# BIRAC Foundation Day

**20th March, 2013**

**Venue:** Stein Auditorium, India Habitat Centre, New Delhi

## Programme

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<th>Time</th>
<th>Activity</th>
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<tr>
<td>0830 – 0930 hrs</td>
<td>Registration</td>
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<td>0930 – 1100 hrs</td>
<td>The Foundation Day : Prologue</td>
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| 1000 – 1100 hrs | **Addressing Global & National Priorities through Grand Challenges & Mission Mode approaches: Sharing experiences**  
How do Grand Challenges and other mission mode programmes operate and address global and national challenges? What can be learnt from global perspectives and what are the policy implications for transition economies such as India?  
**Moderator:**  
Dr. Renu Swarup, MD, BIRAC & Adviser, DBT  
**Speakers:**  
Dr. Steve Buchsbaum, Gates Foundation  
Dr. Kiran Mazumdar-Shaw, Chairman & MD, Biocon  
Dr. Ted Bianco, Acting Director, Wellcome Trust  
Mr. Tarun Vij, Country Program Leader – India, PATH  
Prof. Kalervo Väänänen, Rector, University of Turku  
**Rapporteurs:**  
Dr. Shilpi Gupta, BIRAC  
Ms. Sonia Gandhi, BIRAC |
| 1100 – 1200 hrs | **Inaugural Session**  
i. Welcome Address: Setting the Scene - Dr. Renu Swarup, Adviser, DBT & MD, BIRAC  
ii. Address by Dr. K. VijayRaghavan, Secretary, DBT and Chairman, BIRAC  
iii. BIRAC: Industry Perspective - Dr. Kiran Mazumdar-Shaw, Chairman & MD, Biocon  
iv. **Foundation Day Lecture – Dr. Bala S Manian, Reametrix**  
v. Inaugural Address by Chief Guest Shri. Sudini Jaipal Reddy, Hon’ble Minister of Science & Technology and Ministry of Earth Sciences, Govt. of India  
vii. Vote of Thanks – Dr. Satya Dash, BIRAC |
| 1200 – 1230 hrs | Networking Tea                                                            |
| 1230 – 1400 hrs | **Fashioning, Fostering and Scaling the Indian Bio-economy- A coherence strategy for delivering the promise**  
Bio-innovation is a long arduous journey. The Indian bio-economy would be shaped by alignment of a vibrant industry and an equally open academia who can address the challenges in partnership. The session would discuss- what is the strategy how do we build on what we... |
have achieved so far, what are the bottlenecks, how does India seize the opportunity and overcome barriers. The discussion would also focus on what are the specific strategies for healthcare, food & energy and how do we build an innovation system, that delivers an enterprise that is effective.

**Moderators:**
Dr. Utkarsh Palnitkar, MD, Pluripotent Capital Ltd.

**Panelists:**
Dr. Suri Venkatachalam, CEO, Connexios Life Sciences Pvt. Ltd.
Prof. V. S. Chauhan, Director, ICGEB
Dr. G. B. Nair, ED, THSTI
Mr. Shrikumar Suryanarayan, CEO, Sea6 Energy
Dr. P.M. Murali, Hon. President, ABLE
Dr. K.V. Subramaniam, President and CEO, Reliance Life Sciences
Dr. Anil Raghavan, MD, Quintiles India
Mr. Pramod Chaudhari, Executive Chairman, Praj Industries

**Rapporteurs:**
Dr. Banusri V., BIRAC
Dr. Azmi Naqvi, BIRAC

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<th>Time</th>
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<tr>
<td>1400 – 1500 hrs</td>
<td>Lunch Break</td>
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<tr>
<td>1500 – 1630 hrs</td>
<td>Learning from Global Grand Challenges</td>
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<td>The Global Grand Challenge winners would share their experiences and speak about their innovation research. They will also provide an insight into the learning for winning an award, their experience from the award process and how the award has helped catalyse in finding a solution to the problem(s) they worked on.</td>
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<td><strong>Moderator</strong></td>
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<td>Dr. Steve Buchsbaum, Gates Foundation</td>
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<td><strong>Speakers:</strong></td>
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<td>Dr. P. Ling Lin, Assistant Professor, Dept. of Pediatrics, Children's Hospital of Pittsburgh of UPMC</td>
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<td>Dr. Szabolcs Marka, Associate Professor of Physics, Columbia University</td>
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<td>Dr Peter Ryan, Eliminate Dengue Program Manager, Monash University, Australia</td>
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<td><strong>Rapporteurs:</strong></td>
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<td>Dr. Jyoti Shukla, BIRAC</td>
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<td>Dr. Niladri Ganguly, BIRAC</td>
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<td>1630 – 1700 hrs</td>
<td>Networking Tea</td>
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<td>1700 – 1800 hrs</td>
<td>Perspectives from Indian Grand Challenges Winners</td>
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<td>The Indian Grand Challenge Award winners, would discuss their area of focus and innovation research. They would also discuss how the process of participating and winning a Grand Challenge award has made an impact on their research and what new learnings do we get.</td>
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<td><strong>Moderator:</strong></td>
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<td>Dr. Deepanwita Chattopadhyay, MD &amp; CEO, IKP Knowledge Park</td>
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**Speakers:**
Dr. Dhananjaya Dendukuri, CEO & Co-Founder, Achira Labs  
Dr. Kanury V. S. Rao, Group Leader, Mammalian Biology: Immunology, ICGEB  
Mr. Adithya Vasudevan, Founder-Director, CHANGE

**Rapporteurs:**
Mr. Rajneesh Kumar, BIRAC  
Dr. Suraksha S. Diwan, DBT-BIRAC

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<tr>
<td>1800 hrs</td>
<td>Meeting wrap up</td>
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<td>1900 hrs</td>
<td>Dinner</td>
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# BIRAC Grand Challenges Meet: Setting the future agenda

**21st – 22nd March, 2013**

**Venue:** Jacaranda Hall, India Habitat Centre, New Delhi

## Programme

### Day I: 21st March, 2013

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<th>Time</th>
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<tr>
<td>0930 – 1030 hrs</td>
<td><strong>Chair</strong> – Dr. K. VijayRaghavan, Secretary, DBT and Chairman, BIRAC</td>
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<td>Plenary Lecture I – Prof. Markus Maeurer, Karolinska Institutet</td>
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<td>Plenary Lecture II – Dr. Manju Sharma, Former Secretary, DBT</td>
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<td>1030 – 1045 hrs</td>
<td>Networking Tea</td>
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<td>1045 – 1200 hrs</td>
<td><strong>Track: Science for Family Health</strong></td>
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<td><strong>Securing Maternal &amp; Child Health in India: Science interventions for improved survival and development</strong></td>
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<td>The maternal and child health indicators for India, which also influence the Human development Index, need to improve soon. India accounts for a fifth of the world's births and quarter of the world's child deaths. The session will discuss underlying challenges in ensuring health and development for the mother &amp; child in the rural and urban settings. The focus would be on how can science, innovation and technology helps to promote survival and ensures optional nutrition for every child. How should science and innovation be directed to meet this goal. What can science and technology offer to the MCH. How should BIRAC catalyze this?</td>
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<td><strong>Moderator:</strong> Dr. Vinod Paul, Chairperson, Pediatrics Unit, AIIMS</td>
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<td><strong>Speakers:</strong> Dr. M. K. Bhan, Former Secretary, DBT and Founder Chairman, BIRAC</td>
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<td>Mr. Keshav Desiraju, Secretary, Health &amp; Family Welfare</td>
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<td>Dr. Rajesh Jain, Jt. Managing Director, Panacea Biotec Ltd.</td>
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<td><strong>Track: Agri &amp; Food: Improving Productivity &amp; Nutrition</strong></td>
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<td><strong>Where is Indian agri-biotech headed: Present status &amp; challenges</strong></td>
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<td>The agri-sector in India is still the largest employing 52% of the Indian workforce sector but its overall contribution to the national economy has shown a downward trend (currently it accounts for less that 15% of the GDP). The Indian agriculture is characterized by small to medium land holdings and its dependency on monsoon. With the Indian population predicted to grow to 1.5 billion, immediate steps need to be taken to address the challenges that beset this sector. This discussion would provide an umbrella view of the bio-agri sector, the challenges especially in technology development and implementation of programmes on food security, and diffusion of agricultural best practices and if any lessons from other developing countries can be learnt. The focus would be on what contribution can new technologies make? What should be our strategy for meeting the challenges? What role can BIRAC play</td>
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<td><strong>Moderator:</strong> Dr. Vijay Raghavan, Sathguru Management Consultants Pvt. Ltd.</td>
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<td><strong>Speakers:</strong> Dr. Nagarajan, Ex-DDG, ICAR</td>
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<td>1200 – 1215 hrs</td>
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| 1215 – 1330 hrs | Session-II| Securing Maternal & Child Health in India: Research & Development in critical disease and development areas: | Dr. Harish Iyer, CEO, Shantha Biotechnics (Moderator)  
Dr. Gagandeep Kang, Christian Medical College Vellore  
Dr. S. Sinha, Adviser, DBT  
Dr. Shanjini Bhatnagar, Professor, THSTI  
Dr. Divya Bijlwan, Vice President, Biological E.  
Dr. Siddharth Ramji, Professor (Pediatrics), Maulana Azad Medical College, New Delhi | Dr. Jyoti Shukla, BIRAC                         |
| 1330 – 1430 hrs |          | Lunch                                                                |                                                                                                     |                                    |
| 1430 – 1600 hrs | Session-III| Surveillance, Detection & Prevention: Keeping India healthy through smart diagnostics & devices | Dr. Seetharam Annadana, Syngenta (Moderator)  
Dr. Ajay Parida, Executive Director, MSSRF  
Dr. J. P. Khurana, Professor, Department of Plant Molecular Biology, University of Delhi  
Dr. M. Udayakumar, Professor, University of Agricultural Sciences  
Dr. Paresh Verma, Managing Director, Bioseeds Research India Pvt. Ltd.  
Dr. Vilas Parkhi, Senior Scientist, Advanta India Ltd. | Dr. Vinita Jindal, BIRAC                         |
|              |           | New technologies for improving productivity of Indian Crop Varieties | With increasing pressure from a rapidly growing population and future impact of climate change, Indian agriculture industry needs infusion of new technologies. This session would discuss the frontiers of research and innovation such as MAS, GM and others and how India could benefit from adoption of these new technologies. | Dr. K. S. Charak, Adviser, DBT  
Prof. Deepak Pental, Ex-Vice Chancellor, DU  
Dr. Usha Zehr, Director, Mahyco Research Foundation  
Dr. Arvind Kapur, CEO, Rasi Seeds |
Panelists:
Mr. Chandrasekhar B Nair, Director & CEO, Bigtec Labs (Moderator)
Dr. Navin Khanna, Group Leader, ICGEB
Dr. Alka Sharma, Director, DBT
Dr. Om P. Manchanda, CEO, Dr. Lal Pathlabs
Dr. Nandakumar S., CEO, Perfint Healthcare
Dr. Avijit Bansal, SIB Fellow
Dr. Sidhant Jena, CEO, Janacare Solutions Pvt. Ltd.
Dr. Melissa Densmore, Researcher, Microsoft Research India

Rapporteurs:
Dr. Azmi Naqvi, BIRAC

Session IV
1630 – 1800 hrs

Treating patients affordably: Pathways to genomics driven personalized medicine in India

India’s population is large and is rich in ethnic diversity. With genomics gaining increasing traction, its influence on clinical decisions and therapy will grow. How would personalized medicine influence therapy of multitudes of health conditions from cancers to diabetes especially in India? How would Indian clinicians incorporate new patient specific data into therapy especially if new Indian population specific markers are found? What are the immediate and mid-term priorities for India in this area?

Panelists:
Dr. Vijay Chandru, Chairman & CEO, Strand Life Sciences (Moderator)
Dr. T. S. Rao, Adviser, DBT
Dr. Abraham Kuriakose, Mazumdar-Shaw Cancer Centre
Dr. Anand Anandkumar, Chairman & MD, Cellworks Research India Ltd.
Dr. Mallikarjun Sundaram, President & CEO, Mitra Biotech
Dr. Binay Panda, Head, Ganit Labs

Rapporteurs:
Dr. Suraksha S. Diwan, DBT-BIRAC

Indian agricultural ecosystems: Improving soil viability, fertility and productivity through new approaches such as biofertilizers and metagenomics

Improving fertility of the soil through an understanding of its microbial diversity (including metagenomics approaches), biofertilizers (including new nano-based approaches) and other methods have been a focus area. The session will focus on How can Indian agricultural ecosystems benefit from the new frontiers in these emerging areas?

It will also define the scope for discovery, translational biology, product innovation and challenges in achieving them on scale.

Panelists:
Dr. Alok Adholeya, Director, Biotechnology & Bioresources, TERI (Moderator)
Dr. Hemant J. Purohit, Chief Scientist, NEERI
Dr. Anand Gole, Lead Scientist, Tata Chemicals Innovation Centre
Dr. Yogesh S. Shouche, Scientist, NCCS
Dr. Murali Sastry, Director, DSM India Innovation Centre

Rapporteurs:
Dr. Prachi Agarwal, BIRAC
**BIRAC Grand Challenges Meet:**

Setting the future agenda

**21st – 22nd March, 2013**

*Venue:* Jacaranda Hall, India Habitat Centre, New Delhi

### Programme

**Day II: 22nd March, 2013**

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| 0930 – 1000 hrs | **Chair** – Dr. K. VijayRaghavan, Secretary, DBT and Chairman, BIRAC  
Plenary Lecture III – Prof. Anand Chakrabarty, Distinguished University Professor, University of Illinois, USA |
| 1000 – 1130 hrs | **Follow up on the Recommendations of Day I of Grand Challenges Meet:**  
**Presentation of summaries by Moderators**  
**Coordinator:**  
Dr. Ravi Dhar, Consultant, BIRAC |
| 1130 – 1200 hrs | Networking Tea |
| 1200 – 1300 hrs | **Working in consortia: Key Challenges, learning points from multi-stakeholder led projects**  
What are the key issues in consortia/partnership led projects? What can be learnt from successes & failures of India focused multi-stakeholder projects?  
**Moderator:**  
Dr. Satya Dash, Consultant, BIRAC  
**Panelists:**  
Dr. Balram Bhargava, Executive Director, Stanford India Biodesign  
Dr. Rajat Goyal, Country Director, IAVI  
Dr. Akhilesh Tyagi, Director, NIPGR  
Dr. Arvind Lali, Professor & Head, DBT-ICT Centre for Energy Biosciences  
Dr. Shirshendu Mukherjee, Senior Strategic Advisor, Wellcome Trust  
**Rapporteurs:**  
Dr. Banusri V., BIRAC  
Ms. Sibi Sagar, BIRAC |
| 1300 – 1330 hrs | Summing Up - Dr. Renu Swarup, Adviser, DBT & MD, BIRAC  
BIRAC’s Future Agenda – Dr. K. VijayRaghavan, Secretary, DBT and Chairman, BIRAC |
| 1330 hrs       | Meeting Concludes with Lunch |
