





TECHNICAL WORKSHOPS SERIES – 2015

One Day Symposium on				
Vaccine Development in India and Other Developing Countries – Challenges and Opportunities				
- Organized by Bioincubator at Venture Center and Emmes Services -				
Potential gains	 To understand the vaccine landscape in India and developing countries To deliberate on the current challenges in conducting high quality vaccine research in developing countries To present case studies on vaccine trials To explore potential collaborative avenues across industry, government, academia, research and medical fraternity in development and advancements of vaccines in developing countries 			
Workshop Director	Dr Ramesh Paranjape, Ex-Director, NARI, Pune			
Organized by	 BioIncubator at Venture Center, NCL, Pune Emmes Services Pvt Ltd, Bangalore 			
Supported by	 Venture Center Emmes Services Pvt Ltd, Bangalore Biolncubator at Venture Center, NCL, Pune 			
For whom	 Pharma and Biotech companies involved in vaccine developments and manufacturing Contract Research Organizations Vaccine development Researchers and Investigators NGOs, Social enterprises interested in supporting vaccine research and development in India Entrepreneurs and start-up companies interested in vaccine development and manufacturing in India Regulatory professionals and policy makers 			
When	5 December 2015 Time: 9 AM to 5 PM			
Where	Training Room, Venture Center, 100 NCL Innovation Park, Dr. Homi Bhabha Road, Pune			
Contact	Ms Lipika Biswas Phone: 91-20-25865877; Email: eventsdesk@venturecenter.co.in			
Cost	Event registration is free Limited seats: 30 For registration, please write to Lipika Biswas at eventsdesk@venturecenter.co.in Note:-			
	 Attendance only after confirmation of registration by organizers. Organizers reserve the right to accept or refuse or delay registrations so to optimize the composition of the group and hence maximize learning for all participants. 			







Introduction

Vaccines can have a major health impact in the developing world. Testing the vaccine in the populations that would likely benefit the most is often challenging as the clinical trial infrastructure is typically not as well developed as is necessary. This conference will outline the challenges in conducting high quality vaccine research in developing countries. Manufacturers, regulatory and clinical trial operations stakeholders will present their perspectives on streamlining processes to efficiently facilitate vaccine development on the approval pathway. Attendees will learn from the examples and discussions with the objective of leveraging successes and avoiding pitfalls in future clinical vaccine development.

The biotech/ biomed innovation ecosystem in western India and its epicenter at Pune. Excerpt from article in BIRAC's i3 newletter by Dr V. Premnath

Western India is the industrial and financial powerhouse of India. In biotechnology too, western India is the leader. As per the BioSpectrum ABLE Survey 2014, western India accounted for 43.3% of biotech revenues. Top biotech firms from western India included, Serum Institute of India, Reliance Life Sciences, Bharat Serums and Vaccines, GSK, Haffkine Biopharmaceuticals etc. The region also included top agro-biotech firms such as Ajeet Seeds and Mahyco, top industrial biotech company Praj and leading diagnostics companies like Span Diagnostics. The region is also home to several medical devices and diagnostics companies. Maharashtra was the top biotech state of the country and companies from this state accounted for 38.2% of revenue. Of the top 6-biotech cities, 3 (Pune, Mumbai and Ahmedabad) were from western India. Not surprisingly, the top research and academic clusters in western India are in Pune, Mumbai and Ahmedabad; smaller clusters exist in Vadodara, Nagpur and Goa.

And in this biotech industry landscape, *Pune* holds a special place. In the 2014 survey, Pune was the home to the largest biotech company and largest biopharma company in India, namely, Serum Institute of India Ltd and the largest industrial biotech company in India, namely, Praj Industries. Pune has also the privilege of being home to several R&D institutions with strength in biotech/biomed/ medical studies including National Chemical Laboratory (CSIR), National Institute of Virology (ICMR), National AIDS Research Institute (ICMR), National Centre for Cell Sciences (DBT), Agharkar Research Institute (DST), various departments in Pune University, IISER — Pune, Armed Forces Medical College, BJ Medical College, BAIF Development Research Foundation, National Research Centre for Grapes (ICAR), Directorate of Onion and Garlic Research (ICAR), Vasantdada Sugar Institute etc. Pune is also home to multiple business incubators - Venture Center, S&T Park of Pune University, MITCON Incubator etc.

Of the incubators in Pune, *Venture Center* has the greatest focus on biotech/biomed startups and is now home to 24 resident incubatee startups in the biotech/biomed space – which is probably the single largest concentrated cluster of innovative biotech/biomed startups in the country. The Venture Center innovation ecosystem is not only distinguished by the quantity and quality of startups but also close vicinity to R&D organizations – their people, facilities and networks, as well as a community that is probably second only to Bangalore in nurturing innovators and entrepreneurs. Besides the incubators in Pune, science entrepreneurship flourishes in incubators at IIT-Bombay (SINE), IIM-Ahmedabad (CIIE) and upcoming bioincubators at Savli near Vadodara and PERD at Ahmedabad.

With such a rich landscape of academia, research, startups and industry, western India in general and Pune in particular are poised to provide leadership in thought and action for the Indian biotech/ biomed industry. The fact that states in western India have nurtured biotech/biomed technology, innovation, entrepreneurship and industry with relatively lower support from the state governments (unlike the states in Southern India) indicates a latent potential that is yet to be exploited. If Bangalore promises to be India's Silicon Valley, Pune has all the makings to be the Route 128, Massachusetts!

Workshop Outline

Workshop shall consist of:

- Talks
- Panel discussions
- Networking sessions







Workshop includes

- Workshop includes tea, snacks and lunch at the Innovation Café
- Membership in mailing list to follow-up on workshop and advance intimation of emerging funding opportunities
- Access to a restricted website with links to key resources for med tech professionals

*Please note, the participants will have to arrange for their own travel/local transport and accommodation.

- For accommodation (standard and budgeted hotels) please visit: http://www.venturecenter.co.in/puneguide/standard.php
- For accommodation (deluxe and luxury hotels) please visit: http://www.venturecenter.co.in/puneguide/deluxe.php
- For local transport details visit: http://www.venturecenter.co.in/puneguide/taxi.php







Workshop Schedule				
Time (hrs)	TOPIC	Speaker		
0900-0930	Registration and tea			
0930-0945	Introductions	Premnath V; Archana Sarda		
0945-1100	Session 1: Vaccine development landscape • Key note address • Opportunities and challenges in vaccine development • Emerging trends in vaccine R&D	Key note Speaker: Suresh Jadhav Speakers: Prasad Kulkarni, Rajat Goyal Coordinator: Ravinder Anand		
1100-1115	Networking tea			
1115-1230	Session 2: Vaccine trials case studies Conducting large community based vaccine clinical trials in India Challenges in conducting large vaccine trials with minimum infrastructure: Ebola trial in Sierra Leone.	Speakers: Tushar Tewari, Robert Lindblad Coordinator: Rajat Goyal		
1230-1330	Lunch			
1330-1445	 Session 3: Trial designs, regulatory approvals and incorporation in national programs Statistical design and analyses issues in vaccine trials Indian Regulatory landscape How an approved vaccine becomes a part of the national vaccine program and eventually help address public health issues 	Speakers: Ravinder Anand ; Anil Kumar, Jan Peterson Jyoti Joshi Coordinator: Tushar Tewari		
1445-1530	Session 4: New technology showcase followed by panel discussion • Short presentations by selected technology developers from R&D orgs and startups	Speakers: Vishwas Joshi, M V Krishnasastry, A H Bandivdekar, Ranjana Deshmukh Coordinator: Premnath V		
1530-1600	Networking tea			
1600-1700	Session 5: Panel Discussion: Challenges and opportunities in vaccine development, approval and commercialization in India.	Panel: All speakers and Subhash Kapre, Sambuddha Ghosh Coordinator: Ramesh Paranjape		
1700-1715	Closing comments and closure of the event	Premnath V		







Speakers and Panelists (in alphabetical order of last names)



DR RAVINDER ANAND is a Vice President and Senior Statistician at The Emmes Corporation. He currently serves as the Principal Investigator (PI) for multiple pediatric studies including Best Pharmaceuticals for Children Act (BPCA) Data Coordinating Center, a project in which multicenter PK/PD, safety and efficacy clinical trials are conducted in a variety of therapeutic areas in accordance with the BPCA 2012 and Studies of Pediatric Liver Transplantation (SPLIT), a multi-center study of children undergoing liver transplantation. He has over 20 years of experience in design and analysis of data from clinical trials, retrospective and prospective observational studies. His statistical area of expertise includes design of adaptive clinical trials, development of group sequential designs for interim analyses, and analysis of longitudinal data. He regularly serves on NIH grant review committees and DSMBs. Since, joining Emmes in 1993, Dr Anand has supported studies in many therapeutic areas including vaccines and infectious diseases, ophthalmology, liver diseases, liver transplant, and islet cell transplant.

DR RANJANA DESHMUKH is MD (Pathology) and PhD (Virology) and has over 35 years of clinical, research and teaching experience in the areas of anti-virals, vaccines, Cytokines, Rabies, HIV, etc. She is a research guide for MD & PhD students at Mumbai University and Maharashtra University of Health Sciences. She has over 100+ publications in national and international journals.



DR SAMBUDDHA GHOSH is the founding Director of AbGenics LifeSciences Private Ltd and ABEL Biosolutions Private Ltd and a vaccine technology developer based in Pune. Dr Ghosh has worked as a senior scientist at Hoechst Roussel Vet and Intervet (AkzoNobel). He has functioned in senior management positions of various other multinational organizations and vaccine operations for more than 20 years. He is a doctorate in Veterinary Virology, with experience in vaccine production, quality control as well as developmental and translational research. His major focus area has been vaccine research, production and quality control with proficiency in the areas of vaccine development, CMC submission, planning and development, including composition requirements and strategic options.



DR RAJAT GOYAL leads and manages the IAVI India country program. His key responsibility is to shape the strategy of the India program and provide integrated support for IAVI's activities and initiatives in the country. He has several years of experience and expertise in managing business P&Ls (profit and loss), product development, creating and managing public private sector partnerships and scientific innovation. Prior to being at IAVI, he worked as Vice President at ICON Clinical Research where he was responsible for managing ICON's Clinical Operations in the Asia-Pacific Region. As Global Project Director for Advancing Rotavirus Vaccine Development (ARVAC) Project at PATH, he was responsible for a wide range of new vaccine and other health technology product development, developing public private sector partnerships for sustainable, culturally ethical and adaptive heath interventions, influencing policymakers and enabling communities. Before joining PATH, Dr. Goyal was the Vice President of Reliance Industries Limited (RIL) heading the Reliance Clinical Research Services (RCS) in Mumbai, India; and before that the Medical Advisor with Dabur India Ltd, a leading oncology product manufacturer in India. During his tenure at Reliance and Dabur, he was responsible for conceptualizing, implementing and managing applied research program including clinical development for the complete life cycle of a biopharmaceutical product from molecule to marketing and introduction. Dr Goyal received his basic medical degree from King Edwards Memorial Hospital in Mumbai. He specialized as a hemato-oncologist. In addition, he was a research fellow at Rush Cancer Institute in Chicago and a visiting fellow at Beth Israel Hospital in Boston and Royal Marsden Hospital in UK.



DR SURESH JADHAV, M.Pharm., Ph.D. is the Executive Director of Serum Institute of India Pvt. Ltd., Pune. His 45 years technical expertise includes QC/QA/cGMP/GLP/GCP techniques, inspections of laboratories and validation of various production and quality control processes, pharma/toxicological screening of various drugs, toxins & venoms etc. & drugs pricing. He has also led the project of development and introduction of Meningococcal A Conjugate Vaccine in Sub-Saharan African belt, the development of Seasonal & Pandemic Influenza Vaccines and also played major role in acquisition of Bilthoven Biologicals, a Netherlands based Govt. Vaccine manufacturing company. He is also associated with DCVMN since its inception in 2000 and was the President of DCVMN from 2003 till 2008. He held the positions of GAVI Board / Alternate member as also member of GAVI PPC. He is currently member on various boards i.e. European Vaccine Initiative, FastVac, and Health Innovation in Practice Board. He is closely associated with the Task Force of Sabin Vaccine Institute, WHO IVR-IVAC and Decades of Vaccines (DoV) etc. He is the Chairman of Expert Committee on Vaccines and other Biologicals and also a member on the Scientific Body of Indian Pharmacopoeia Commission. He has participated in several collaborative studies for making revisions in international reference standards for WHO, NIBSC, NVI/RIVM etc. and has published more than 100 technical papers in national & international journals.









DR JYOTI JOSHI is a medical doctor with specialization in public health and is currently working as Deputy Director and Lead- Adverse Events Following Immunization, vaccine quality and safety at the Immunization Technical Support Unit (ITSU), Public Health Foundation of India. The ITSU provides technical support to the Immunization Division, MoHFW in improving coverage and quality of immunization services, new vaccine introductions and health system strengthening in India

She completed her M.D. degree (Community Medicine) from the Lady Hardinge Medical College, New Delhi, and a Masters of Sciences (MSc) Infectious Diseases from University of London, London School of Hygiene and Tropical Medicine. She is an ADVAC alumna (Fondation Merieux) and has facilitated courses in infectious diseases (immunization and surveillance) at PHFI.

Dr Jyoti carries a mix of field experience and technical expertise gained in the government sector in India and United Arab Emirates (UAE). She has been involved in the introduction of new vaccines into the National Immunization Program such as the pentavalent vaccine, IPV Inactivated Polio Vaccine (IPV), Rotavirus vaccine, Pneumococcal vaccine and hexavalent vaccine in India and UAE. Her work has focused on establishing the AEFI Secretariat at ITSU, strengthening vaccine safety surveillance in India, Measles surveillance and implementation of International Health Regulations (IHR) in UAE. Her areas of interest in immunization are VPD surveillance, vaccine pharmacovigilance, monitoring and evaluation of immunization programs and innovations in vaccine delivery.



DR VISHWAS JOSHI is Founder and Director of Seagull Biosolutions Pvt Ltd. He is a molecular virologist with over 18 yrs experience in bio/pharmaceutical discovery research at leading Indian pharmaceutical companies. He was associated with the discovery & pre-clinical development of 2 NCEs and also helped establish the protein therapeutics research center of Glenmark Pharmaceuticals at Neuchatel, Switzerland. Dr. Vishwas has concieved & developed the eSAME technology platform of Seagull BioSolutions.



MR ANIL KUMAR joined Emmes in 2011 as a biostatistician, with two post graduate degrees in statistics and strong clinical research experience of more than 15 years and, will serve as the project director for this study. Prior to joining Emmes, Mr Kumar was leading a team of Statisticians and Statistical Programmers in Novartis Healthcare, Hyderabad, India. Anil currently supports projects at Emmes including a pilot study on brain injury and mechanisms of action of hyperbaric oxygen for persistent post-concussive symptoms after mild traumatic brain injury. Anil also supported projects at Emmes including Phase I Praziquantel Pharmacokinetics study in Pregnancy and During Lactation of females infected with schistosomiasis, Phase I/II study to characterize the HCD50, HCD90 and Transmissibility of Nontypeable Haemophilus influenzae in a Human Colonization Model in Healthy Adults and Phase III Psoriasis Study. Anil has served as project director and/or lead statistician for several bioavailability/bioequivalence studies and Phased clinical studies carried out in support of INDs (Investigational New Drug Applications), NDAs (New Drug Applications) and ANDAs (Abbreviated New Drug Applications) in various therapeutic areas including Respiratory, Immunology and Infectious Diseases, Cardiovascular, Neuroscience and Oncology. He has a unique combination of experience in the areas of Biostatistics, Trial Design, Sample Size Estimation, CDISC Data Standards implementation, Clinical Programming and Pharmacokinetics modeling.



DR SUBHASH V KAPRE, PHD is Ex-Executive Director of the Serum Institute of India, Ltd ("Serum") from 1992-2009. Dr Kapre served as Director of Akorn Inc since 2007 until March 8, 2010. He has been a Member of Scientific Advisory Board at Xenetic Biosciences Plc since July 2012. In 1969, he joined Serum Institute of India ("Serum") direct from University. Dr Kapre has devoted his professional lifetime to the increasing success of Serum culminating in his appointment in 1992 as an Executive Director. He has had full-time, hands-on experience in every aspect of development, manufacture, marketing and business development and has been a key driver in building Serum from small scale domestic vaccine producer into India's largest biotech business and one of the world's largest vaccine manufacturers. He has been honored by Serum Institute of India as Director Emeritus upon his retirement. Dr Kapre has been on the board of directors in the US by holding positions on two publicly-traded companies. He gained his MSc in Biochemistry at Pune University in 1969, later being awarded his PhD in Microbiology in 1977.









DR MV KRISHNASASTRY is Scientist F at the National Centre for Cell Science in Pune. NCCS is a leading DBT institute. His research interests include understanding the dynamics of caveolae in mammalian cells and Investigation of the role of 'Hypothetical Proteins' of Mycobacterium tuberculosis. He is also studying new strategies for vaccine development.



DR PRASAD KULKARNI is a graduate (MBBS) and post-graduate (MD) of B.J. Medical College, Pune with specialization in Clinical Pharmacology. His first assignment was of a teacher of Clinical Pharmacology in a medical school in Pune. He joined Serum Institute of India Ltd (SIIL), Pune in 2000, and is now its Medical Director. Today, Serum Institute is the largest manufacturer of vaccines in the world. Dr Kulkarni has several years experience in clinical research, medical advice and pharmacovigilance. His special focus has been on clinical development of new vaccines and therapeutic large molecules at SIIL. Dr Kulkarni has been involved in many clinical studies on vaccines; especially on BCG, Measles, Rubella, MMR, DT, Td, DTP, Hepatitis B, Hib, their combinations, Rabies, live and inactivated H1N1 vaccines, Rotavirus, Influenza vaccines, Recombinant BCG vaccine, meningitis vaccine etc. He has also worked on clinical studies of various therapeutic products like recombinant EPO, Polysialated EPO. Rabies monoclonal antibody, somatostatin etc. He has more than 40 publications in international peer-reviewed journals like the New England Journal of Medicine, Pediatric Infectious Diseases Journal, Clinical Infectious Diseases, etc.; three book chapters; and many posters in international conferences. He has been a faculty in many national and international conferences; workshops and seminars and has delivered several lectures. He is an expert in good clinical practices, pharmacovigilance and regulatory practices, and has also been involved in the scientific and pre-clinical development of new vaccines and therapeutics of Serum Institute of India. He has also been a temporary advisor to the World Health Organization. Dr Kulkarni has been a faculty to the annual Indian Vaccinology Course (INDVAC) at Christian Medical College, Vellore since 2010 till date. He has been a faculty to the MSc (Virology) course at the National Institute of Virology (NIV), Pune since 2006. He was a member of Ethics Committee at Nobel Hospital, Pune during 2008-2014. He is also an Associate Editor at the journal Human Vaccines and Immunotherpaeutics which is published from USA. He has been a referee to many international medical journals. He has also advised many national and international health bodies on various issues. He has guided many students in clinical research. He has travelled extensively in India and globally in connection with his work. He is also a member of the American College of Clinical Pharmacology.



DR ROBERT LINDBLAD is with EMMES Corporation for the past 14 years. He is the Emmes Medical Officer for the CDC initiated Ebola vaccine clinical trial in Sierra Leone and for Multiple PATH initiated vaccine clinical trials. He has also served as PI on multiple other projects at the EMMES Corporation. He has taken the lead at EMMES in safety monitoring, establishing MedDRA coding, WHO drug coding, developing a comprehensive safety reporting system and a state of the art multi-relationship electronic document storage regulatory tracking system. Prior to joining EMMES, Dr Lindblad served as Medical Officer at FDA, Center for Biologics and Evaluation Research, Division of Therapeutic Trials and Application, Branch of Immunology and Infectious Disease, reviewing multiple IND and BLA submission to the agency. In addition, Dr Lindblad is board certified in Emergency Medicine with a career spanning 30 years of practice in Bethesda, Maryland, Canton, Ohio, Chicago Illinois and Philadelphia Pennsylvania.



DR RAMESH PARANJAPE was Director at National AIDS Research Institute, Pune. He received his PhD in Microbiology from University of Madras and was the recipient of National Science Talent Search Scholar (1969-1975) award. He did his Post-Doctoral Fellowship at the Laboratory of Parasitic Diseases, NIH and WHO Fellowship at Case Western Reserve University, Cleveland, Ohio, USA. Immunology of HIV infection is his main area of interest and established the presence of strong, poly-clonal cross-clade cytotoxic T lymphocyte response in the early sero-converters. He has more than 50 scientific publications in peer reviewed national and international journals and has contributed to WHO (South East Asia) laboratory guidelines.









MR JAN S PETERSON, MS, CCRA, RAC, MICR, ASQ CBA is a director of regulatory affairs and project leader at The Emmes Corporation with broad experience in regulatory science and the management of international clinical trials. He is a current member of the Association of Clinical Research Professionals (ACRP) Regulatory Affairs Committee and a contributing Item Writer to the Academy of Clinical Research Professionals Global CCRA Certification Exam committee. Mr. Peterson is Regulatory Affairs Certified (RAC) by the Regulatory Affairs Professionals Society (RAPS) and is a Senior Member of the American Society for Quality (ASQ) and an ASQ Certified Biomedical Auditor (CBA). He currently serves as the Project Director for an AIDS-related vaccine regulatory submissions task under a contract funded by the National Institute of Allergy and Infectious Diseases (NIAID), and is Director of Regulatory Affairs for intramural and extramural clinical research trials performed under contract for the National Eye Institute (NEI), as well as commercially sponsored trials in ophthalmology and for other projects. He recently served as the Project Director and Lead Auditor for the quality assurance auditing contract sponsored by NIAID that assessed monitoring quality for AIDS-related clinical trials in 15 countries, including ICMR/NARI sites in Chennai and Pune, India.



DR TUSHAR TEWARI works at PATH as a Team Leader, leading a team for a large Phase III rotavirus vaccine project. He is also working as a medical officer on an ETEC vaccine study in Bangladesh. He has been with PATH for past 3 years. Prior to joining PATH he has worked as clinical lead/medical monitor in both CRO and pharmaceutical industry for more than 12 years. He has lead various studies in oncology, ophthalmology, infectious disease and vaccines in India, Bangladesh, Nepal, Vietnam and Thailand. Tushar is a MD in Clinical pharmacology from JIPMER, Pondicherry and has received training in vaccinology from Pasteur Institute, France.



Ms Archana Sarda, MS, joined Emmes in 2001 and has led the development of many Emmes products and technological aspects of large clinical research and bioinformatics projects. She serves on the Board of Directors at Emmes Services Pvt Ltd and has more than a decade of experience working on clinical trials. Ms. Sarda is an accomplished leader with strong experience in building and managing high-performing teams. She plays a key role in shaping the vision and strategies for Emmes India and achieving the business goals of the organization. Since 2006, she has directed her energy toward the establishment and growth of the Emmes India office. She is responsible for overall brand, communications, culture, initiatives and partner relations at Emmes India. Ms Sarda's currently serves as the primary point of contact for several ongoing NIH-sponsored studies in India. She has extensive experience with the technical aspects of the electronic data capture (EDC) development, data collection and quality process needed for the effective management of a clinical trial. In her prior experience at Emmes, she was an integral part of the Emmes vaccine and infectious diseases leadership team. She was responsible for implementation of Emmes products for all studies under the infectious disease group at Emmes. Ms Sarda has a Bachelor's degree in Computer Science from Bombay University and a Master's degree in Information Technology from George Mason University, Fairfax, VA, USA.



DR PREMNATH V is the Founding Director – Venture Center and Head, NCL Innovations. He holds a BTech from the Indian Institute of Technology - Bombay and a PhD from the Massachusetts Institute of Technology, USA. He has also been a Chevening Technology Enterprise Fellow with the Center for Scientific Enterprises, London Business School and Cambridge University, UK. He brings with him considerable experience in technology development and commercialization, working with start-up companies (in Cambridge-UK and India) and engaging with large corporations on research and consulting projects as project leader.







About the Organizers			
Biolncubator at Venture Center Supported by BIRAC	The BioIncubator at Venture Center aims to nucleate and nurture technology and knowledge-based enterprises leveraging knowledge in the areas of biotechnology (biopharma, agrobiotech, industrial biotech, and clean technology), biomedical engineering/ devices/ diagnostics, biomass value addition/ renewable fuels/chemicals/materials, bioinformatics, bio/medical services and related disciplines. Created with support from DBT-BIRAC under the Bioincubator Support Scheme. For more information, visit http://www.bioincubator.venturecenter.co.in/		
Emmes	Emmes is a Contract Research Organization (CRO) located in Bangalore, India and Rockville, Maryland, USA. Emmes is a place for people who are passionate about contributing to medical advances and public health through conduct of effective clinical research. Our highest priority is the scientific integrity of our research efforts. For more information, visit: http://www.emmes.in/index.html		

Supported by			
birac Ignite Innovate Incubate	Biotechnology Industry Research & Assistance Council is a new industry-academia interface and implements its mandate through a wide range of impact initiatives , be it providing access to risk capital through targeted funding, technology transfer, IP management and handholding schemes that help bring innovation excellence to the biotech firms and make them globally competitive. For more information about BIRAC: www.birac.nic.in		
VENTURE C E N T E R	Entrepreneurship Development Center (Venture Center) – a CSIR initiative – is a Section 25 company hosted by the National Chemical Laboratory, Pune. Venture Center strives to nucleate and nurture technology and knowledge-based enterprises by leveraging the scientific and engineering competencies of the institutions in the Pune region in India. The Venture Center is a technology business incubator supported by the Department of Science & Technology's National Science & Technology Entrepreneurship Development Board (DST-NSTEDB). Venture Center's focuses on technology enterprises offering products and services exploiting scientific expertise in the areas of materials, chemicals and biological sciences & engineering. For more information, visit http://www.venturecenter.co.in/		
Emmes	Emmes is a Contract Research Organization (CRO) located in Bangalore, India and Rockville, Maryland, USA. Emmes is a place for people who are passionate about contributing to medical advances and public health through conduct of effective clinical research. Our highest priority is the scientific integrity of our research efforts. For more information, visit: http://www.emmes.in/index.html		