

Proceedings of the China-India-US Workshop on Science, Technology and Innovation Policy

Appendix B – Selected Biosketches

Chinese

Chen Jin

Chen Jin is Professor of Management at College of Public Administration, Zhejiang University. He is also the Deputy Director of National Institute for Innovation Management, Zhejiang University. He got his Ph.D. in 1994. In 1998, he was a Visiting Scholar in Alfred Sloan School of Management at MIT. He also visited SPRU, University of Sussex, Brighton, UK, among others. Dr. Chen is a deputy Chairman, Research Association of Science & Science and Science & Technology Policy of China. Also He is the Vice President, China's Association of Management of Technology (CAMOT). His research areas include technology and innovation management, science, technology and education policy.

Chen is a Principal Investigator of a variety of research projects in China as well as abroad. The projects he is undertaking include indigenous innovation pattern of large enterprises in China, managing complex product systems; managing radical innovation in China; internationalization of technological innovation for Chinese enterprises; managing open innovation in China, university and industry links for indigenous technological innovation. He is the Editor, Journal of Knowledge-based Innovation in China and the Associate Editor, International Journal of Technology Marketing. He has published several books and more than 180 papers on management of technology and innovation. Journal outlets include IEEE transactions on Engineering Management, Technovation, Journal of Technology Transfer et al. He was awarded the Excellent Young Teacher, Ministry of Education, P.R. China, Huo Yingdong Prize, Ministry of Education, P.R. China, and Excellent Youth Fund by National Science Foundation of China.

Duan Yibing

Duan Yibing has been working in the Institute of Policy and Management at the Chinese Academy of Sciences (CAS) since 1997. He is Associate Professor of Technology Policy and Management (2001-) and Head of the Division of Science and Technology Policy (2001-2006) in the Institute. His research fields include commercialization of public research, intellectual property protection in technology transfer, innovation incentives, and basic research policy.

As a lively scholar in technology policy, Dr. Duan is engaged with the China's policymakers to gather high-quality and objective research for improvement of

policymaking on the latest major innovation issues. He has served as a member of many national panels. He was named the Hubert Humphrey Fellow by the William Fulbright Foundation of the United States for one year visiting research at the School of Management, Boston University, in 2006.

Dr. Duan received a bachelor's degree in Chemistry from Hunan Normal University, a master's degree in History of Science from the University of Science and Technology of China, and a PhD in History of Science from the Institute of History of Natural Science of the Chinese Academy of Sciences.

Mu Rongping

Mu Rongping received his B.Sc. and M.Sc. degrees from the University of Science and Technology of China, and his Ph.D. degree from Technische Universität, Berlin, Germany. He has worked in the Institute of Policy and Management, Chinese Academy of Science, since 1990. Mu is now its Director-General and a professor at the Institute of Policy and Management, Director of the Chinese Academy of Science for Innovation and Development, and Editor in Chief of the Journal of Science Research Management, an academic bi-monthly. He is also Vice President and Secretary-General of the China High-Tech Industry Promotion Society, and Vice President of the Chinese Association for Science of Science and S&T Policy Research.

Wang Yi

Wang Yi is a professor and deputy director-general at the Institute of Policy and Management, Chinese Academy of Sciences (CAS). His research has been focused on strategic issues and public policy studies on sustainable development. He had 20 years of experience as a consultant in resources and environmental management, energy and climate change strategy, public transportation development, and policy review, decision analysis for both Chinese central and local governments. Much of his research during the past decades has affected governmental decision making. His works have been won several ministerial-level awards including the 4th Chinese Youth Science and Technology Award.

Currently, he is hosting the following posts: a deputy of the National People's Congress of China, Team Leader and Chief Scientist of CAS China Sustainable Development Strategy Study Program, Deputy Director of the CAS Center for Sustainable Development Research, Deputy Director of the CAS Center for Interdisciplinary Studies of Social and Natural Sciences, Guest Professor of the Center for China Studies of CAS and Tsinghua University, Guest Professor of Graduate School of the CAS. He is also the standing member of the Board of Directors of several academic societies, a member of the editorial board of several academic journals, and a senior adviser to a dozen of international organizations and foundations.

He is the author, co-author or editor of 20 books and numerous articles including the annual *China Sustainable Development Strategy Report* (by themes since 1999, Beijing:

Science Press), *Taking Stock of Integrated River Basin Management in China* (in English, Beijing: Science Press, 2007), *China's Environment and Development Issues in Transition* (*Social Research*, spring 2006, 73(1): 277-91), and *Survival and Development -- A Study of China's Long-Term Development Issues* (in English, Beijing: Science Press, 1992).

Wen Ke

Wen Ke is associate professor of the Institute of Policy and Management, Chinese Academy of Sciences. Her research interests mainly center on science and technology policy, innovation strategy, and policy evaluation. She got her B.A in economics from Qingdao University (1998), a M.A. in accounting from Shandong economic university (2001), and a Ph.D. in management science and engineering from The University of Science and Technology of China (2004). She has been a visiting scholar for two month at California State University at Northridge (2005).

Wen Ke has charged and participated in many projects funded by China's governments and NSF of the United States. And now, she is responsible for China's case study of an international project of South to South Collaboration in Biotechnology funded by IDRC (Canada).

Xiao Guangling

Xiao Guangling is Professor of Science, Technology and Society at Tsinghua University, Beijing, where he has taught and done research since 1984. He is also a member of expert's supervisory committee of China National Sustainable Communities; a member of expert panel of the scientific and technical research of cities and counties of the Ministry of Science and Technology of China; a key member of the research group of China Science and Technology Development Strategy. He was a key member of overall strategic research group and a member of expert panel of the planning office of the National Guidelines for Medium- and Long-term Plans for Science and Technology Development (2006-2020). He earned a B.S. in Chemistry at Nankai University, Tianjin, a M.Ph. in philosophy of science and Technology at East China Normal University, Shanghai, and a Ph.D. in philosophy of science and Technology at Tsinghua University, Beijing. He received China national fund for studying abroad and studied in Canada in 1998-1999 and done joint research and stayed at Japan in 1997.

Professor Xiao received an award of scientific and technological progress of Beijing in 1987, an award of scientific and technological progress of Ministry of Education of China in 2000, two honorary certificates from the planning office of the National Guidelines for Medium- and Long-term Plans for Science and Technology Development (2006-2020) in 2004.

Professor Xiao has taken charge of more than 20 research projects about science and technology policy and strategy, regional innovation and science and technology development, science and technology and sustainable development, cooperation between

university and enterprise, and scientific research and graduate education of university from Ministry of Science and Technology of China, Ministry of Education of China, China Science and Technology Association, Government of Beijing and others, and finished more than 20 research reports and published more 50 research papers. His recent books are *Scientific and Technological Innovation and Regional Development* (China Science Tech Publishing House , Beijing, 2004), and *On Science and Technology Input in the Cities and Counties* (Science Press, Beijing, 2007).

Biosketches

Indian

Dilip Ahuja

Dr. Dilip Ahuja is the ISRO Professor of Science and Technology Policy at the National Institute of Advanced Studies (NIAS) in Bangalore. He has contributed to three Reports of the Inter Governmental panel on Climate Change. In 2007-08, he was a Senior Policy Advisor to the Global Leadership for Climate Action during a sabbatical at the UN Foundation. He has been a Special Advisor to the Inter Academy Council's recently published study titled *Lighting the Way: Toward a Sustainable Energy Future*. Prior to joining NIAS, Dr. Ahuja was worked as a Senior Environmental Specialist at the Global Environment Facility Secretariat in Washington, DC. He has carried out research at the US Environmental Protection Agency, the Tata Energy Research Institute, the Harvard University School of Public Health and the National Institute of Mental Health. He obtained his doctorate in Biomedical Engineering from the University of Virginia at Charlottesville and his Bachelor's in Electrical Engineering from the Indian Institute of Technology, Bombay.

Rajeev Anantaram

Rajeev Anantaram is Senior Fellow at ICRIER since August 2007. He holds a PhD in Public Policy and Applied Economics from the University of Pittsburgh and a Masters in Public Policy from Syracuse University.

Dr Anantaram has extensive professional experience in India and the United States, including think tanks, non-profit organizations, public interest groups and the private sector. Prior to joining ICRIER, he was Senior Economist & Head with CRISIL in New Delhi. He has worked in the areas of energy & environmental policy, technology policy, behavioral health and has conducted a feasibility study for the biotech industry in He has taught graduate level classes in statistics, quantitative methods, intermediate microeconomics and macroeconomics for several years at the University of Pittsburgh,

besides participating in training programs for mid-level bureaucrats from developing countries.

His research interests are in the areas of trade and investment policy regimes in South & South East Asia, regional trade agreements and policies that support sustainable growth. His most recent research project was a study of China's manufacturing sector with potential lessons for India, as part of a broader comparative study of the Indian and Chinese economies sponsored by the Asian Development Bank. He is currently developing a research project that seeks to compare policies that stimulate innovation and the vertical and lateral diffusion of knowledge in India and China, especially in how they impact economic growth.

Samir. K. Brahmachari, FNA, FASc, FNASc

Prof. Samir K. Brahmachari is Secretary, Department of Scientific and Industrial Research (DSIR), Govt. of India and Director General, Council of Scientific and Industrial Research (CSIR), New Delhi—a chain of 37 laboratories across India.

Spearheading India's Functional Genomics Program, Prof. Brahmachari has dovetailed the genetic diversity of the Indian population with the Indian core expertise in structural biology and computation to strategically position India on the global map of Genomics and he also leads the Indian Genome Variation Consortium project.

Prof. Brahmachari has initiated cutting edge developments in personal and predictive medicine and was the first to network a large number of clinicians and hospitals with CSIR to develop predictive medicine in India. He has undertaken major programs in the area of Functional Genomics with special emphasis on Molecular Genetics of Neurological and Psychiatric Disorders; and Functional Genomics *in Silico*. His group has developed novel *in Silico* bioinformatics tools for genome analysis & annotation and to identify functional signature of hypothetical proteins and novel drug targets. It was the first to discover how human miRNA can target HIV genes and control virus replication, thus opening up new avenues of antiviral therapeutics. Prof. Brahmachari is closely associated with the Open Source Drug Discovery framework which will harness the collective minds of Indian scientists and initially focus on the Tuberculosis bacilli

Prof. Brahmachari's contribution to promoting industry-academia interactions through novel program of knowledge partnership is well recognized. He catalyzed the setting up of *The Centre for Genomic Application*- collaboration between a CSIR organization and IMM-The Chatterjee Group. TCGA is the first PPP in Life Sciences— a core - shared research facility that leverages diverse domain specializations and accesses competencies to provide a high quality platform for research. He was the guiding spirit behind *Genomed*--- first-of-its-kind Indian alliance between a Government Institute and a privately owned pharmaceutical company --dedicated to the study and new discoveries in the fields of Genomics, Pharmagenomics and Bioinformatics,

As an Advisor to Human Rights High Commission, Prof. Brahmachari has addressed issues of unethical exploitation of genetic resources of the Third World and championed the concept of benefit sharing by the populations that are part of the research endeavor as resources of genetic material. He has addressed issues of unethical exploitation of genetic resources of the Third World.

Dr. Brahmachari has over 130 publications in leading International Journals and has 5 patents and 10 software copyrights to his credit.

His academic brilliance and scientific leadership have been globally lauded. His many honors and awards include the INSA Young Scientists Award in 1979; Kani Medal (National Cancer Research Centre, Japan), 1981; Shanti Swarup Bhatnagar Award (CSIR) 1990; FICCI Award, 1999; Millennium Medal (Indian Science Congress) 2000; Ranbaxy Award 2001; Prof. B.R. Ambedkar Centenary Award for Excellence in Biomedical Research (ICMR) 2005; J.C. Bose Medal (INSA) 2007; H. K. Firodia Awards For Excellence In Science and Technology (2007); Chemcon Award (2007); R. A. Mashelkar Medal (2007).

He is an elected member of the Human Genome Organization, (1991) and also an elected member of the HUGO Council, 2004. He has been elected to the fellowship of all the three National Academies in India. He is Member of various Task Force and Committees, of the Govt. of India and also abroad. He is Member, Expert Group on Human Rights and Biotechnology, United Nations; Council Member, FAOBMB, since 1997; and member Indo-European Commission S&T Steering Committee. He has been included in the Advisory Committee of the X-Prize in Genomics which consists of leading Genomics Scientists of the world.

Vijay Chandru

Vijay Chandru (PhD, MIT 1982) is an academic turned entrepreneur. Vijay's academic research in operations research and computational mathematics spanned over two decades – from 1982-1992 at Purdue University and 1992-2005 at the Indian Institute of Science. He has authored over sixty journal articles and a book in computational logic. Vijay was elected to the Indian Academy of Sciences as a fellow in 1996. His academic ties continue as an honorary professor of the National Institute for Advanced Studies in Bangalore, and as a Research Affiliate of the Lab for Information and Decision Systems at the Massachusetts Institute of Technology in Cambridge, Massachusetts.

As a founder of Strand Life Sciences, a leading *in silico* life sciences Company, he currently serves as Chairman & Chief Executive Officer of the company. Strand specializes in applying the decision sciences and systems modeling to discovery research in the life sciences. His work with Strand was recognized with the awarding of Innovator by NASSCOM in 2006, Technology Pioneer of the World Economic Forum in 2007, and

the Biospectrum (India) “Biotech Entrepreneur of the Year” award for 2007. Vijay is also a founder of the Association of Biotech led Enterprises (ABLE) and continues to serve as an executive council member.

As an inventor of the Simputer, a novel hand-held computer, Vijay was also a founder of PicoPeta Simputers that was acquired by Geodesic Information Systems in 2006. For his contributions to the Simputer, Vijay received the Dewang Mehta Award, the first time it was awarded in 2001 (it is India’s highest award for innovation in information technology). For his contributions to Science and Society, Vijay was awarded the Hari Om Trust Award by UGC (University Grants Commission, MHRD) in 2003 and the Presidents Medal by INFORMS (Institute for Operations Research and Management Science) in 2006.

Sonika Gupta

Sonika Gupta is Assistant Professor, Department of Humanities and Social Sciences, at Indian Institute of Technology (IIT) Chennai. Her major research interests are Chinese foreign policy, Chinese politics, International Relations Theory, Human Security and Nuclearisation of South Asia.

She has a MA and PhD from School of International Studies in International Relations and Politics and Chinese Studies respectively. She was the recipient of Chinese Government for language study in China. (1997-98). She has worked in the area of foreign policy research with prominent think tanks in New Delhi (Institute of Peace and Conflict Studies & Observer Research Foundation) and Bangalore (National Institute of Advanced Studies - NIAS).

Her recent publications include *An Assessment of China’s Ballistic and Cruise Missiles* (co-authored) published by NIAS.

Javed Iqbal

Javed Iqbal is currently Director of Institute of Life Sciences, Hyderabad. After graduating from Delhi University in 1977, he went to Cambridge University to work as a doctoral fellow with Prof. Ian Fleming, FRS. He subsequently moved to Oxford University in 1982 and worked with Prof. Sir J. E. Baldwin, FRS on Penicillin biosynthesis. After teaching for a year at University of Montpellier, France he returned to India in 1984 and joined IIT Kanpur as a faculty in the department of chemistry and became a professor there in 1990. He made a switch from academia to industry and joined Dr. Reddy’s research foundation, Hyderabad as senior vice-president of research in the year 2000. After spending a year as Director, Regional Research Laboratory (CSIR), Trivandrum he came back to Dr. Reddy’s Laboratories Ltd. in January 2003 and was given a title of distinguished research scientist and global head, discovery chemistry. He has 27 years of teaching and research experience and has 150 research publications in international journals. He also holds 35 global patents on new drug molecules. He has guided 20 PhD, 10 post-doctoral fellows and 30 M. Sc. students at IIT Kanpur and DRL.

He was a visiting professor at University of Notre Dame, USA (1989-90) and University of Okayama, Japan (1994). He has also taught at New Mexico State University, USA during 1997-2000 in the summer semesters. He is a fellow of Indian Academy of sciences, Bangalore and Indian National Science Academy, New Delhi. His research interest includes synthetic organic chemistry, medicinal chemistry and discovery of new drugs in the area of diabetes, cancer, bacterial infections and cardiovascular diseases. He is the co-inventor of two drug molecules for curing diabetes which are currently undergoing Phase I/II clinical trials in UK and Canada.

K. Kasturirangan

K. Kasturirangan is Director of the National Institute of Advanced Studies and the Hon'ble Member of Parliament (Rajya Sabha). Dr. Kasturirangan has steered the Indian space programme for over nine years as Chairman of the Indian Space Research Organization (ISRO) and Secretary to the Government of India in the Department of Space. He was earlier the Director of ISRO Satellite Centre, where he oversaw the activities related to the development of new generation spacecraft, Indian National Satellite (INSAT-2) and Indian Remote Sensing Satellites (IRS-IA&IB) as well as scientific satellites. His research interests include high energy X-ray, γ -ray astronomy, optical astronomy. He has made extensive and significant contributions to studies of cosmic X-ray sources, celestial γ -ray and effect of cosmic X-rays in the lower atmosphere. He is a member of a number of important scientific academies, both within India and abroad. He has been the recipient of several awards including the Allan D Emil Memorial Award of the International Astronautical Federation (IAF), and the Theodore Von Karman Award (2007) of the International Academy of Astronautics (IAA), France, in recognition of his leadership of the Indian space programme. He has been conferred the Padma Shri, Padma Bhushan and Padma Vibhushan. He is the Honorary Fellow of the Cardiff University, UK; an Academician of the Pontifical Academy of Sciences, Vatican City, and a Trustee of the Nehru Trust for Cambridge University.

Ajit Kumar Kolar

- **Academic:**

- Ph D (Mech): **IIT Madras, 1977**

- Post Doctoral Fellow, Dept. of Energy Engg, **University of Illinois, Chicago (1978-1979)**: Research in Fluidized Bed Heat Transfer

- Research Scientist and Research Asst Professor, **New York University (1979-1983)**: Group Leader, Design, Construction and Operation of 75 cm diameter Pressurized Fluidized Bed Combustor for Lignite.

- Faculty member, **IIT Madras** (since 1984), Professor (since 1993)

- **Research Interests:**
Fluidized Bed Dynamics and Heat Transfer; Fluidized Bed Combustion of Coal and Biomass; Biomass Gasification ; Advanced Coal Power Plant Analysis ; Trigeneration; Fuel Cells (Direct Methanol and SOFC)
- **Research Projects:**
 - Ongoing:**
 1. 45 kWe Renewable Energy based Trigeneration System (CWET)
 2. Experimental and CFD Modeling Studies on Free Breathing Fuel Cells (MNRE)
 - Completed:**
 3. Pressurized Biomass Gasifier (MNES)
 4. Advanced Biomass Combustion (SIDA, Sweden)
 5. Biofuel Combustion (SIDA, Sweden))
 6. Pressurized Fluidized Bed Combustion of Low Grade Coal (NSF, USA)
 7. Pressurized Fluidized Bed Gasifier Modeling and Consultancy (BHEL)
- **Experimental Facilities Built in IIT Madras :**
 1. 30 cm Pressurized Bubbling FBC Pilot Plant
 2. 10 cm Bubbling FBC Lab unit
 3. 10 cm dia and 30 cm square cold Bubbling FB units,
 4. 10 cm square cold CFB unit
 5. 1/6 Scaled Model of a 12 MWth CFBC of Sweden
 6. 10 cm dia Pressurized Downdraft Biomass Gasifier
 7. Lab Scale Fuel Cell Testing facility
 8. PCB based Free Breathing DMFC
- **Other Positions:**
 1. Coordinator, Technology Development Mission on Energy, Phase 2 (since 2006)
 2. Invited Member, Advisory Committee, International Conferences on CFB (since 2005)
 3. Member, World Assembly of Heat Transfer (since 2002)
 4. Member, International Scientific Committee, and Lead Scientist for India, International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, Greece (2001) , Japan (2005), Poland (2009)
 5. Coordinator, Prof A. Ramachandran Chair for Heat Transfer, IIT Madras (1996–03)
 6. Coordinator, Technology Development Mission on Energy Efficient Technologies (1992-96)
- **Continuing Education Programs:**
 1. Two International Conferences on Renewable Energy Technologies (1998, 2001)
 2. Three Indo-Swedish Workshops on Biofuel Conversion (2003,2004,2005)
 3. Summer Course on Advanced Energy Technologies (2004)
 4. Short Time Training Programme on Fuel Cells (Dec 2007)
- **Publications**
 1. About 60 in Journals and Conference Proceedings
 2. Proceedings of International Conference on Renewable Energy Technologies (as Editor) 1998 and 2001
 3. A Monograph on “**Advanced Coal Technologies for Power Generation in India**”, National Institute of Advanced Studies, India,1999
- **Invited Lectures**
A large number of invited lectures on various aspects of Energy in Conferences, R and D

institutions, and Engineering Colleges in India and abroad

- **PG Courses introduced at IIT Madras**

Fluidized Bed Combustion Technology; Advanced Energy Conversion Technologies; Theory and Technology of Fuel Cells

Arabinda Mitra

After a distinguished academic career from Patna University, Arabinda Mitra started his professional assignment in 1985 as a research scholar in Delhi University, on a Department of Ocean Development Fellowship. In 1987 he joined the Department of Atomic Energy as a Scientific Officer, and was involved in the exploration geology of the Himalayas.

In 1988, he was awarded the prestigious Cambridge Nehru Fellowship to pursue his doctoral research at the University of Cambridge, UK. His PhD project was jointly carried out with MIT, USA in the area of mid oceanic ridge hydrothermal systems. His research work was published in international journals like Nature, Marine Chemistry and Geo-chimica Cosmo-chimica Acta, Journal of Remote Sensing etc.

In 1993, Dr. Mitra joined the Department of Ocean Development and was assigned the responsibilities of the Indian Antarctic Program. He has to his credit the planning and launching of several multidisciplinary experiments in the Indian Antarctic station, and inducting a strong element of international programs in the Antarctic program. He was nominated as the Indian representative to the international bodies like SCAR & COMNAP of the Antarctic Treaty.

In 1998, Dr. Mitra moved to the National Centre for Antarctic & Ocean Research at Goa, in the capacity of Program Manager, Science. He played a pivotal role in formulating the long-term science strategy of the Indian Antarctic missions and also initiated the setting up of the low temperature ice core laboratory and the remote sensing laboratory at Goa.

In the course of the above assignments, Dr. Mitra has won several academic awards like the ORS Award of UK; Bursary Award of St. Edmund's College; UK and JSPS Award of Japan and was also elected as a Fellow of Geological Society, London. He was a member of the Indian expeditions to Antarctica and has undertaken several scientific cruises to the Indian, Atlantic & Pacific Oceans.

In 2001, Dr. Mitra joined as a Director in the International Division of the Dept of Science & Technology, Government of India. He proficiently enriched the scope and contents of the DST-NSF cooperation through several new initiatives. In Nov 2004, Dr. Mitra was confirmed by the two governments as the first Executive Director of the bi-national Indo-US Science and Technology Forum. He has since added a new paradigm in the Indo-American S&T cooperation by bridging the performing science and technology groups in academic and research sectors of USA and India.

Balaji Parthasarathy

Balaji Parthasarathy is ICICI Chair and Associate Professor at the International Institute of Information Technology, Bangalore. His teaching and teaching interests focus on the relationship between technological innovation, economic globalization and social change. Within this broad focus, his work follows two threads.

One thread examines the impact of public policies and firm strategies on the socio-spatial organization of the ICT (information and communications technology) industry. Empirically, he has examined the ascendance of the computer software industry and the decline of the telecommunications equipment manufacturing in Bangalore since the mid-1980s. Currently, he is studying how emerging social and economic relationships are driving entrepreneurship and innovation in small and medium firms of the Indian software industry.

Another thread of his work deals with ICTs for Development or ICTD. Here his interests lie in understanding how ICTs are being deployed in various domains of activity to transform social relationships, especially in economically underdeveloped contexts. He recently completed a study comparing six rural e-governance projects in India. He is currently finishing another study that examines eight initiatives, in various Indian states, that deploy ICTs to enhance agricultural productivity. Simultaneously, he is working on an analysis of the institutional dimensions of India's role in the globalization of electronic waste.

Balaji holds a Bachelor's degree from the Indian Institute of Technology, Kharagpur, and a Ph.D. from the University of California, Berkeley.

C.N.R. Rao

C.N.R. Rao obtained his PhD degree from Purdue University and DSc degree from the University of Mysore. He is the Linus Pauling Research Professor at the Jawaharlal Nehru Centre for Advanced Scientific Research and Honorary Professor at the Indian Institute of Science (both at Bangalore). His research interests are in the chemistry of materials. He has authored nearly 1000 research papers and edited or written 30 books in materials chemistry. A member of several academies including the Royal Society and the US National Academy of Sciences, he is the recipient of the Einstein Gold Medal of UNESCO, Hughes Medal of the Royal Society, and the Somiya Award of the International Union of Materials Research Societies (IUMRS). In 2005, he received the Dan David Prize for materials research from Israel and the first India Science Prize.

Ramakrishna Ramanath Sonde

1. Full name including title : Dr. Ramakrishna Ramanath Sonde

2. Date of Birth : 7th April 1957

3. Current Designation: : Executive Vice President
(Innovation and Technology) ,
Thermax Ltd. Pune

3.Educational Qualifications : B.Tech. (Chemical Engg.)

Ph.D. (Simulation & Modeling)

4. Fellowship/ Membership : Senate Member, IIT- Delhi Senate

: Fellow, Indian Academy Of Engineering

: Member, Scientific Advisory Committee,
Department of Science and
Technology (DST)

: Member, Environment Committee,
Department of Bio Technology
(DBT)

5.Professional Affiliations : FNAE (Fellow of National Academy of
Engineering and Governing Body Member)

Indian Nuclear Society

Indian Institute of Chemical
Engineers (IChE)

IIT B-Mumbai -Alumini

6. Post Held till date: Senior Scientist (H)Dept. of Atomic Energy
till 2004

(till 2008 Apr) Executive Director – NTPC Ltd,

7.Awards / Honors :Was awarded Homi
Bhabha Gold Medal during the
golden Jubilee Function at BARC In
the hand of Hon'able PM Sh.
Manmohan Singh

:
M. Vishwswarayya Gold Medal
for standing first to the University

: Dr. Homi Bhabha award for
standing first to entire batch of
engineers & scientists

: Indian Nuclear Society Awards,
2002 (Gold
Medal) for outstanding
contribution in field
of Nuclear Science &
Technology

: IChE -2007 Dr. Doraiswami medal

8. Major Areas of Specialization

: Development of deuterium oxide
technology
Involving setting basic research,
design, pilot scale set up, detailed
engineering, commissioning and
operation,

Energy technologies in efficiency
enhancement, waste heat
utilization, gasification, carbon
capture and sequestration and
related fields

Solar thermal and development of
new power
Generating cycles

9. No. of Publications :

a. International Conferences & meetings - 2

b. Journal papers (National & International) - 5

c. Patents - 2 granted and 1 in the final stages of grant

d. National Conferences & Symposia – 10 plus

e. Other reports - Contributed in the books on Heavy Water and Facets of
Nuclear Energy

- d. Articles – Article on alternate applications in Heavy Water in biological and technological fields.

Biosketches

American

William A. Blanpied

Prior to his retirement from the federal government in January 2003 William A. Blanpied had been, since 1983, Senior International Analyst at the National Science Foundation (NSF), except for the period from July 1999 through August 2002 when he served as Director of the NSF Tokyo Regional Office. From January 1999 to the present, he has been a principal point of contact in the United States for organizing an approximately annual series of Sino-US Science Policy Dialogues, funded in part by NSF (www.law.gmu.edu/nctl/stpp/us_china.php.)

Prior to his service with NSF, which he joined in 1976, Blanpied held faculty appointments in the physics departments at Case Western Reserve, Yale, and Harvard Universities. From 1969-71, he was a member of NSF's Science Education Liaison staff in New Delhi, India.

Blanpied received his BS degree from Yale in 1955 and his PhD from Princeton University in 1959. He is the author or co-author of three books, and has published numerous articles and reviews in the professional literature on physics, history of science, international science, and science policy. During the Fall 2003 semester he was a Visiting Lecturer at Tsinghua University, Beijing, where he offered a graduate course on science and technology policy.

Carl J. Dahlman

Carl J. Dahlman is the Luce Professor of International Relations and Information Technology at the Edmund A. Walsh School of Foreign Service at Georgetown University. He joined Georgetown in January 2005 after more than 25 years of distinguished service at the World Bank.

At Georgetown, Dr. Dahlman's research and teaching explore how rapid advances in science, technology and information are affecting the growth prospects of nations and influencing trade, investment, innovation, education and economic relations in an increasingly globalizing world.

At the World Bank Dr. Dahlman served as Senior Advisor to the World Bank Institute and managed the Knowledge for Development (K4D) since 1999. Prior to that he served

as Staff Director of the 1998-1999 World Development Report, *Knowledge for Development*, was the Bank's Resident Representative and Financial Sector Leader in Mexico, and led divisions in the Bank's Private Sector Development, and Industry and Energy Departments. He has conducted extensive analytical work in major developing countries including Argentina, Brazil, Chile, Mexico, Russia, Turkey, India, Pakistan, China, Indonesia, Korea, Malaysia, Philippines, Thailand, and Vietnam.

Dr. Dahlman's recent books include: *Knowledge and Innovation for Competitiveness in Brazil* (2008), *Mexico's Transition to a Knowledge Based Economy: Challenges and Opportunities* (2008), *Enhancing China's Competitiveness through Life Long Learning* (2007), *Finland and the Knowledge Economy: Accomplishments and Lessons Learned* (2006), *India and the Knowledge Economy: Leveraging Strengths and Opportunities* (2005), *China and the Knowledge Economy: Seizing the 21st Century* (2001), *Korea and the Knowledge-Based Economy: Making the Transition* (2000). His recent book chapters include: "Financing Life Long Learning", in Shuilin Wang and Lou Jiwei, Editors, *Public Finance in China—Reform and Growth for a Harmonious Society* (2008). "Improving, Technology, Skills and Innovation in South Asia, in Ejaz Ghani, editor, *South Asia's Growth and Economic Integration* (2007). "Technology, Globalization and Competitiveness: Challenges for Developing Countries," in David O'Connor, editor. *Industrial Development in the 21st Century: Sustainable Development Perspective* (2007). "The Innovation Challenge: Drivers of Growth in China and India," in National Research Council, Charles W. Wessner, ed. *Innovation Policies for the 21st Century*. . (2007). "India's Knowledge Economy in the Global Context," in National Research Council, Charles W. Wessner and Sujai J. Shivakumar, eds., *India's Changing Innovation System: Achievements, Challenges, and Opportunities for Cooperation* (2007). Recent articles include: "The Challenge of the Knowledge Economy for Latin America" in *Globalization, Competitiveness and Governance* online journal of Georgetown-University Vol. 1, No1 (November, 2007); and "China and India as Emerging Technological Powers", in *Issues in Science and Technology* US National Academies of Science-Spring issue (2007).

Dr. Dahlman earned a B.A. magna cum laude in international relations from Princeton University and a Ph.D. in economics from Yale University. He has also taught at Columbia University's School of International and Public Affairs.

Bethany Lyles Goldblum

Bethany Lyles Goldblum completed her doctoral degree with perfect marks in the Department of Nuclear Engineering from the University of California, Berkeley. Her doctoral dissertation, entitled "Absolute and Relative Surrogate Measurements of the $^{236}\text{U}(n,f)$ Cross Section as a Probe of Angular Momentum Effects" investigated the limitations of the Surrogate Method, a technique for indirect determination of neutron-induced reaction cross sections on radioactive nuclei. Dr. Goldblum's research interests are in the area of applied nuclear physics, with current emphasis on nuclear data needs for homeland security and Generation IV nuclear energy systems as well as nuclear forensics applications. She maintains active collaborations with researchers in the

Physical Sciences Directorate at Lawrence Livermore National Laboratory, the Nuclear Science Division at Lawrence Berkeley National Laboratory and the Department of Physics at the University of Oslo, Norway.

Dr. Goldblum has received numerous fellowships and grants including the American Association of University Women Selected Professions Dissertation Fellowship, the Phi Kappa Phi Graduate Fellowship and the Department of Energy Nuclear Engineering Fellowship, among others. She is the coauthor of several nuclear physics publications and has served as a teaching assistant to undergraduates in nuclear physics, radiation detection and nuclear instrumentation. In addition to Goldblum's scientific pursuits, she maintains a functioning interest in nuclear energy and weapons policy. She held the National Science Foundation Public Policy and Nuclear Threats Fellowship and was a Project on Nuclear Issues Scholar at the Center for Strategic and International Studies. Goldblum organized the Institute on Global Conflict and Cooperation's 2007 Emerging Nuclear Threats Conference held in Washington, D.C. and coauthored a proposal outlining a novel means for deterring a nuclear North Korea, which was presented on Capitol Hill.

Peter C. Harsha

Peter Harsha is the Director of Government Affairs for the Computing Research Association, an organization representing 200 North American academic departments of computer science, computer engineering and related fields; 26 industrial research labs; and 6 affiliated professional societies. In his position, Peter works to help CRA influence computing research policy by improving public and policy maker understanding of the nature of research, and by increasing the computing community's awareness of and participation in policy issues. Prior to joining CRA in October 2001, Peter spent six years working for Congress, beginning as a member of the personal staff of Congressman Nick Smith of Michigan. In the 106th and 107th Congresses, Peter served as a member of the professional staff of the House Science Committee as Chairman Smith's designee on the Subcommittee on Research, working on a portfolio of issues that included oversight of the National Science Foundation, Information Technology, the U.S. Fire Administration, and the National Earthquake Hazards Reduction Program. Peter is a graduate of Hillsdale College in Hillsdale, Michigan.

James R. Katzer

James R Katzer is a member of the National Academy of Engineering, and is currently working on several panel studies at the National Research Council including "Resource Needs for Fuel Cell and Hydrogen Technologies," "Alternative Liquid Transportation Fuels". As a Visiting Scholar at MIT (2004 to 2007), he was the Executive Editor/Director of the MIT study on "The Future of Coal in a Carbon Constrained World," which was formally completed, presented and published in April, 2007, and he is an independent energy consultant. Prior to that he was manager of strategic planning and program analysis for ExxonMobil Research and Engineering Company, where he was responsible for technology-planning and analysis activities. Before that he was Vice

President, Technology, in the Office of the CTO, Mobil Oil Corporation, with primary responsibilities for developing forward-looking technology scenarios, identifying and analyzing technology and environmental developments and trends, identifying future threats and opportunities and strategies to deal with them. Dr. Katzer joined the Central Research Laboratory of the Mobil Oil Corporation in 1981, later becoming manager of process research and technical service and vice president of planning and finance for Mobil Research and Development Corporation. Before joining Mobil he was a professor on the chemical engineering faculty at the University of Delaware and the first director of the Center for Catalytic Science and Technology there. He recently served on the NRC Committee on Alternatives to Indian Point that evaluated various energy supply and end-use technologies as potential replacements for the Indian Point nuclear power plants. Dr. Katzer has more than 80 publications in technical journals, holds several patents, and co-authored and edited several books. He received a B.S. degree from Iowa State and a Ph.D. in chemical engineering from MIT.

Robert Kneller

Robert Kneller (JD Harvard Law School 1980, MD Mayo Medical School 1984, MPH Johns Hopkins 1986) worked in Tianjin Children's Hospital and the Chinese Academy of Preventive medicine in 1986 and 1987, before joining the U.S. National Institutes of Health (NIH) in 1988. In NIH, he was a cancer epidemiologist and then was responsible for negotiating collaborative agreements with industry to develop NIH anti-cancer therapies. In 1997, an Abe Fellowship enabled him to study the Japanese system of university-industry cooperation in the University of Tokyo. Since 1998 he has been a professor in that university's Research Center for Advanced Science and Technology (RCAST). His research focuses on university-industry cooperation, the role of venture companies in innovation, the discovery and commercialization of biomedical technologies, and conflicts of interests associated with academic entrepreneurship. He is the author of the recently published book, *Bridging Islands* (Oxford), which compares the environments for new high technology companies in Japan and the US, and the role these companies play in innovation. Please see www.kneller.jp.

Bhavya Lal

Bhavya Lal is a core staff member at the Science and Technology Policy Institute (STPI), a federally funded R&D center that advises the Executive Office of the President and other US Executive Agencies. She leads STPI's work in the areas of *Innovation, Competitiveness and International Science and Technology*. Ms. Lal recently completed an international benchmarking study for the President's Council of Advisors on Science and Technology (PCAST) on innovation and competitiveness related issues in the information and communication technology (ICT) sector. She is also completing an analysis of the best known indices of national economic competitiveness with regard to their methodologies and ranking outcomes, as well as a survey of off shoring studies. As part of a prior PCAST summit on regional innovation, she developed background Issue Briefs and other materials on innovation systems, regional clusters, and economic development. She is currently supporting a congressionally-mandated Summit on science

and technology (S&T) topics include the gamut of innovation and competitiveness – from the US investment in basic S&T, to issues of shortages and surpluses in the S&T workforce.

Prior to joining STPI, Ms. Lal was the President of C-STPS LLC, a boutique S&T policy research and consulting firm in Waltham Massachusetts, prior to which she was the Director of the *Center for Science and Technology Policy Studies*, at Abt Associates Inc, one the nation's largest policy research and consulting firms. Ms. Lal holds a bachelor's and a master's degree in nuclear engineering from the Massachusetts Institute of Technology (MIT), as well as a master's degree from the Technology and Policy Program (TPP) at MIT.

Aaron Levine

Aaron D. Levine is an Assistant Professor in the School of Public Policy at the Georgia Institute of Technology (Georgia Tech). His research explores the intersection between public policy, bioethics and biomedical research and focuses on understanding how the policy environment influences the development of ethically-contentious new technologies. He is the author of *Cloning: A Beginner's Guide* (Oneworld Publications, 2007), an accessible introduction to the science of cloning and embryonic stem cells and the ethical and policy controversies this science inspires. Aaron completed his Ph.D. in Public Affairs at Princeton University, where his dissertation research examined the impact of public policy on the development of human embryonic stem cell science. He also holds an M.Phil. from the University of Cambridge, where, as a Churchill Scholar, he studied computational biology at the Sanger Centre and developed algorithms to help analyze the human genome sequence.

Jamie Link

Jamie Link is a research staff member at the Science and Technology Policy Institute (STPI), a federally funded R&D center that advises the Executive Office of the President and other U.S. government agencies. She leads policy studies in the areas of energy, climate change, innovation, and competitiveness. Current projects include a study on the life cycle environmental impacts of various biofuels and a series of policy issue briefs on topics related to climate change. Dr. Link is particularly interested in clean coal technologies as a tool for addressing global climate change.

Dr. Link has a bachelor's degree from Princeton University and a Ph.D. in Chemistry from the University of California, San Diego. Prior to joining STPI, she spent a year in the U.S. Senate working on a variety of S&T policy issues in the office of Senator Joseph Lieberman.

Norman P. Neureiter

Norman P. Neureiter was born in Illinois and grew up near Rochester, New York. He received a B.A. degree in chemistry from the University of Rochester in 1952 and a Ph.D. in organic chemistry from Northwestern University in 1957. He spent a year ('55-6) as a Fulbright Fellow in the Institute of Organic Chemistry at the University of Munich.

In 1957, he joined Humble Oil and Refining (now part of Exxon) in Baytown, Texas as a research chemist, also teaching German and Russian at the University of Houston. On leave from Humble in 1959, he served as a guide at the U.S. National Exhibition in Moscow, subsequently qualifying as an escort interpreter for the Department of State. In 1963, he joined the International Affairs Office of the U.S. National Science Foundation in Washington and managed the newly established U.S.-Japan Cooperative Science Program. Entering the U.S. Foreign Service in 1965, he was named Deputy Scientific Attaché at the U.S. Embassy in Bonn. In 1967, he was transferred to Warsaw as the first U.S. Scientific Attaché in Eastern Europe with responsibility for Poland, Hungary and Czechoslovakia.

Dr. Neureiter returned to Washington in 1969 as Assistant for International Affairs to the President's Science Advisor in the White House Office of Science and Technology. He left the Government in 1973 and joined Texas Instruments (TI), where he held a number of staff and management positions including Manager, East-West Business Development; Manager, TI Europe Division; Vice President, Corporate Staff; and Vice President of TI Asia, resident in Tokyo from 1989-94.

After retirement from TI in 1996, he worked as a consultant until being appointed in September 2000 as the first Science and Technology Adviser to the U.S. Secretary of State. Finishing the 3-year assignment in 2003, he was made a Distinguished Presidential Fellow for International Affairs at the U.S. National Academy of Sciences. In May 2004, he joined the American Association for the Advancement of Science (AAAS) as the first Director of the new AAAS Center for Science, Technology and Security Policy (CSTSP), funded by the MacArthur Foundation. Dr. Neureiter is married with four children and speaks German, Russian, Polish, French, Spanish and Japanese.

Dr. Neureiter was named 14 January 2008 to receive the Public Welfare Medal, the highest honor of the National Academy of Sciences.

Rodney W. Nichols

Rodney W. Nichols, President and CEO of the New York Academy of Sciences from 1992 to 2001, was previously Scholar-in-Residence at the Carnegie Corporation of New York (1990-1992), and Vice President and Executive Vice President of The Rockefeller University (1970-1990).

Earlier he served as an R&D manager in industry and in the Office of the Secretary of Defense. A Harvard graduate and applied physicist, he has held major responsibilities for

strategic plans and research budgets, facilities and construction, public affairs and fund-raising, and university-industry relations, including negotiations on intellectual property. Co-author of two books and scores of papers, he has frequently lectured before corporate, academic, and governmental groups on: research and development trends; international scientific cooperation and competition; and K-12 education for economic growth. He was an invited speaker at the U.S.-Japan “Innovation Summit” (Nagoya 10/05), India’s “R&D-2005”(New Delhi 11/05), and IIT Symposium (Wash DC 2006).

Mr. Nichols has led projects conducted in China, Japan, India, Europe, Africa, the Middle East, and Latin America. He is on the Board of Advisors to *Foreign Affairs*, and co-chaired the Japan-U.S. Cooperative Science Program of the National Science Foundation. Mr. Nichols served on U.S. government delegations to the UN for negotiations: on arms control, technology transfer, and capacity-building in developing countries.

Appointed to the Executive Committee of the Carnegie Commission on Science, Technology, and Government (1989-1994), Mr. Nichols was principal author of the Commission’s January 1992 report entitled *Science and Technology in U.S. International Affairs*. He also was vice chair to former President Jimmy Carter for the Commission’s December 1992 report on *Partnerships for Global Development*. He co-authored chapters on “Science and Technology in North America” for UNESCO’s biennial *World Science Report (1994, 1996, and 1998)*, prepared the entry on “Science and Technology” for Oxford’s *Encyclopedia of U.S. Foreign Relations (1997)*, and chaired a research project of the Council on Foreign Relations on *Technology Policy in Managing Global Warming (2001)*. He is on the editorial board of *Technology in Society: An International Journal*; he co-edited, and wrote closing chapter for, a 500 pg. issue of the Journal on “S&T in China, India, and the US,” July 2008. He contributed two chapters on S&T in “*Mapping the New World of American Philanthropy*,” Wiley, 2007.

Mr. Nichols has advised the White House Office of Science and Technology Policy; State, Defense, and Energy Departments; the NIH; NSF; the UN; Congressional Office of Technology Assessment; Senate; and National Academies of Science and Engineering. He has given Congressional testimony on both civilian and defense R&D. His industrial consulting has included the research laboratory of GTE and Shell Technology Ventures. He also chairs the non-profit India-U.S. Science and Technology Partnerships, with an office at Smithsonian in Wash DC.

He currently serves on The Rockefeller University Council, and on the boards of the Research Foundation of the City University of New York, US Civilian Research and Development Foundation, Eugene Lang College of New School University, Manhattan Institute, ALS Association, American Council on Science and Health, and Committee to Reduce Infection Deaths. Mr. Nichols gave expert testimony in 2007 to the bi-partisan HELP Commission, reviewing US foreign assistance. He was a founding judge on the selection panel for the Weizmann Institute’s Women in Science Award. He served on the 2005-07 National Innovation Initiative of the Council on Competitiveness, and the jury for the \$500k MIT-Lemelson Technology Prize. Earlier he served on the boards of the

American University of Beirut, Christopher Reeve Foundation, and the Critical Technologies Institute (RAND). He is a consultant to the Lounsbery Foundation, the Simons Foundation, Changing Our World, Inc, Woodrow Wilson Center, and the private sector Gerson Lehrman Technology Council.

Elected a Fellow of the AAAS and of the New York Academy of Sciences, Mr. Nichols is a member of the American Physical Society. He was elected to the Council on Foreign Relations, Sigma Xi, and World Innovation Foundation. He was awarded the Secretary of Defense Medal for Distinguished and Meritorious Civilian Service (1970), the Distinguished Patriot Award of the Sons of the Revolution (1996), and an honorary Doctor of Science by Cedar Crest College (2001). He is a member of the Harvard Club, Century Association, and Cosmos Club.

Rachel Parker

Rachel Parker is a PhD student in Sociology at the University of California, Santa Barbara where she is a research fellow at the Center for Nanotechnology in Society, a National Science Foundation funded research center. Rachel works with Professor Richard Appelbaum on the emergence of nanotechnology in the context of globalization and sustainable development. Her dissertation research looks at the possibilities for sustainable development in China, given the government's support for nanotechnology in addition to its focus on building a culture of innovation through international collaboration in science and engineering. Rachel received a Bachelors degree in Sociology from Brandeis University and a Masters degree from the London School of Economics in the Management of Non-Governmental Organizations.

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Bangalore, Karnataka India 560 045 (011)

91.94.8009.0078

Education

Ph.D. **Cornell University** Theoretical chemistry major,
Science communication minor Aug 2007
Thesis: Using Similarities to Find Differences in Unusual Clusters, Cobaltites, and Forms of Science Communication

M.S. **Cornell University** Theoretical chemistry

- Wrote articles on scientific and non-scientific lectures and conferences at Cornell
- Conducted interviews with students and administrators

Publications Assistant
2006

Sept 2005-June

Jawaharlal Nehru Centre for Advanced Scientific Research (Bangalore, India)

- Wrote several pieces for and edited segments of the Centre's promotional book summarizing its activities
- Wrote an article about JNCASR for *The Hindu*, a national newspaper
- Composed several portions of the Centre's *Tenth Plan* funding proposal for the national government

Writing Intern, The Green Foundation (Bangalore, India)
spring 2006

- Wrote a manuscript about the Green Revolution's impact on India's rural poor for submission to the FAO-sponsored International Assessment of Agricultural Science and Technology for Development organization
- Conducted an extensive literature review for this manuscript

Electronic Newsletter Editor, Engineers for a Sustainable World *Cornell University*
fall 2004

- Wrote articles and briefs outlining the organization's activities
- Researched fellowships and news items for the monthly electronic newsletter
- Designed newsletter format using html and Mozilla

Copyeditor, English Department *Macalester College*
Jan-Aug 2001

- Proofread manuscript for Becoming Black: Creating Identity in the African Diaspora by Michelle M. Wright
- Formatted manuscript in accordance with Duke University Press guidelines

Sports and News Briefs Writer, Mac Weekly Newspaper *Macalester College*
Aug-Dec 1998

- Published weekly sports articles and an occasional campus news brief
- Interviewed administrators, coaches, and players

Teaching Experience

Physical Chemistry TA, Cornell University *Chemistry and Chemical Biology Dept.*
Sept 2002-May 2004

- ***Taught 11 students proper laboratory techniques and instrumentation in an intensive upper-division course***
- Proofread, co-graded lab reports, and calculated final course grades
- Provided informal mentoring and tutoring for students
- Received the 2004 Bayer Teaching Excellence Award

Cornell Graduate School Research Travel Grant	2005
Bayer Teaching Excellence Award	2004
Chester H. Shiflett Endowed Chemistry Award	2001
Iota Sigma Pi Chemistry Honor Society	2000
Phi Lambda Upsilon Chemistry Honor Society	2000
REU Peer Presentation Award, Cornell University	1999
National Dean's List Member	1998

Athletic Honors

Macalester College Weight Throw Record-Holder	2001
All-Conference Indoor Shot Put and Weight Throw	2001
Macalester Athletic Honor Roll	1999-2001

Community Awards

Presidential Leadership Award	2001
Macalester Community Service Award	2001

Publications and Presentations

A Pnictogen of Peculiar Posture. Poduska, A.; Hoffmann, R. *Inorganic Chemistry* (2007), **46**, 22, 9146-54.

S₄²⁻ Rings, Disulfides, and Sulfides in Transition Metal Complexes: The Subtle Interplay of Oxidation and Structure. Mealli, C.; Ienco, A.; Poduska, A.; Hoffmann, R. In press, *Angewandte Chemie International Edition in English*.

A Curious Sulfur Quartet. Poduska, A.; Mealli, C.; Ienco, A.; Hoffmann, R. *Manuscript in preparation*.

Relating Lone Pairs and Hypervalent Bonding in T-Shaped EL₃ Molecules. Poduska, A.; Hoffmann, R. *Manuscript in preparation*.

A Pnictogen of Peculiar Posture. Poduska, A.; Hoffmann, R. Poster presented at the I2CAM/ICAM Annual Meeting in Santa Fe (2006).

A Pnictogen of Peculiar Posture. Poduska, A.; Hoffmann, R. Poster presented at the American Chemical Society National Meeting in San Diego (2005).

Activities

Graduate: Expanding Your Horizons Science Outreach Volunteer, Graduate and Professional Student Assembly representative, Cornell Chamber Choir, International Student Orientation Volunteer, Ithaca Soccer League

Undergraduate: Trustee Board Representative, Festival Chorale, Bagpipe Player, Bush Children's Center mentor, Dean of Students and English Dept. Faculty Consultant, Student Government Executive Committee Member

Lisa Saum-Manning

Lisa Saum-Manning is a post doctoral fellow and research associate in the Nonproliferation and National Security Division at Brookhaven Laboratory. Since joining the lab in the Fall of 2007 Lisa has worked in several areas including: projects related to the nonproliferation in developing countries interested in pursuing nuclear energy; the negotiating history of the Additional Protocol; training IAEA weapons inspectors on treaty-related inspection requirements; and the development of workshops to train the next generation of nuclear safeguards experts; Lisa completed her PhD in Political Science at the University of California, Los Angeles in the Spring of 2007. Her dissertation focused on government and private stakeholders who influence the national security policy-making process. Lisa was also a RAND summer fellow and is an active member of the Institute on Global Conflict and Cooperation/Public Policy and Nuclear Threats at the University of California, San Diego.

Susan Su

EDUCATION

Ph.D., Bioengineering, University of California, San Diego, 2007

M.S., Bioengineering, University of California, San Diego, 2003

B.S., Mechanical Engineering with Minor in Spanish, Binghamton University, 2001

PH.D. DISSERTATION

Title: Fluid Stress on the Surface of a Migrating Leukocyte in a Flow Field and the Involvement of Formyl Peptide Receptor in Its Mechanotransduction

Advisor: Geert W. Schmid-Schönbein

Summary: Human leukocytes have been shown to retract pseudopods when subjected to small physiological levels of fluid shear. We hypothesized that the control mechanisms of this response are in turn regulated by the fluid stress distribution on the cell membrane. We developed a method to compute the fluid stresses on the cell surface and also found that G-protein coupled receptors, which may act as mechanosensors, are internalized by exposure to laminar flow. Understanding the morphological responses of human leukocytes may one day allow us to interfere with the progression of chronic inflammatory diseases.

RESEARCH EXPERIENCE

Predoctoral Candidate, University of California-San Diego, 9/2001-1/2007

Skills Acquired: mammalian cell culture, 3D reconstruction of cell shape from 2D images (Matlab), finite element modeling of a cell under fluid flow (FEMLAB), real-time confocal imaging of live cells, immunofluorescent labeling of live cells, designing and carrying out fluid shear experiments on live cells (micropipette, parallel-plate flow

chamber, and viscometer set-ups)

WORK EXPERIENCE

Patent Examiner, United States Patent & Trademark Office, 9/2007-present

Responsibilities: Examine patent applications by reading and understanding the application, perform necessary prior art search, prepare official correspondences with applicants and attorneys

Christine Mirzayan Science & Technology Policy Graduate Fellow, The National Academies, 6/2007-09/2007

Responsibilities: write and edit contents of new webpage related to the promotion of engineering education, conduct extensive background research for new report, evaluate findings and provide briefings to senior program officers, handle logistical and event coordination for senior program officers

Project Research Intern, World Association of Non-Governmental Organizations, 3/2007-5/2007

Responsibilities: perform background research, assist in the planning and coordination of an international conference and a fundraiser (including updating contacts database, website content updates, calling potential sponsors, preparing mass mailings, etc.), prepare project presentation

Summer Intern, PB Power, 6/2001-8/2001

Responsibilities: assist in compilation and editing of project proposals, identify sites needing power upgrades

TEACHING EXPERIENCE

Teaching Assistant, University of California, San Diego, 1/2002-3/2002

Course: Introduction to Biomechanics (undergraduate level)

Responsibilities: lead discussions, create homework problems, grade homework and exams

Teaching Assistant, University of California, San Diego, 1/2003-3/2003 & 1/2004-3/2004

Course: Biodynamics (undergraduate level)

Responsibilities: lead discussions, create homework problems and exam questions, grade homework and exams

Teaching Assistant, University of California, San Diego, 4/2003-6/2003

Course: Bioengineering Laboratory (undergraduate level)

Responsibilities: guide students in bioengineering lab experiments (topics include: muscle mechanics, blood pressure recording, cardiac mechanics, hemorheology, etc), grade lab reports

LEADERSHIP EXPERIENCE

Vice President of Finance, Graduate Student Association, University of California, San Diego, 11/2005-6/2006

Duties: implement budgetary decisions of the GSAUCSD, make financial reports to GSAUCSD Council, plan fiscal year budget

AWARDS AND HONORS

Christine Mirzayan Science and Technology Policy Graduate Fellowship, summer 2007 fellow

Bachelor of Science, magna cum laude

COMMUNITY ACTIVITIES

Exhibits & Education Volunteer, Birch Aquarium at Scripps, 9/2002-1/2007

Responsibilities: educate visitors about the ocean and its conservation, enhance visitor experience through interpretive displays, handle live animal exhibits, represent the aquarium in community outreach events

Volunteer, Flex Volunteer Program, Volunteer-San Diego, 6/2003-1/2007

Responsibilities: tutor 5th -11th grade students in math and science

LANGUAGE SKILLS

Proficient in writing, reading, and speaking both Cantonese Chinese and Mandarin Chinese

Intermediate level in writing, reading, and speaking Spanish

PUBLICATIONS

JOURNAL ARTICLES

Su, Susan and Schmid-Schönbein, Geert W. Shear-stress-independent Internalization of Formyl Peptide Receptor in Human Leukocytes under Fluid Flow, *in preparation*.

Su, Susan and Schmid-Schönbein, Geert W. Fluid Stresses on the Membrane of Migrating Leukocytes, *Annals of Biomedical Engineering*, 36(2) 298-307, 2008.

Su, Susan and Didion, Catherine. Encouraging the Entrepreneur Spirit in Women, *Diversity Business Magazine*, September, 2007.

CONFERENCE ABSTRACTS

Su, Susan and Schmid-Schönbein, Geert W. Fluid Stress Is Not the Sole Determinant of Pseudopod Retraction of a Migrating Neutrophil Under Laminar Flow, *International Society of Applied Cardiovascular Biology 10th Biennial Meeting*, La Jolla, CA, 2006.

Su, Susan and Schmid-Schönbein, Geert W. An FEM Model to Determine the Fluid Stress Distribution on a Migrating Neutrophil Under Laminar Flow, *Jacobs Research Expo*, UCSD, 2005.

Richard P. Suttmeier

Richard P. Suttmeier is a Professor of Political Science at the University of Oregon. He received his A.B. from Dartmouth College in 1963 and his Ph.D. from Indiana University in 1970. He has served as a Senior Analyst at the Congressional Office of Technology Assessment, a consultant to the World Bank, the UNDP, and the IDRC of Canada, as the Director of the Beijing Office of the Committee for Scholarly Communication with China, and a visiting professor at the Hong Kong University of Science and Technology

Suttmeier's current research includes a three year NSF-supported study of the role of science and technology in China-US relations and the role of technical standards in China's technology policy. His most recent publications include:

China's Post-WTO Technology Policy: Standards, Software, and the Changing Nature of Techno-Nationalism (with Yao Xiangkui), National Bureau of Asian Research, May, 2004;

"'Knowledge Innovation' and the Chinese Academy of Sciences," (with Cao Cong and Denis Simon). *Science*, April 7, 2006 ;

Standards of Power? Technology, Institutions, and Politics in the Development of China's National Standards Policy (with Yao Xiangkui and Alex Zixiang Tan) National Bureau of Asian Research, June, 2006;

"China's 15-Year Science and Technology Plan," (with Cao Cong and Denis Simon) *Physics Today*, December, 2006;

"China's Innovation Challenge and the Remaking of the Chinese Academy of Sciences." (With Cao Cong and Denis Simon). *Innovations*, Summer, 2006;

"State, Self-Organization, and Identity in the Building of Sin-US Cooperation in Science and Technology." *Asian Perspective* 32, 1, 2008;

"'The Sixth Modernization?' China, Safety, and the Management of Risks." *Asia Policy* (forthcoming).

Standards, Stakeholders, and Innovation: China's Evolving Role in the Global Knowledge Economy. (with Scott Kennedy). National Bureau of Asian Research (forthcoming).

Tricia Wang

I am researcher who studies the intersection of technology and migration in urban environments. I am interested in the increased access and constraints that come along with new information communication technologies (ICTs). My research is on (1) emerging practices of ICT usage among rural-urban migrants--in particular new forms of urban citizenship; (2) how citizenship and telecommunication policy factor into the incorporation of migrants in the urban space; and (3) new practices that emerge as a response to ICT policies. My regions of interest are marginalized and low-income communities in China, India, US and Mexico. My research methods are based in ethnography and quantitative ethno-survey methods.

For my planned dissertation work in China in 2009-2010, I will focus on how transnational digital infrastructures of information (e.g. the Internet) and nation-specific forms of communication (e.g. cell phone infrastructure) form as social structures that complexly shape migrant's communication practices. On another level, I am particularly interested in how practice shapes and is shaped by the architecture of physical and virtual space. To arrive at a better understanding of these processes, I will examine the use of Internet cafes and cell phones by migrant populations in Shanghai, China. My research fills in oversights from urbanization and policy studies by articulating inequality as embedded in virtual spaces and in the digital infrastructures and policies that support access or denial to everyday physical and digital spaces.

My experience in community organizing, media production, and cultural programming has enabled me to bring a strong inter-disciplinary approach to my academic work. Before joining UC San Diego's Sociology Ph.D. Program, I worked in New York City, San Francisco and San Diego developing digital literacy programs in low-income communities for the likes of the United Nations, NASA (National Aeronautics and Space Agency), Student Planet (Beijing), and the New York City public school system. My methodology drew upon narratives that were reflective of my students, this included popular media from hip-hop culture to web blogs.

The communities I worked with tended to be ignored by technology companies as serious users and creators. My work was an attempt to address this oversight. I eventually realized that technology-based literacy programs were limited in their effectiveness over time, as these were short-term solutions to larger external problems. The scope of the problem extended beyond the community to larger issues around policy and technology design. Many ICT policies did not seem to take into account low-income users. In order to better understand the intersection of policy and practice, I went to graduate school to learn how to conduct research within communities, and to contribute my research findings to better inform ICT policy makers, software engineers, and product designers about the everyday lives of low-income users.

I am currently a lead co-researcher on a long-term project at the Center for Comparative Immigration Studies that studies ICT usage in a Mexican immigrant sending and US receiving community. I am also affiliated with the India Project Group at the California Institute of Technology (CalIT2). In addition I am a co-researcher on popular discourse surrounding the Beijing Olympic Torch. My work on US-based ICT policy examines how internet access can be framed as a social right in a social democratic framework. I also advise freeDimensional, a non-profit based in NYC that links artists to social justice movements. I work on freelance projects on a consultancy basis. You can find my blog about Chinese youth culture, media, and technology at YouMeiTI.com