics
University of Pennsylvania
e-mail: lswang@mail.med.upenn.edu

BIOGRAPHY

Li-San Wang received his B.S. (1994) and M.S. (1996) in Electrical Engineering from the National Taiwan University. He received his M.S. (2000) and Ph.D. (2003) from the University of Texas at Austin, both in Computer Sciences, and was a postdoctoral fellow at the University of Pennsylvania between 2003 and 2006. Currently he is an Assistant Professor of Pathology and Laboratory Medicine and a fellow of the Institute on Aging, University of Pennsylvania. Dr. Wang's research interests include phylogenetics, comparative genomics, and microarray analysis. He has authored twenty six peer-reviewed book chapters and journals on computational biology and bioinformatics, and served on the program and organizing committees of several international workshops and conferences.

P3 – Panel Session 3: Biotech

"US Biotech/Pharmaceutical Trends and Business Implications for Taiwan Industry"

Dr. Tsang-Bin Tzeng

Senior Director, Clinical Pharmacology, AstraZeneca Pharmaceutical, Wilmington, DE 19850
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ABSTRACT

In US, search for new biologic/chemical entities to fill in the pipeline and to launch into the market is still the first priority for the big pharma and biotech corporations. Due to their low productivity, urgency for collaborating, licensing, and contract opportunities with big pharma in new drug, repurposing, new-formulation, or value-added research has increased greatly. Offshore contract research/manufacture continues to grow in a fast pace. Generic drug market is expected to keep growing strongly for the next several years to come because of the pressure of the payee. Pharmaceutical merge and acquisition still carry on and now are extended to generic industry with impressive scales in finance. The past success of protein/peptide drugs has made not only generic firms but also big pharma heavily invest in biotech, vaccine and even biosimilar with the anticipation of the approval of US biosimilar guideline in 2009. Personalized medicine advocated by FDA opens up manifold unprecedented business opportunities in diagnosis and medical devices. The business implications for Taiwan pharmaceutical industry and personal recommendations on how to grasp the emerging opportunities in response to these recent development trends in the US will be discussed and proposed.

BIOGRAPHY

Tsang-Bin Tzeng is the Senior Director, Clinical Pharmacology at AstraZeneca Pharmaceutical. Prior to joining AstraZeneca he worked as an independent consultant, as a university faculty at School of Pharmacy, Temple University, and as a senior scientist at Drug Metabolism, Abbott Laboratory. He established and ran a Phase I clinical pharmacology unit in Florida and was involved in funding a clinical research organization in Taiwan. He received his BS in Pharmacy

from Taipei Medical University, MS in Pharmaceutics from National Taiwan University, and PhD in Pharmaceutics from State University of New York at Buffalo. He was a member of the Committee of Policy Group of Transition Team for New Jersey Governor-Elect Jon Corzine during his transitional period. He is now an Adjunct Associate Professor at Rutgers University and Advisory Council for School of Nurse, UMDNJ. Currently, he serves as a board director for Educational Opportunity Fund, New Jersey Government, for Chinese Institute of Engineers-USA, and as the President & Chairman of the board of director of Monte Jade Science and Technology Association at Mid Atlantic. Also, he is the President-elect of SAPA-Great Philadelphia and Executive Council for SAPA-Headquarter. He was in the editorial board of Journal of Chromatography for several years.

P3 – Panel Session 3: Biotech

"Electronegative LDL—a new treatment target for atherosclerosis"

Professor Chu-Huang (Mendel) Chen, MD PhD

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ABSTRACT

To the general public, low-density lipoprotein cholesterol (LDL-C) is known for its nickname "bad cholesterol". The American Heart Association has long defined LDL-C elevation to be the treatment target coronary artery disease (CAD). We recently found a special kind of bad LDL in patients with high cholesterol, and our data have convinced us that this special LDL particle is responsible for most of the bad things LDL does to our blood vessels. This particular lipid, which we call L5, is the most electronegative subfraction of LDL. More recently, we found that L5 is also present in patients with type 2 diabetes mellitus, metabolic syndrome, or chronic cigarette smoking even when their LDL-C concentrations are not high. L5, when present, usually represents only a vey small portion of the total LDL, but it is the only type of LDL that has the ability to hurt the cells of our blood vessels. This makes us think that L5 is the target we should be looking for in people with CAD risks, whether or not their blood LDL-C concentrations are high. Endothelial cells are the cells that pave the innermost lining of our blood vessels. Atherosclerosis, a chronic process that progresses over a span of many years, starts from loss of normal function or shape of endothelial cells. When endothelial cells are exposed to L5, they can longer behave properly and will undergo a process called apoptosis, which leads to their eventual death. Endothelial progenitor cells (EPCs) are another kind of cells that we need when tissue repair or new blood vessel formation are necessary. L5 stops young EPCs from growing into mature EPCs, therefore severely impairs the body's recovery from diseases like CAD. We are currently studying in depth the chemical and physical properties of this new LDL particle and are working on defining it as a new target for treatment or prevention of CAD.

BIOGRAPHY

Dr. Chu-Huang (Mendel) Chen received his MD from Kaohsiung Medical College (now Kaohsiung Medical University) in 1978 and then completed 3 years of residency training in

pathology at Chang Gung Memorial Hospital in Taiwan, before going to the United States for graduate study. He received his PhD in Physiology from Texas Tech University Health Sciences Center in 1986. After that, he completed further residency training in Internal Medicine at University of Maryland, followed by a clinical fellowship in Cardiology at Baylor College of Medicine. Currently, he is an Associate Professor of Medicine at Baylor College of Medicine, which is a major component of the world famous Texas Medical Center in Houston, Texas. With his dual training background in both clinical and basic sciences, Dr. Chen now leads a research team that uses state-of-the-art technologies to study the frontier health issues, in particular those related to the heart and blood vessels. Dr. Chen is a reviewer of many top journals in the field of heart disease and has published many papers in these journals, including *Circulation, Circulation Research, Diabetes, ATVB (Arteriosclerosis, Thrombosis, and Vascular Biology), Endocrinology, Journal of Lipid Research, Current Opinion in Lipidology*, among others. In addition to focusing on his work at Baylor College of Medicine in the United States, Dr. Chen also devotes a great portion of his time training young scientists from Taiwan, Japan, and China, as well as maintains an active collaborative relationship with many medical schools and research institutes in Taiwan.

P3 – Panel Session 3: Biotech

"Medical Micro Devices"

Professor Jung-Chih Chiao

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ABSTRACT

This talk will focus on the development of MEMS in vivo imaging tools, sensor-integrated wireless devices for disease diagnosis and therapeutic treatment and microfluidic platforms for cancer study at UT-Arlington. To be specific, in vivo near-infrared optical coherent tomography fiber scanners for skin cancer and plague in artery screening, in vivo near-infrared optical fiber probes to assist neurosurgery, wireless GERD (gastroesophageal reflux disease) sensor implants, integrated neurosensor and neurostimulator pain management systems and SIDS (sudden infant death syndrome) monitoring systems will be discussed.

BIOGRAPHY

JC Chiao is a Professor of Electrical Engineering, University of Texas at Arlington. He received his Ph.D. degree in Electrical Engineering at California Institute of Technology in 1995, served as a Research Scientist in the Optical Networking Systems and Testbeds Group at Bell Communications Research (Bellcore), Assistant Professor at University of Hawaii – Manoa, and Product Line Manager and Senior Technology Advisor at Chorum Technologies. He joined the Electrical Engineering Department, UT-Arlington in 2002 as an Associate Professor and became a Professor in 2008. He is also a graduate faculty in the Biomedical Engineering Program at UT-Southwestern Medical Center since 2002 and a UT-Arlington IRB (Institutional Review Board) member since 2006.

Dr. Chiao is a co-founder of American Academy of Nanomedicine. He has been the chairs for the SPIE International Micro- and Nanotechnology: Materials, Processes, Packaging, and Systems Conference; SPIE International Device and Process Technologies for Microelectronics, MEMS, and Photonics Conference; SPIE Europe International Smart Sensors, Actuators and MEMS Conference; Photonics West, Micromachining and Microfabrication Process Technology Conference; and Photonics Asia, MEMS/MOEMS Technology and Applications Conference. He has been a technical committee member for SPIE Nano- and Micro-Sensors for Bio-Systems

Conference, and IEEE International Microwave Symposium, RF MEMS subcommittee. Dr. Chiao is an Associate Editor for ASME Journal of Nanomedical Science and Engineering, and with the editorial board of the Elsevier journal Nanomedicine: Nanotechnology, Biology and Medicine.

As the first Product Line Manager at Chorum Technology, a startup company funded in 1998, he was responsible for more than 17 products and more than 22 customers. The product Optical Harmonic Equalizer won the 2001 FiberOptic Product News Technology Award. Dr. Chiao has published 3 book chapters and 137 peer-reviewed conference and journal papers. He has been editing one book series, edited 2 books and 11 proceedings, given 36 invited speeches, received 4 awarded and 6 pending patents. His research work has been mentioned in press releases, web-blogs, on-line news, newspapers, radio, national television and magazines for more than 116 times.

Dr. Chiao's research interests include MEMS (microelectromechanical system) RF and optical devices (RF MEMS and MOEM), nanofabrication and applications, wavelength-division-multiplexing (WDM) optical components, microwave/millimeterwaves, antennas, quasi-optical systems, flexible sensors and medical micro devices. His medical device research includes implantable GERD (gastroesophageal reflux disease) sensors, integrated pain management systems, prostate cancer metastasis studies, and RFID-embedded medical sensors.

P4 – Panel Session 4 (1:40 pm – 3:10 pm, Sunday, 9/14/08): Finance

Moderator

Kunshan Huang

Vice President, HSBC
e-mail: kunshan.a.huang@us.hsbc.com

BIOGRAPHY

Kunshan currently works for HSBC Emerging Market New York desk as VP quantitative analyst focusing on interest rate derivatives, credit derivatives, and structure products in Latin America markets. He was previously Associate Director of Barclays Capital IT supporting corporate bond and credit derivative business. He has been working in financial industry many years. He started his career from Financial Science Corporation, a software company specialized in commercial paper issuing and trading systems. Later, he worked at JP Morgan FX/FX Option IT, and Deutsche Bank Emerging Market IT. He has broad knowledge in trading, pricing analytics, and market risk/credit risk management. Kunshan graduated from Tsing Hua University with B.S. of Electrical Engineering, M.S. of Computer Science from Columbia University, and MBA from Stern School of Business at NYU. Kunshan serves at the board of Tsing Hua Alumni Association at Greater New York and is one of the founders of New York Taiwanese Finance Association.

P4 – Panel Session 4: Finance

"From U.S. Subprime Crisis to Global Recession
Are we ready to solve the puzzle yet?"

Dr. Ted Hong

CEO, Beyond Bonds
e-mail: ted@beyondbond.com

ABSTRACT

- The subprime crisis in 2007 not only triggered a series of credit crunch but also jeopardized the global financial markets.
- What had it happened in 2007?
- Why do we care?
  - Downward housing price,
  - Low interest rate,
  - High inflation,
  - High unemployment rate,
  - Low GDP growth,
  - Low consumer spending,
  - High stock market Volatility,
  - Recession vs. Soft-landing
  - Economic impacts: job, purchasing power, business income
  - Social impact: election, foreign investment in US
- How did it happen?
  - Underestimated Fat-tailed price distribution for Value at Risk (VaR) analysis
  - Over-stretch of trading and lending leverage for derivatives and securitized products such as CDO and SIV
- What're the opportunities?
  - Short-term arbitrage vs. Long-term holding
  - Are we trying to catch a falling knife or bottom of the market is near?
  - Capital injections from vulture funds and/or sovereign wealth funds
  - Forthcoming events

BIOGRAPHY

Dr. Ted Hong is currently the president of Beyondbond. He has spent more than twenty years developing the structured finance business. Formerly, Dr. Hong was a director at Nomura Securities International and oversaw engineering, underwriting, and securitization business in the residential mortgage and commercial real estate areas. During 1990's, Nomura's real estate group was the largest issuer in the U.S. commercial mortgage backed securities industry and "jump-started the national real estate market" according to the Fortune Magazine. Prior to Nomura, he was at Citicorp and Imperial Corporation of America.

For the last few years, Dr. Hong has given numerous speeches in Asia with respect to the securitization markets for various conferences and major financial institutions, such as Central Bank of China in Taiwan and People's Bank of China. For last two years, Dr. Hong has

invited Dr. Robert Engle, the 2003 Nobel laureate in Economics, to visit Taiwan and China for several public speeches. As a result, Dr. Hong has become the senior advisor and consultant for financial service industry and government regulators in Asia.

Dr. Hong received his Ph.D. in Economics from University of California at San Diego. His specialized research topic was the non-stationary volatility modeling in the time series area. Dr. Hong had several research articles jointly published with Dr. Robert Engle, his Ph.D. dissertation advisor.

Dr. Hong is originally from Taiwan and earned his bachelor degree from National Taiwan University. His research works have been published in various advanced fixed income handbooks. His research piece such as “An Options Approach to Commercial Mortgages and CMBS Evaluation and Risk Analysis” has been repeatedly quoted and published.

P4 – Panel Session 4: Finance

"Globalization Equity Market"

William Yeh

Founder, Chairman, and Chief Executive Officer,
Genesis Securities, LLC.
e-mail : william@gndt.com

ABSTRACT

Globalization of Equity Exchanges
- NYSE / Euronex
- NYSE /ARCA / Tokyo Stock Exchange options
- Nasdaq / OMX

Electronic Trading and DMA
- US Exchanges
- ECNs
- Dark Pools

Innovative Equity Products
- ETF

Difficulties of Globalization
- Local Regulations & Tax Differences
- Currency & Credit Risks
- Clearing & Settlements
- DMA - not every exchange is

Market players - Broker/Dealers
- IB, Etrade, SogoTrade, Genesis Securities , Marco Polo, etc…

Unique ETF features of Sogotrade.com

BIOGRAPHY

William Yeh is the Founder, Chairman and Chief Executive Officer of Genesis Securities, LLC. , a registered U.S. self-clearing broker/dealer and leading provider of execution and clearing services for institutional, professional, and individual traders and investors. Yeh is also CEO of Genesis Futures, LLC. and Genesis Capital Group, LLC.

Prior to founding Genesis Securities in 1999, Yeh was a successful futures trader and was named one of the top five Commodity Trading Advisors of 1997 by *Managed Accounts Reports* (*MAR*). Genesis Securities' core business is in trade execution services and the development of advanced trading technology. Genesis's proprietary professional trading platform, LASER, is the first and only order entry platform to receive NASDAQ's Platinum Class Certification each quarter since 2004 and is renowned for fast order execution time, which is measured in milliseconds (1/1000 of a second). Genesis has direct connectivity to all US exchanges, ECNs and dark pools and has also established trading at the Toronto Stock Exchange. In July of 2008, Genesis executed of 2.2 billion shares and over 8.5 million trades, equivalent to 3%-5% of NASDAQ and 1%-2% of the NYSE's daily trading volume. The dollar value of executions through Genesis each day is the equivalent to about 60% of the Taiwan Stock Exchange, about 20% of the Hong Kong Stock Exchange and about 20% of the Shanghai Stock Exchange. In 2008, Genesis expanded its operations into the retail brokerage space by launching SogoTrade.com. SogoTrade.com delivers Genesis technology to retail investors and offers ultra-low online trading commissions and fast executions through a web-based trading platform. SogoTrade also offers a Chinese language trading platform, Chinese language stock research center and premium ETF research tools.

In 2006, Yeh was awarded the Taiwan Overseas Chinese Entrepreneur Award by the Taiwanese Government. He holds a masters degree in Mechanical Engineering from U.C. Berkeley and a bachelor's degree in Physics from the City University of New York. Yeh holds FINRA licenses 4,7,63,24,27,55.

Yeh resides in Mill Neck, New York with his wife and 2 daughters.