NIT Durgapur
Department of Biotechnology

organizing

An International Conference
On
Recent Advances in Molecular Plant Pathogen Interactions (RAMPPI)

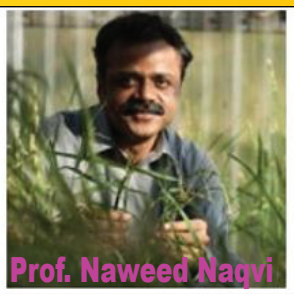
September 6 – 10, 2021

Conference Time:
6:00 PM – 9:00 PM

Last date of online Registration:
Aug 31, 2021

Invited Speakers:


Prof. Jonathan Jones


Prof. Naweed Naqvi

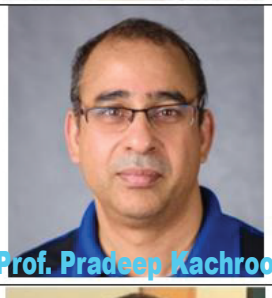

Prof. Ashis K. Nandi


Dr. Miriam Oses-Ruiz


Prof. Nick Talbot


Dr. Maganti S. Madhav


Prof. Mark Banfield


Prof. Pradeep Kachroo


Prof. Jin-Rong Xu


Prof. Mark Farman


Prof. Aardra Kachroo


Dr. Jessie Fernandez


Prof. Yulin Jia


Prof. Guo-Liang Wang


Dr. S. Roy-Barman

Patron: Prof. Anupam Basu, Director, NIT Durgapur, India
Chairperson: Dr. Debjani Dutta (Head of The Department)
Convener: Dr. Subhankar Roy-Barman
Contact: 9434789002; subhankar.roybarman@bt.nitdgp.ac.in

Link for online Registration:
https://docs.google.com/spreadsheets/d/1J80sK3XP8nZ0EszQtDTF9xSAcP8wSsvx3msmfkRC7DU/edit#gid=0

An International Conference (Virtual)
on
"Recent Advances in Molecular Plant - Pathogen Interactions"
(RAMPPI 2021)

Organised by
Department of Biotechnology
National Institute of Technology Durgapur
India

during Sept 6 - 10, 2021

Web platform: Microsoft Teams

Registration link:
https://docs.google.com/spreadsheets/d/1J80sK3XP8nZ0EszQtDTF9xSAcP8wSsvx3msmfkRC7DU/edit?usp=sharing

Patron: Prof. Anupam Basu, Director, NIT Durgapur
Chairperson: Dr. Debjani Dutta, Head, Department of Biotechnology
Convener: Dr. Subhankar Roy-Barman

Members of the Advisory Committee:

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Prof. Nirmal Baran Hui (Dean, Academic Courses)
Prof. Pathik Kumbhakar (Dean, Academic Research)
Prof. S. S. Thakur (Dean, Faculty Welfare)
Prof. Biswajit Halder (Dean, Students' Welfare)
Prof. K. C. Ghanta (Chairman, CEC)
Prof. Nicholas J. Talbot (UK)
Prof. Naweed Naqvi (Singapore)
Prof. Jin-Rong Xu (USA)
Prof. Ashis K. Nandi (India)
Prof. Yulin Jia (USA)
Prof. Sheshu Madhav (India)
Prof. Pradeep Kachroo (USA)
Prof. Jonathan Jones (UK)
Prof. Aardraa Kachroo (USA)
Prof. Mark Farman (USA)
Prof. Apurba Dey (India)
Prof. Sudip Chattopadhyay (India)
Prof. Sudit S. Mukhopadhyay (India)
Prof. Surabhi Chaudhuri (India)
Prof. Kaustav Aikat (India)
Prof. Dalia Dasgupta Mandal (India)

Members of the Organising Committee:

Dr. Sufia Kazy Khannam
Dr. Monidipa Ghosh
Dr. Ashish Bhattacharjee
Dr. Nibedita Mahata
Dr. Sougata Saha
Dr. Oindrilla Mukherjee
Dr. Debojyoti De
Dr. Sudipta Mondal
Dr. Amita Barik

Contact details of the Convener:

Dr. Subhankar Roy-Barman
Phone: 9434789002
Email: subhankar.roybarman@bt.nitdgp.ac.in

About NIT Durgapur:

The National Institute of Technology, Durgapur is located at the heart of steel city of Durgapur, one of the fastest growing tier-II city, in the state of West Bengal. The Institute is located about 160 KMs north-west of Kolkata on the Howrah-Delhi Main Railway-Route and overlooking the National Highway No. 2 (the great Grand- Trunk Road). The Institute spreads over an area of 187 acres of land. It is fully residential and co-educational institute. At present, altogether about 5,000 students have been pursuing their Bachelor's, Master's and Ph.D. programmes, NIT, Durgapur.

The institute embarked upon its tireless journey in 1960 as a joint venture between Govt. of India and Govt. of West Bengal in the name of Regional Engineering College. Eventually, the institute got transformed into National Institute of Technology under the Ministry of Human Resource Development, Govt. of India in 2004. Over the last few decades NIT, Durgapur has evolved significantly bringing under its umbrella additional facets of education such as Technology, Science and Research, which are complementary. The institute has acquired a status of 'Institute of National Importance" through implementation of NIT Act, 2007. The institute has been declared as one of the lead institutes under TEQIP programme of Ministry of Education, funded by the World Bank.

About the Department:

Department of Biotechnology at NIT Durgapur started its eventful journey in 2005 to cater to the biotechnological needs of the society. **B.Tech. and M.Tech. programmes in Biotechnology** started in 2005 and 2009, respectively. In 2020, this department has started with a brand-new programme of **M.Sc. in Life Sciences**. The department is steadily emerging as a leader in providing excellent education in both, undergraduate and postgraduate levels and to develop cutting-edge technology through research, training, scientific and technical innovations. The department is growing consistently since its inception and now has more than fifty research scholars working in various research projects. The laboratories of the department are equipped as per the needs of the UG, PG students and PhD scholars & faculty members.

Theme of the Conference:

Plants and microbes coexist or compete for survival in nature. Deciphering how plants respond to pathogenic infections or non-pathogen symbiosis and how microbes establish the symbiotic or pathogenic interactions with their hosts is not only a fundamental aspect of plant biology research but also important for crop improvement for the benefit of the mankind.

Plants are also sessile organisms and lack a circulating, somatically adaptive immune system to protect themselves against pathogens. They instead have evolved other mechanisms for defense against a spectrum of pathogens. Plants are, in fact, resistant to most microorganisms by means of constitutive chemical or physical barriers such as cuticular coats of wax armour that a potential pathogen must penetrate or bypass.

Disease is therefore the exception rather than the rule when microbes and plants meet. Yet yield loss due to plant disease remains an important component of modern agriculture, as many pathogens are evolutionarily specialized to overcome preformed defense barriers. Plant defense is based on recognition of specific pathogen molecules and subsequent induction of a broad defense response. Recognition process also evolves so that an individual plant can defend itself with the spectrum genes it inherited from its parents. Genetic diversity among individuals is therefore essential for survival of the host species against rapidly evolving pathogens.

A detailed understanding of pathogen recognition signaling of the defense response will contribute to engineering of disease resistance in crops. A variety of major and minor disease resistance genes have been identified across different crop species over the decades. These confer resistance to bacterial, viral, fungal, and nematode pathogens with very different extracellular and intracellular lifestyles. The scientific community have also been able to identify different disease resistance signalling pathways in various crop plants against a number of pathogens. Similarly, we have been able to figure out various modes of attack as have been adapted by the array of phytopathogens in the process of 'arms race'. In the post-genomic era even though we are flooded with huge amount of molecular information it always remains a challenge to gain specific knowledge about mechanisms of pathogenesis and host defense across any plant-pathosystem around the globe. Against all of our knowledge put together, the pathogens can at any moment take a heavy toll on production of essential crops due to not only their inherent genetic ability to evolve but also the changing climatic conditions.

However, the bottom line is we should be on our toes for complete understanding of mechanisms of pathogenesis and various aspects of host defense systems in order to ensure tomorrow's food security. It is highly relevant to wander about the unknown in the known areas, look for new sources of resistance, unravelling the new mechanisms of pathogen attack, novel signalling pathways for progressing our understanding of molecular plant pathogen interactions and exploring the newer possibilities of enhancing genetic resistance in the host plants. This conference intends to address some of these concerns.

Objectives:

This conference will enable participants to gain the knowledge about recent understandings on various mechanisms host defense systems, pathogenesis and molecular plant – pathogen interactions across different patho-systems, which will enable us to develop genetically resistant crop cultivars for the future generations. This conference aims to bring together leading academic scientists and researchers from across the globe to exchange and share their experiences and experimental on all aspects of Molecular Plant-Pathogen Interactions. It also provides a premier interdisciplinary platform for researchers, and educators to present and discuss the most recent innovations, trends, and concerns as well as practical challenges for the benefit of the society.

Resource Personnel:

Invited Speakers	Affiliations
Prof. Jonathan Jones	The Sainsbury Laboratory Norwich Research Park, Norwich, **UK**
Dr. Maganti Sheshu Madhav	Scientist, Indian Institute of Rice Research, Hyderabad, **India**
Prof. Aardraa Kachroo	Department of Plant Pathology, University of Kentucky, **USA**
Prof. Naweed Naqvi	Senior Scientist, Temasek Life Sciences Laboratory, **Singapore**
Prof. Mark Banfield	John Innes Centre, Norwich Research Park, Norwich, **UK**
Dr. Jessie Fernandez	University of Florida, **USA**
Prof. Ashis K. Nandi	School of Life Sciences, Jawharlal Nehru University, New Delhi, **India**
Prof. Pradeep Kachroo	Department of Plant Pathology, University of Kentucky, **USA**
Prof. Yulin Jia	Dale Bumpers National Research Center, USDA, **USA**
Dr. Miriam Oses-Ruiz	Laboratory of Prof. Nick Talbot The Sainsbury Laboratory Norwich Research Park, Norwich, **UK**
Prof. Jin-Ring Xu	Dept. of Botany and Plant Pathology, Purdue University, West Lafayette, **USA**
Prof. Guo-liang Wang	Department of Plant Pathology, Ohio State University, **USA**
Prof. Nick Talbot	The Sainsbury Laboratory Norwich Research Park, Norwich, **UK**
Ms. Atrayee Sarkar / Dr. Subhankar Roy-Barman	Laboratory of Dr. Subhankar Roy-Barman, Department of Biotechnology, National Institute of Technology Durgapur, **India**
Prof. Mark Farman	Department of Plant Pathology, University of Kentucky, **USA**

Course Content:

Dignitaries from renowned centres, institutes and universities from different parts of the world will deliver their talks in their respective areas of "molecular plant – pathogen interactions" using of various functional genomics tools.

Programme Schedule:

Programme Schedule of RAMPPI 2021 (*Duration of each talk is 30-35 min, followed by a discussion of maximum 10 min*)		
Date	**Time (IST)**	**Speaker**
Sept 6, 2021	**5:45 PM - 6:00 PM**	**Inauguration of the conference**
	6:00 PM – 6:45 PM	**Prof. Jonathan Jones**
	6:45 PM – 7:30 PM	**Dr. Maganti Sheshu Madhav**
	7:30 PM – 8:15 PM	**Prof. Aardraa Kachroo**
Sept 7, 2021	**6:00 PM – 6:45 PM**	**Dr. Naweed Naqvi**
	6:45 PM – 7:30 PM	**Prof. Mark Banfield**
	7:30 PM – 8:15 PM	**Dr. Jessie Fernandez**
Sept 8, 2021	**6:00 PM – 6:45 PM**	**Prof. Ashis K. Nandi**
	6:45 PM – 7:30 PM	**Prof. Pradeep Kachroo**
	7:30 PM – 8:15 PM	**Prof. Yulin Jia**
Sept 9, 2021	**6:00 PM – 6:45 PM**	**Dr. Miriam Oses-Ruiz**
	6:45 PM – 7:30 PM	**Prof. Jin-Ring Xu**
	7:30 PM – 8:15 PM	**Prof. Guo-liang Wang**
Sept 10, 2021	**6:00 PM – 6:45 PM**	**Prof. Nick Talbot**
	6:45 PM – 7:30 PM	**Atrayee Sarkar/ Dr. Subhankar Roy-Barman**
	7:30 PM – 8:15 PM	**Prof. Mark Farman**
	8:15 PM – 8:30 PM	**Valedictory session of the conference**

Who can participate in the conference:

Under Graduate, Post Graduate students, Ph.D. Scholars, Post-Doctoral Fellows, Research Scientists & Faculty members.

Registration fees: Nil

Last date of online registration: Aug 31, 2021

Selection of participants:

First 200 participants will be selected on a first come – first serve basis.

E-certificates will be delivered to each and every registered participant via their email IDs.

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