



DEAKIN UNIVERSITY

25  
YEARS OF  
ENGAGEMENT  
WITH INDIA  
1994 TO 2019

INTERNATIONAL CONSULTATIVE WORKSHOP

DISRUPTIVE TRANSLATIONAL RESEARCH IN NANO-BIOTECHNOLOGY:  
ADVANCING SUSTAINABLE FOOD SYSTEMS AND HUMAN HEALTH SOLUTIONS

**DATE**Wednesday, 13<sup>th</sup> March 2019**TIME**

1100 to 1730

Registration at 1030 (30 mins)

**VENUE**Juniper Hall, India Habitat  
Centre, New Delhi

Celebrating 25 years of engagement in India, Deakin University, Australia in association with The Energy and Resources Institute and Department of Biotechnology, Government of India is organizing an International workshop on “**Disruptive Translational Research in Nano-biotechnology: Advancing Sustainable Food Systems and Human Health Solutions**” scheduled to be held on 13th March at India Habitat Centre, Lodhi Road, New Delhi.

Rapid advancement over the past decade in the areas of agriculture, health, food and environment through basic and applied Nano biotechnological research interventions, and translational research of these emerging technologies, presents exciting possibilities for positive impact on the overall food system, the environment and for human health and disease prevention.

The major roadblocks to convert basic scientific discovery to translational research include:

- Understanding science of translation, leading to unpredictability and frequent failure of possible interventions
- Qualified investigators
- Organizational structures and incentives
- Designs of application potential and higher participation in feasibility studies
- Regulatory issues
- Funding required to convert basic science discoveries into translational research

Understanding the development of these technologies and their applications, as well as public acceptance and societal impact in the coming era will be critical in bringing nanoscience to market to provide better and more sustainable solutions.

Considering the importance of Translational Research during the last several years at national and international levels, Deakin University, Australia in association with TERI-Deakin Nanobiotechnology Centre, Gurugram and Department of Biotechnology, Govt of India is organizing this workshop which will focus upon the areas from pre-translational to translational application. Food, agriculture, environment, and healthcare professionals from industry, academia, government, research organizations and technology providers are invited to attend this workshop.

This one-day scientific workshop has the following objectives:

- (i) Highlighting new Nano-biotechnologies used in agriculture and the food supply chain, environmental science, and health and biomedical research
- (ii) Providing a platform to discuss and enhance multi-stakeholder partnerships in the advancement of new technologies and their applications

**For Registration Contact:**

[aloka@teri.res.in](mailto:aloka@teri.res.in) (Senior Director, TERI; Director, TERI-Deakin Nanobiotechnology Centre)

## WORKSHOP AGENDA

1030	<b>REGISTRATION</b>
1100 to 1205	<p><b>INAUGURAL SESSION</b></p> <p>1100 Welcome Address <b>Dr Ajay Mathur</b>, Director General, The Energy and Resources Institute (TERI)</p> <p>1105 Special Address <b>Mr John Stanhope AM</b>, Chancellor, Deakin University</p> <p>1115 Play Deakin and TDNBC Film <b>Film on Deakin's 25 Years Journey and TERI-Deakin Nanobiotechnology Centre</b></p> <p>1125 Guest of Honor Address <b>Shri Rakesh Kapur</b>, Joint Managing Director, Indian Farmers Fertilizers Cooperative Ltd</p> <p>1135 Key Remarks <b>Professor Jane den Hollander AO</b>, Vice-Chancellor &amp; President, Deakin University</p> <p>1145 Launch of DBT-TERI website of Ideation Centre on Nanobiotechnology <b>Dr Renu Swarup</b>, Secretary, Department of Biotechnology</p> <p>1150 Key Note Address <b>Dr Renu Swarup</b>, Secretary, Department of Biotechnology</p> <p>1200 Context of Conference on Translational Research &amp; Vote of Thanks <b>Dr Alok Adholeya</b>, Director, TERI-Deakin Nanobiotechnology Centre</p> <p>1205 Key Announcements and exchange of Agreements <ul style="list-style-type: none"> <li>▪ TERI- Odisha State Government for setting up industrial incubation center of TDNBC in the state</li> <li>▪ Launching Aurea systems Germany in India based on TERI technology</li> <li>▪ TERI-Osho industries USA and Indiana state for translational research collaboration for Rare earth bio extraction technology</li> </ul> </p>
1210 to 1310	<p><b>SESSION ONE</b></p> <p><b>Topic: Smart Nano systems and devices for Translational Research</b></p> <p><b>Session Note:</b> Advanced Nano systems and devices apply nanotechnology to highly specific interventions for various applications e.g. the prevention, diagnosis, and treatment of diseases, systemic bioavailability, etc. This panel discussion will address to tackle key issues related to the development of nanodevices and systems, including biological challenges, large-scale manufacturing, and overall cost-effectiveness in comparison with current therapies.</p> <p><b>Chair: Professor Harpal Singh*</b>, Indian Institute of Technology, Delhi</p> <p><b>Panellists:</b></p> <ul style="list-style-type: none"> <li>- <b>Shri Arvind Kumar*</b>, Senior Director, Ministry of Electronics &amp; Communications, Govt of India</li> <li>- <b>Dr Ambarish Ghosh</b>, Indian Institute of Science, Bangalore</li> <li>- <b>Professor G K Ananthasuresh*</b>, Indian Institute of Science, Bangalore</li> </ul>



- **Professor Shyamalava Mazumdar\***, Tata Institute of Fundamental Research, Mumbai
- **Professor David Halliwell**, Deakin University, Australia

1310 to 1345

**LUNCH BREAK**

1345 to 1445

**SESSION TWO****Topic: Nanomedicines: Towards Translational Research****Session Note:**

Since their introduction in the late 60's, nanotechnologies applied to medicine, called nanomedicines, are believed to have the potential to be mankind's first "giant step" toward treatment of severe diseases. This panel discussion will aim to tackle some of the key translational challenges that have to be taken into account when developing and evaluating new nanomedicines including biocompatibility and safety, intellectual property (IP) and government regulations.

**Chair: Professor Krishna N Ganesh\***, Director, Indian Institute of Science Education and Research, Tirupati

**Panellists:**

- **Professor Tapas K Kundu\***, CSIR- Central Drug Research Institute, Lucknow
- **Dr Shanti Kumar V Nair**, Amrita Vishwa Vidyapeetham, Kochi
- **Dr Gopal C Kundu**, National Centre for Cell Science, Pune
- **Dr Praveen Kumar Vemula**, Institute for Stem Cell Biology and Regenerative Medicine (inStem), Bangalore
- **Dr Amit Dinda**, The All India Institute of Medical Sciences, New Delhi
- **Associate Professor Xavier Conlan**, Deakin University, Australia

1445 to 1545

**SESSION THREE****Topic: Agriculture, Environment and Regulation: New Horizons for Translational Research****Session Note:**

Rapid advancement over the past decade in the areas of agriculture and environment through basic and applied Nano biotechnological research interventions, and translational research of these emerging technologies, presents exciting possibilities for positive impact on the overall food system and the environment. This panel discussion will aim to understand the development of these technologies and their applications, as well as public acceptance, societal impact and regulations in the coming era in bringing nanoscience to market to provide better and more sustainable solutions.

**Chair: Professor Y K Gupta\***, Professor & Head, Department of Pharmacology, The All India Institute of Medical Sciences, New Delhi

**Panelists**

- **Professor Dinesh Mohan**, Professor, Jawaharlal Nehru University, New Delhi
- **Dr Alok Adholeya**, Director, TERI-Deakin Nanobiotechnology Centre, Gurugram
- **Dr Anand Gole**, Coromandel Fertilizers Ltd, Hyderabad
- **Dr S Eswara Reddy\***, Drug Controller General of India, New Delhi
- **Prof Alokmay Datta\***, Saha Institute of Nuclear Physics
- **Mr Atul Chudiwal\***, CMD, Krishi Rasayan
- **Professor David Cahill**, Deakin University, Australia



1545 to 1600

**TEA/COFFE BREAK**

1600 to 1700

**SESSION FOUR****Topic: Advancing and escalating Translational Research by enabling collaborations****Session Note:**

The work of multidisciplinary research teams is an integral part of translational research. The field as a whole focuses not on the phenomena addressed by particular team science initiatives, but rather on understanding and enhancing the antecedent conditions, collaborative processes, and outcomes associated with team science initiatives. This panel discussion aims to examine the structure and function of multidisciplinary research teams to better understand, enable, and enhance their collaborative efforts to advance translational research.

**Chair: Dr. Alok Adholeya**, Director, TERI Deakin Nano-Biotechnology Centre

**Panelists:**

- **Professor Peter Hodgson**, Vice President, Industry Engagement, Innovation and Commercialisation, Deakin University
- **Professor David Halliwell**, Deakin University, Australia

1700 to 1730

**Valedictory Session**

Guest of Honor, **Dr S K Malhotra\***, Agriculture Commissioner of India

Valedictory Address by **Dr Suchita Ninawe**, Advisor, Department of Biotechnology

Closing Remarks by **Professor Julie Owens**, Deputy Vice Chancellor Research, Deakin University

\*Invited, awaiting confirmation