

RSC | Advancing the
Chemical Sciences



RSC-CSIR Chemical Sciences Innovation Symposium

at National Chemical Laboratory (CSIR), Pune

A 1-day symposium showcasing chemistry-led innovation and best practices in translation of laboratory science to products and services.

Symposium objectives:

To showcase UK and India best practices in commercializing scientific research, supporting academia-industry links and promoting innovation in the chemical sciences.

Organized and supported by:

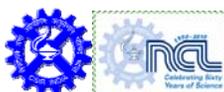
- Royal Society of Chemistry (UK) (Website: <http://www.rsc.org/>)
- FCO Science & Innovation Network, Foreign & Commonwealth Office, UK (Website: <http://ukinindia.fco.gov.uk/en/science-innovation-network/>)
- National Chemical Laboratory (Council of Scientific Industrial Research), Pune (Website: <http://www.nclinnovations.org/>)
- Venture Center, NCL Innovation Park, Pune (<http://www.venturecenter.co.in/>)

Symposium date:

- Monday, 30 Nov 2009

Venue:

- 2nd Floor, Lecture Hall, Main Building, National Chemical Laboratory, Pune – 411008
- Directions: <http://www.ncl-india.org/aboutncl/showfileinvisit.jsp?mid=2&sid=67&ssid=72>



RSC-CSIR Chemical Sciences Innovation Symposium, 30 Nov 2009, NCL, Pune

Schedule for Monday, 30 Nov 2009

Time	Topic and speaker	Min	Venue
0900	Start of day		
0900-0930	• Registration	30	2 nd Floor Lecture Hall
0930-0950	Welcome and introductions <ul style="list-style-type: none"> • RSC (Dr Alejandra Palermo) • British Deputy High Commission (Ms. Sheryl Anchan) • NCL (Dr V Premnath) 	20	2 nd Floor Lecture Hall
	SESSION 1: Creating value from University research Chair: Dr S Pal, Head, Physical & Materials Chemistry, NCL and Adjunct Prof, IISER		2 nd Floor Lecture Hall
0950-1025	Professor Krishna Ganesh – <i>Innovation in Education</i>	35	2 nd Floor Lecture Hall
1025-1100	Professor Graham Richards – <i>“Commercializing Chemistry”</i>	35	2 nd Floor Lecture Hall
1100-1115	• Tea/Coffee Break	15	2 nd Floor Lecture Hall
	SESSION 2: Government and industry as partners in driving innovation Chair: Prof Graham Richards		2 nd Floor Lecture Hall
1115-1150	Dr Hugo Vits - Building Competitive Edge through Industrial and Academic Partnerships	35	2 nd Floor Lecture Hall
1150-1225	Dr S Sivaram- <i>“Role and Relevance of Publicly Funded R&D Institutions in India in Driving Innovation : The CSIR Experience”</i>	35	2 nd Floor Lecture Hall
1225-1400	• Lunch and networking session for all participants	95	Tent outside Main Building
	SESSION 3: Chemistry and drug discovery Chair: Dr Ganesh Pandey, Head, Organic Chemistry, NCL		2 nd Floor Lecture Hall
1400-1435	Dr Debnath Bhuniya – <i>“Critical Aspects in drug Discovery: Prospects for India”</i>	35	2 nd Floor Lecture Hall
1435-1510	Dr Justin Bryans – <i>“The Future of Drug Discovery Research in the UK and beyond and the potential for academic partnerships”</i>	35	2 nd Floor Lecture Hall
1510-1525	• Tea/Coffee Break	15	2 nd Floor Lecture Hall
	SESSION4: Technology commercialization in practice Chair: Dr Balu Sarma, Praj		2 nd Floor Lecture Hall
1525-1600	Dr Alan Chorlton – <i>“The Solid State: Science, Services and Product opportunities”</i>	35	2 nd Floor Lecture Hall
1600-1635	Professor David Secher – <i>“Commercializing Research – the roles of the technology transfer office and the entrepreneur”</i>	35	2 nd Floor Lecture Hall
1635-1510	Dr V Premnath – <i>“Technology commercialization at NCL”</i>	35	2 nd Floor Lecture Hall
1710-1730	Closing remarks by Dr V Premnath	20	2 nd Floor Lecture Hall
1900	• Dinner for speakers, chairs and guests		NCL Guest House

Speakers and chairs (in alphabetical order of last names):

<p>Ms. SHERYL ANCHAN</p> 	<p>BIOSKETCH: Sheryl Anchan is the science and Innovation Advisor, based in the British Deputy High Commission in Mumbai. Sheryl has a lead role in developing marketing collateral for the Science and Innovation Network in India, as well as raising the profile of the network and its activities through various media including the website. She works very closely with the senior advisor to support the network's work on life sciences. She has an academic background in Botany and Horticulture.</p> <p>Sheryl will be delivering the welcome address and introductions on behalf of British Deputy High Commission.</p>
<p>DR JUSTIN BRYANS</p> 	<p>BIOSKETCH: Justin Bryans is currently Director Drug Discovery at the Medical Research Council Technology's (MRCT) Centre for Therapeutics Discovery based in Mill Hill, North London. He trained as a chemist at the Universities of York and Oxford, the latter being as a post-doc under Professor Sir Jack Baldwin. Since then he has gained over 17 year's experience as a medicinal chemist in a number of biotechnology and pharma companies, most recently at Pfizer. He has led projects across a wide range of therapeutic areas, including pain, anxiety, sleep disorders, cancer, cardiovascular and respiratory diseases, identifying ten clinical candidates and filing over 50 patents in the process. His current role at MRCT involves capitalising on World-class MRC biology, adding value via developing lead compounds, clinical candidates and antibodies, and partnering these with biotechnology and pharma companies to treat diseases of high unmet need. He has been a Fellow of the Royal Society of Chemistry for over ten years.</p> <p>TALK TITLE: The Future of Drug Discovery Research in the UK and beyond and the potential for academic partnerships</p> <p>ABSTRACT: Currently many Pharma and Biotech companies are struggling, primarily due to the high costs of supporting research and development coupled with insufficient high quality projects entering their research pipelines. This will likely create a short-fall in revenues in the future, leading to further shrinkage of this critical industry. One solution is for Pharma and Biotech companies to tap into the wealth of high quality research coming from academia and to work with organisations such as the MRCT's Centre for Therapeutics Discovery (CTD) to de-risk novel academic targets. The CTD, based in London, will build on the existing work of the MRCT Drug Discovery Group, expanding current capability and capacity to generate a high quality and flexible resource accessible to academics across the World. This presentation will outline the current issues faced by Pharma and Biotech companies and detail the capability of the CTD and the benefits to both academia and Pharma/Biotech of such a facility and how the team will work with academics across the World to select and progress both small molecule and antibody based drug discovery projects.</p>
<p>DR DEBNATH BHUNIYA</p> 	<p>BIOSKETCH : Dr. Debnath Bhuniya is currently employed in Drug Discovery Facility, Advinus Therapeutics, Pune, as Associate Director in Medicinal Chemistry. Prior to that he worked in Dr. Reddy's Laboratories Ltd during 2000-2006, and actively pursued research in metabolic disease area. He did his MSc in chemistry (1989) and PhD in synthetic organic chemistry (1995) from IIT Kanpur, India. After receiving post doctoral experience initially from National Tsing Hua University, Taiwan and subsequently from University of Nebraska at Lincoln, USA, he began professional career in the year 2000 as Senior Research Scientist – Medicinal Chemistry, in Dr. Reddy's.</p> <p>TALK TITLE: Critical aspects in Drug Discovery: Prospect for India</p> <p>ABSTRACT: Unavailable</p>

<p>DR ALAN CHORLTON</p> 	<p>BIOSKETCH: Dr Alan Chorlton worked for ICI and Zeneca for 17 years working in the fields of Pharmaceuticals, Agrochemicals and Speciality chemicals. He then moved on to found Cambridge Materials Science which was acquired by Millennium Pharmaceuticals in 2000. He was one of the founders of Pharmorphix and grew the company from 6 people to 40 today. Pharmorphix was acquired by Sigma Aldrich in 2006. AC's key strengths are a broad experience in many different chemical industries and turning opportunities in these fields into business opportunities.</p> <p>TALK TITLE: The Solid State: Science, Services and Product opportunities</p> <p>ABSTRACT: This talk will look at the identification of scientific opportunities and an assessment of their market potential and finally how these can be taken through to successful business ventures. The examples that will be used will cover a number of fields which will include solid state polymorphism, co-crystallisation and high throughput catalysis. The importance of the recognition of technologies that are used in one business sector that can be transferred to another business sector will also be highlighted.</p>
<p>DR KRISHNA GANESH</p> 	<p>BIOSKETCH: Dr KN Ganesh is currently the Director of Indian Institute of Science Education & Research, Pune and JC Bose fellow at NCL.</p> <p>Krishna N Ganesh obtained his B.Sc (1970) and M.Sc (1972) degrees in Chemistry from Bangalore University and later did his Ph.D (1976) in Chemistry at Delhi University (Guide: Prof GBV Subramanian). He was awarded a Commonwealth Fellowship to pursue higher studies University of Cambridge, UK which resulted in a second Ph.D degree to him in 1980 (Guide: Prof JKM Sanders).</p> <p>Dr Ganesh joined Centre for Cellular and Molecular Biology, Hyderabad in 1981 where he established a microsynthesis facility for oligonucleotide synthesis and started a research programme to investigate new motifs of DNA-protein interactions. In 1987, he moved to National Chemical Laboratory, Pune to establish a Bioorganic Chemistry research group. He became the Head of Organic Chemistry (Synthesis) Division in 1994. During his tenure at NCL till 2006, he was involved in policy development, resource generation and design, execution and evaluation of institutional research programmes in Organic Chemistry. He also served as a Member of several important internal institutional committees of the laboratory such as Medical Committee (Chairman, 1991-1994), Ph.D Guide Recognition Committee, Employee Task Assignment policy committee, Member Secretary - NCL Research Council, Students affairs committee etc. He led a team of NCL scientists for preparation of "A Road Map" for Organic Chemistry at NCL in 2005.</p> <p>Research: During his stay at NCL for 19 years, he established an internationally reputed school of research in therapeutic and diagnostic applications of oligonucleotide analogues, especially Peptide Nucleic acids (PNA). He also has worked on the structural biology of collagen peptides and emerging area of DNA nanotechnology. His work has been well recognized internationally through invitations to lecture at prestigious scientific meetings such as Gordon Conferences, IUPAC symposia, IRT in nucleosides and Nucleotides, Pacificchem meetings etc. He has published around 150 research papers in internationally reputed journals and guided 23 students for their Ph.D degrees.</p> <p>Dr Ganesh has served on membership of several important national committees such as Programme Advisory Committee (Organic Chemistry), Committee for Funds for Infrastructure Development in Science and Technology, New Delhi; Thrust Area Programme in Basic Biology and Scientific Advisory Committee on Resource-specific network programme Department of Biotechnology, New Delhi (2005-); Member, Indian Advisory Committee, Lady Tata Memorial Fellowship, Mumbai. Editorial Committee of Proceedings -Indian Academy of Sciences, Indian Journal of Chemistry, CSIR, New Delhi; Member, Expert committee, DST initiative on Nanoscience and Technology (2005-)</p> <p>Dr Ganesh has received a number of scientific recognitions including prestigious Shanti Swarup Bhatnagar Prize (highest scientific recognition in India for scientists below 45 yrs) in Chemical Sciences (1998), Millennium Medal of Indian Science Congress (2000) and Silver medal of Chemical Research Society of India (2004), TWAS Prize in Chemical Sciences (2006). He is a Fellow of Indian Academy of Sciences, Bangalore, Indian National Science Academy, New Delhi and National Academy of Sciences, Allahabad and Fellow of Academy of Sciences for Developing World (TWAS) and JC Bose National Fellowship, Department of Science & Technology, New Delhi</p> <p>TALK TITLE: Innovation in Education</p> <p>ABSTRACT: Unavailable</p>

DR SAURAV PAL



BIOSKETCH : Dr. Sourav Pal is the Head, Physical and Materials Chemistry Division of National Chemical Laboratory, Pune. He studied undergraduate five years Masters in Chemistry at Indian Institute of Technology, Kanpur from 1972-1977 after which he completed Ph D under the supervision of Prof. Debashis Mukherjee in Indian Association for the Cultivation of Science, Kolkata and subsequently joined National Chemical Laboratory (NCL), Pune. He received Ph D degree from Calcutta University in 1985. He was Post-Doctoral Associate at University of Florida, Gainesville, USA, 1986-87 and has been Alexander von Humboldt Fellow in 1987 at University of Heidelberg, Germany. In 1997, he was a Visiting Professor of the Institute for Molecular Science, Okazaki, Japan.

He has done extensive research in many-body electronic structure theory with focus on coupled-cluster theory for structure, spectra and properties. His work, starting with his early formulation of response theory in single-reference coupled-cluster theory to the pioneering response formulations in multi-reference version, has been highly respected and recognized as the leading ones in the area. He has worked on excited states, and more recently on electric properties of excited states. He has also extensive research experience in the area of chemical reactivity using conceptual density functional theory. Of late, he has been active in computational material science, contributing significantly to the structure, bonding and catalysis of zeolites, aromaticity/ anti-aromaticity of mixed metal clusters and more recently to the hydrogen storage materials. He has published about 150 research papers till 2008, which have received a large number of citations. He has been instrumental in setting up a Centre of Excellence in Scientific Computing at NCL, Pune.

He has been elected to the Fellowship of Indian National Science Academy in the year 2003. He is also a Fellow of the Indian Academy of Sciences and the National Academy of Sciences, India and is J. C. Bose National Fellow of DST (2008). Among several awards and honours he has received are the prestigious Shanti Swarup Bhatnagar Prize in Chemical Sciences in India 2000, INSA and CSIR Young Scientist Awards in 1987 and 1989 respectively, P. B. Gupta Memorial Award of IACS, Kolkata, 1993, Dr. Jagdish Shankar Memorial Lecture Award of INSA (2006), Bimla Churn Law Memorial Lecture award of IACS (2005) and Dai-Ichi Karkaria Endowment Fellowship of UICT, Mumbai (2004-05). He is a recipient of CRSI Bronze Medal in the year 2000 and CRSI Silver Medal in the year 2009.

Dr. Sourav Pal has successfully completed several projects from various grant agencies in India. He has been invited to numerous international conferences all over the world as an invited, plenary or highlighted speaker. He has delivered more than 100 invited lectures and acted as Session Chair/ Discussion Leader in several International and Indian Conferences. He is also in the Editorial Boards of several journals He is also actively involved as an Adjunct Professor in the Indian Institute of Science Education and Research in Pune.

Dr. Pal will be chairing the session on Creating value from University research

DR. ALEJANDRA PALERMO



BIOSKETCH: Dr Alejandra Palermo FRSC is currently Manager, International Projects Royal Society of Chemistry Alejandra graduated as a chemical engineer (Argentina) and her undergraduate studies included a period at the Chemical Engineering Department of the University of Sao Paulo, Brazil, where she worked on separations and tower dryers. Her subsequent PhD research in Materials Science dealt with theoretical and experimental studies of diffusion of high molecular weight hydrocarbons in zeolites. She went on to become an Assistant Professor in Chemical Engineering (UNMDP, Argentina) before joining the Chemistry Department at Cambridge University under a Royal Society Visiting Fellowship. She was subsequently awarded the position of CONICET External Research Fellow and for the next 7 years she continued to work in Cambridge in the field of heterogeneous catalysis and surface science. She has over 50 publications in the area of diffusion, heterogeneous catalysis, solid state electrochemistry and surface science, including synchrotron radiation methods. In 2002, on behalf of the RSC managed the EPSRC *International Review of UK Chemistry* and worked on follow-up action plan based on the recommendations of the IRC report. Since 2007 her role has changed to develop international projects, especially in India, Japan, South East Asia and Latin America. AP also leads the Pan Africa Chemistry Network. She is a member of the IUPAC task in *International Research Funding in the Chemical Sciences* project, a Fellow of the RSC and of IUPAC, and a member of the IChemE.

Dr. Palermo will be delivering the welcome remarks on behalf of RSC.

DR GANESH PANDEY

BIOSKETCH : Dr. Ganesh Pandey is currently the Head, Organic Chemistry Division, NCL, Pune.

Ganesh Pandey was born on 5th July 1954 at ancient holy city Varanasi, India and studied Chemistry at Banaras Hindu University, Varanasi. After completing his Ph. D. in 1979, he proceeded to Purdue University, U.S.A. for his post-doctoral studies in the group of Prof. Harry A. Morrison. On returning to India in mid 1983, he joined Indian Institute of Technology, Hyderabad as an Asst. Professor and continued there till July 1991. He moved to National Chemical Laboratory, Pune in 1991 and continuing as Director Grade Research Scientist.

Prof. Pandey is recipient of some of the most prestigious prizes in India such as P. C. Ray Memorial Award (2009) Shanti Swarup Bhatnagar Prize (1991), B. M. Birla Science Prize (1991), CSIR Young Scientist Prize (1988) and Vigyan Ratna (2002). Recently, he has also been awarded with J. C. Bose Fellowship. He is also the Fellow of all the three Science Academies of India.

Prof. Pandey has been a visiting Professor at Arizona State University, U.S.A. (July – December 1994) and Nagoya Institute of Technology, Japan (September-December 1999). He has also been occupying ICOS-10 visiting Chair Professorship at Hyderabad University. He has extensively traveled and lectured in USA, Germany, France and Korea and Russia.

His research interest includes total synthesis of natural products, development of newer synthetic methodologies and radical-ion chemistry.

Dr. Pandey will be chairing the session on Chemistry and drug discovery

PROF. GRAHAM RICHARDS

BIOSKETCH: Prof Graham Richards CBE recently retired from Oxford University where he was Head of the Department of Chemistry 1997-2006, the world's biggest chemistry department. His research focused on the applications of theoretical chemistry to drug discovery and he devised the widely publicized screensaver project which involved over 3.5 million personal computers in more than 200 countries. He now operates from the drug discovery company Inhibox Ltd.

He is the author of over 350 scientific papers and 17 books, including the recently published 'Spin-outs: creating businesses from university intellectual property'. He has consulted for several major pharma companies and is now senior non-executive director of IP Group Plc as well as holding a number of other directorships of biotechnology companies.

TALK TITLE: Commercialising Chemistry

ABSTRACT: The Department of Chemistry of the University of Oxford has contributed more than £80 million to the central University in the past decade by virtue of creating spin-out companies. Five of the fifteen companies launched have had successful initial public offerings, IPOs, and all but one remain in business. How this has been achieved will be described as will the importance of the ownership of intellectual property and the division of equity between the parties involved.

Further details may be found in the recent book, 'Spin-outs: creating businesses from university intellectual property', Harriman-House, 2009, with more information at <http://www.youtube.com/watch?v=N1duFIEzVPY>

Prof. Richards will be chairing the session on Government and industry as partners in driving innovation

DR BALU SARMA



BIOSKETCH: Dr. Balu Sarma obtained his B.Tech. degree from IIT, Kanpur in Metallurgical Engineering. He completed his masters and doctoral degrees in Engineering from Carnegie Mellon University, USA, where he also worked briefly as a Research Associate.

After working for a decade in the US, he returned to India and joined General Electric India Technology Center in Bangalore. As the Technology Growth Leader for General Electric (GE) in India, Balu was responsible for GE's In India For India initiatives. He was responsible for developing and implementing GE's technology strategy for India as well as creation and implementation of processes for Intellectual Property (IP) for GE businesses.

He is recipient of many awards including the AP State Merit Scholarship, National Talent Scholarship and Government of India Undergraduate Achievement award in his schooling days apart from being selected as a Young Leader of the Iron & Steel Society and GE Corporate Award for Achieving Chairman's Patent Filing Goal.

He has traveled extensively in personal and professional capacity. He has delivered papers and lectures in many international fora and published numerous papers in reputed technical journals. He also holds nine US patents.

In July 2008, he joined Praj as President and Chief Technology Officer of Matrix-the innovation center, the R & D division of Praj. Dr. Sarma has more than 20 years experience in Technology and Strategic Intellectual Property development. With a rich and varied experience of working with institutions and Companies like Praxair and GE, he will be driving the R&D agenda at Praj with a focus on commercialization of technology backed by strategic intellectual property.

Matrix-the innovation center at Praj is committed to biotechnology led process development which integrates processes and systems from mechanical, chemical, thermal engineering and biological processes. The second generation biofuels programme is also on track with the pilot plant slated for commissioning in November, 2008.

Dr. Balu Sarma will be chairing the session on Technology commercialization in practice

PROF. DAVID SECHER



BIOSKETCH: David Secher is an independent consultant in the area of research commercialisation – in the UK and internationally. He is based in the University of Cambridge. He is also a non-executive director of CellCentric Ltd; a Life Fellow of Gonville and Caius College, Cambridge; a visiting professor at the University of Sheffield; an advisor to the South Yorkshire Investment Fund; and the Chairman of Praxis-Unico (the UK research commercialisation association). In 2002, together with Lita Nelsen of MIT he founded Praxis, the leading UK technology transfer training company which in October 2009 merged with Unico.

For his contributions to creating “environments that favour enterprise, specialising in the practical aspects of commercialising the results of academic research”, he received the Queen’s Award for Enterprise Promotion in 2007.

Previous roles include founding Chief Executive of the N8 Research Partnership, a collaboration of the eight most research-intensive universities in the North of England; Director of Research Services, University of Cambridge; College Lecturer in Cell Biology and Graduate Tutor, Gonville and Caius College; Director of Drug Development, Cancer Research Campaign (now Cancer Research UK); and Director of Monoclonal Therapeutics, Celltech Ltd. As a consultant, he has advised universities, governments and individuals on commercialisation of intellectual property and he has acted as non-executive director of high technology and investment companies.

Secher graduated from the University of Cambridge (Churchill College) with First Class Honours in biochemistry. His PhD work at the Medical Research Council (MRC) Laboratory of Molecular Biology was with the late César Milstein (Nobel Prize-winner for discovery of monoclonal antibodies). Together with Derek Burke, Secher made and patented the first monoclonal antibody to human interferon. This work led to an interest in technology transfer and appointment as the MRC’s first Cambridge technology transfer officer.

Non-work interests include sailing, mountains, skiing and cooking.

TALK TITLE: Commercialising Research – the roles of the technology transfer office and the entrepreneur.

ABSTRACT: In the new “knowledge-based economy”, matching research with companies that can develop and market the products of that research, is becoming ever more important. How are the links between academic laboratories and businesses made and maintained? Technology transfer officers and entrepreneurs are both involved, but in very different ways. What type of people are these? How do they interact – with each other and with the researchers? How are they recruited and trained? What skills do they need? This talk will look at how technology transfer has developed in Europe and the USA and will focus on the people aspects of technology transfer.

DR. SWAMINATHAN SIVARAM

BIOSKETCH: Dr. Swaminathan Sivaram is a polymer chemist, mentor and science manager of distinction. He is presently the Director of National Chemical Laboratory (NCL/CSIR), Pune, India, one of the largest publicly funded research and development laboratories devoted to chemical sciences. Dr. Sivaram has over forty years of experience in basic research, process/product R&D and S&T management, both, in industry and academia. He is widely recognized for his contributions to polymer science, technology development, institution building and management of innovation in publicly funded organizations.

An alumnus of IIT-Kanpur (M.Sc. 1967), he received his Ph.D in Chemistry from Purdue University, W. Lafayette, Indiana, USA in 1971. After a brief stay as a Research Associate at the Institute of Polymer Science, University of Akron, USA he joined the Research Centre of Indian Petrochemicals Corporation Ltd., at Vadodara, India and rose to the position of Deputy General Manager (R&D). In 1988, he joined NCL as Head of the Polymer Chemistry Division. Dr. Sivaram built an impressive portfolio of polymer research activities at NCL, both, with Indian companies and global multinationals, making NCL a preferred destination for companies far and near to explore research collaboration through a partnership model. He also built a globally recognized research group in polymer science at NCL.

Dr. Sivaram is a recipient of the Vishwakarma Medal (INSA), Silver Medal of the Chemical Research Society of India, Millennium Medal of the Indian Science Congress Association, Distinguished Alumnus Award of IIT, Kanpur, Professor S.R. Palit Memorial Award of the Indian Association for Cultivation of Science, K.G. Naik Gold Medal of M.S. University, Baroda, FICCI Award in Physical Sciences and Om Prakash Bhasin Award.

Dr. Sivaram was awarded the Padma Shri by the President of India in 2006. He is also the recipient of J.C. Bose Fellowship of the Department of Science and Technology, Government of India for the period 2007-11.

He is an elected Fellow of all the learned academies of science and engineering in India, namely, Indian National Science Academy, New Delhi, Indian Academy of Sciences, Bangalore, National Academy of Sciences, Allahabad and Indian National Academy of Engineering, New Delhi. He is also an elected Fellow of the Academy of Sciences for the Developing World, Trieste, Italy.

He has lectured widely around the world and has been Visiting Professor at the University of Bordeaux, France, Free University of Berlin, Germany and as H.A. Morton Distinguished Professor of Polymer Science at the University of Akron, Ohio, USA

He has mentored the Ph.D thesis of 36 graduate students. He has to his credit close to 200 publications in peer reviewed scientific journals and is cited as an inventor in over ninety two patent applications and fifty one granted US patents. He has edited two books and serves on the Editorial Board of several National and International journals in chemistry and polymer science.

Dr. Sivaram is a Member of the Board of Governors of National Institute of Pharmaceutical Education and Research, Chandigarh, Indian Institute of Science Education and Research, Pune and Institute of Chemical Technology, Mumbai. Currently, he also serves as the Vice President of Indian Academy of Sciences, Bangalore. He also serves on the Board of Directors of Asian Paints India Limited, Apcotex Industries Limited and GMM Pfaunder Limited.

TALK TITLE: Role and Relevance of Publicly Funded R&D Institutions in India in Driving Innovation : The CSIR Experience

ABSTRACT: Unavailable

<p>DR. PREMNATH VENUGOPALAN</p> 	<p>BIOSKETCH: Dr V Premnath is currently the Head, NCL Innovations – the group within NCL charged with the responsibility of championing the cause of technology innovation within NCL. Dr Premnath is also the Founding Director of the Venture Center – a technology business incubator on NCL campus. Dr Premnath is also a Scientist in the Complex Fluids and Polymer Engineering Group at NCL.</p> <p>Dr. V. Premnath holds a B.Tech. from the Indian Institute of Technology - Bombay and a Ph.D. from the Massachusetts Institute of Technology, USA. He has also been a Chevening Technology Enterprise Fellow with the Centre for Scientific Enterprises, London Business School and Cambridge University, UK. He brings with him considerable experience in technology development and commercialization (two successfully commercialized families of products), working with start-up companies (in Cambridge-UK and India) and engaging with large corporations on research and consulting projects as project leader.</p> <p>TALK TITLE: Technology commercialization at NCL</p> <p>ABSTRACT: Technology development and translation to use has always been a pillar of activity at the National Chemical Laboratory (NCL), Pune (a constituent laboratory of the Council of Scientific and Industrial Research). In the recent years, NCL has been steadily redefining the systems and mechanisms facilitating technology development and its commercialization. NCL has created a dedicated resource center called NCL Innovations that supports, promotes and champions the cause of technology innovations within NCL. NCL Innovations consolidates several activities that influence the progress of technology into one umbrella. CSIR has moved progressively to change and improve government policies and rules to encourage scientist entrepreneurship. NCL has been developing the NCL Innovation Park as a destination for public-private partnerships in technology innovation. NCL has also initiated a technology business incubator called Venture Center that is experimenting with new models to promote science entrepreneurship. Venture Center focuses on start-ups relating to the chemical, materials and biological sciences. Venture Center is the first business incubator from the CSIR laboratories. This talk shall present these recent developments, some models being pursued and plans for the future.</p> <p>Dr. Premnath will be delivering the introductory remarks on behalf of NCL and closing remarks.</p>
<p>DR HUGO VITS</p> 	<p>BIOSKETCH: Dr Hugo Vits is currently the Bitumen Technology Manager for the Projects & Technology organisation in Shell, working out of Bangalore (India).</p> <p>He has 17 years experience in a variety of roles in the energy industry - including R&D site management, business acquisition and restructuring, commercial and regulatory management, business development, internal consultancy and research - across three continents (Europe, Latin America and Asia).</p> <p>Hugo has a PhD in Chemical Engineering (U of Minnesota, USA) and a Chemical Engineering Diploma (University of Concepcion, Chile). He has published technical papers on the engineering of plant and mammalian tissue culture.</p> <p>TALK TITLE: Building Competitive Edge through Industrial and Academic Partnerships</p> <p>ABSTRACT: Unavailable</p>