

AMITY UNIVERSITY MAHARASHTRA

Established vide Maharashtra Act No. 13 of 2014, of Government of Maharashtra, and recognized under section 2(f) of UGC Act 1956.

A

Report on



GOAL 2: Zero Hunger

Sustainable Development Goals

Year 2022

Amity University Maharashtra, Bhatan Post - Somathne,
Mumbai - Pune Expy, Panvel, Bhatan Pada,
Maharashtra 410206

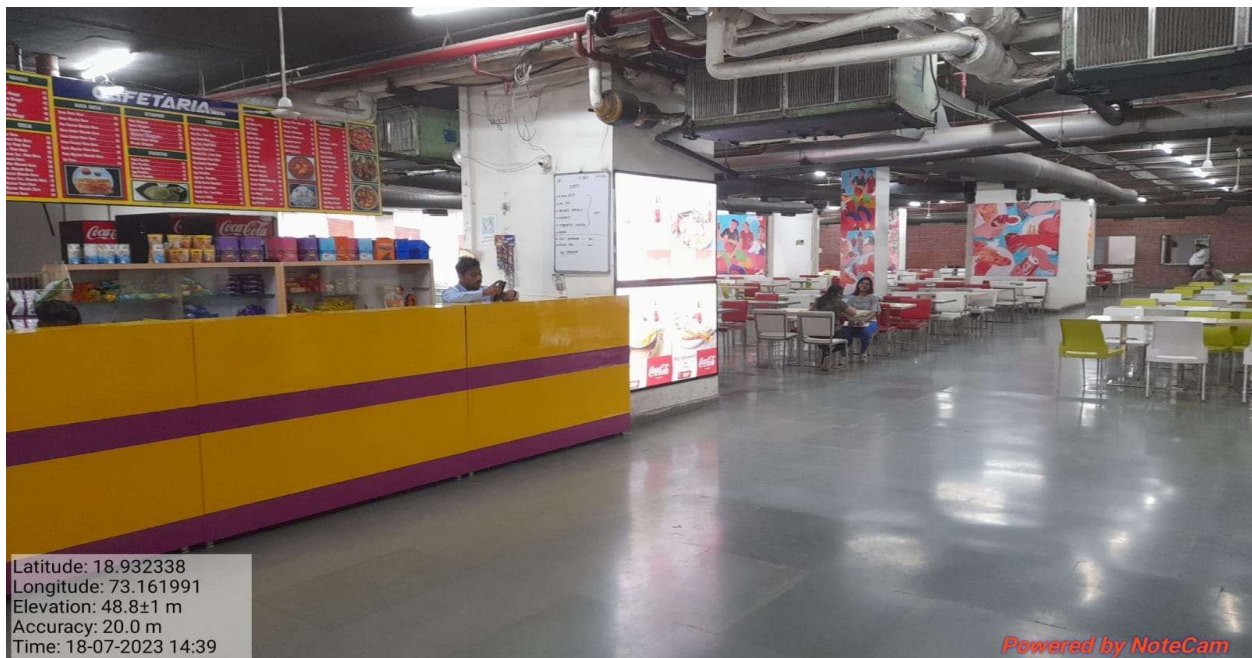
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GOAL 2: Zero Hunger

Initiatives by AUM

Canteen on Campus with Affordable Food Rates



Two days International Seminar on Biotechnological Interventions in Food Safety and Food-borne Infections

Outcome Report of “Two days International Seminar on Biotechnological Interventions in Food Safety and Food-borne Infections” Organized by Amity Centre for Drug Discovery and Development (ACDDD) Amity Institute of Biotechnology, Amity University, Mumbai

General Information:

Date of Event: 31st- 1st June 2022

Venue: Seminar Hall, Amity University, Mumbai

Organized by: Amity Centre for Drug Discovery and Development (ACDDD) and Amity Institute of Biotechnology

Total Participation: 100

- 1. Level of the Event** – International
- 2. Name of the Event** – International Seminar on Biotechnological Interventions in Food Safety and Food-borne Infections
- 3. Type of the Event** – Seminar
- 4. General Introduction** - The event is being organized to network with leading experts in the area of plant and food science from University of Arizona, USA. It is intended to explore possible areas of interdisciplinary and collaborative research activity for graduate, post graduate and PhD students as well as opportunities for our student to have the research in their labs under “Study Abroad Program”.
- 5. Objectives** – **The guest speakers talked about latest happenings in the field of Genetic engineering of plants and food safety.** The objective of this event was to enrich our student’s knowledge in these field explore, cultivate their research interest and experience possible areas of collaborative research work in the field of Plant biology and Food safety. The symposium is to promote our young minds to explore these areas for their future research.
- 6. Details of Envisaged Vs Achieved Outcomes and Actionable Progressive Outcomes**

Envisaged Outcome(s) - to explore possible areas of interdisciplinary research and collaborative research.

Is the outcome tangible or intangible? Tangible for “Study abroad program” opportunity.

Achieved Outcome – The symposium enriched our young minds to explore these areas for their future research. The students of B.Tech and M.Tech Courses interacted with the guest speakers to explore their opportunities to work in their labs in University of Arizona, USA

7. Scientific/ Technological/ Administrative strengths of the institution(s)/individual(s) who participated.

Speaker:

Dr. Ravishankar Palanivelu

Professor

University of Arizona, USA

Title of Talk: Biotechnology, GMOs, and Gene-Edited Crops: Essential components of Sustainable Agriculture in India

Dr. Ravishankar Palanivelu is professor at University of Arizona. He has completed his post doctorate from University of Chicago. He did his Ph.D from University of Georgia. He has published more than 86 publications receiving 2800 citations. He is selected to be one of the top 60 of most recognized and appreciated leaders and supporters in the fields of Science, Technology, Engineering, and Math in Southern Arizona. He is a member of the American Society of Biologists. His major interest is in understanding mechanistic details of cell –cell interaction, especially the pollen tube-pistil interactions in *Arabidopsis thaliana*. His lab is undertaking a multidisciplinary approach - Genetics, Cell Biology and Biochemistry - to understand this complex problem.

Speaker:

Dr. Sadhana Ravishankar

Chair & Professor, Applied Biosciences Graduate Interdisciplinary Program

University of Arizona, USA

Title of Talk: Current Trends in Biotechnological Interventions in Food Safety

Dr. Sadhana Ravishankar is a Professor in the School of Animal & Comparative Biomedical Sciences, University of Arizona, USA. She is also Joint Faculty Member in the Department of Nutritional Sciences. She Chair for UA Food Safety Consortium. Dr. Sadhana has done masters in Agricultural Extension from Tamilnadu Agricultural University. She has done her Ph.D in Food Science & Technology from University of Georgia, United States. Dr. Sadhana Ravishankar is awarded by many accolades, namely Inventor of the Year Award 2021, Lifetime Achievement Award, Indian Association of Applied Microbiologists (IAAM),2020, Elmer Marth Educator Award, Outstanding Faculty in Research in 2015 & 2011, Society National Association Publication (SNAP) Excel award-2008 etc. She has published around 61 Research publications. Her research interests is to contribute towards a significant reduction in illnesses by improving the safety of foods.

She is working on multiple projects, like control of foodborne pathogenic bacteria, natural antimicrobials and their applications in organic foods, bacterial attachment and biofilm formation in food production environments and stress tolerance responses of foodborne pathogenic bacteria.

Speaker:

Dr. Penna Suprasanna
Former-Head, Nuclear Agriculture and Biotechnology Division,
Bhabha Atomic Research Centre (BARC),
Trombay, Mumbai, India

Title of Talk: Improving food security: an appraisal of 'lab to farm' opportunities

Dr. Penna Suprasanna – M Sc (Genetics) and Ph D in Genetics from Osmania University (Hyderabad) - former-Head of Nuclear Agriculture and Biotechnology Division at Bhabha Atomic Research Centre, Mumbai & Professor, Homi Bhabha National Institute, Department of Atomic Energy, Mumbai, and Visiting Professor at other universities. Dr. Suprasanna made significant contributions to plant biotechnology, radiation technologies in agriculture, plant genomics and stress biology. He has also led research & development programs on ‘nuclear agriculture’, and has collaborated with agricultural institutions/universities and International Atomic Energy Agency (IAEA, Vienna). His work on plant bioregulators has provided know-how for better sucrose translocation, enhancement in crop yield and alleviation of multiple stress factors. He has greatly contributed to molecular understanding of abiotic stress (salinity, drought and arsenic) tolerance in crop plants [identification of redox-regulated microRNAs, nutrient homeostasis and hormonal and microRNA mediated signaling under arsenic stress] and in elucidating adaptive mechanisms to salinity in halophytes.

Dr. Suprasanna has served as the IAEA-Expert and as National Coordinator, IAEA-Regional Cooperation Agreement (RCA)-projects for Asia and South-East Asia. He is a member of the several national committees on biosafety, food Security. He is the recipient of the “Award of Scientific and Technical Excellence” by the Department of Atomic Energy (Government of India), Member, Royal Society of Biology (UK), and is the Fellow of International Society of Environmental Botany, AP Academy of Science, Maharashtra Academy of Sciences, and Association of Biotechnology & Pharmacy (AP). Dr. Suprasanna has to his credit 330 research publications and has guided several students for PhD. He is the Editor/Associate Editor of several national and international journals of repute and, is editing, ‘special issues’ & books on plant biodiversity, plant nutrition and climate resilience published by Springer and Elsevier.

- 8. Further possibilities of establishing linkages or collaborations with the Organization(s)/ Participants in the event (*e.g.: joint research projects/student internships and placements)**

The AIB students interacted with the speakers to explore their opportunities for “Study Abroad Program” in University of Arizona, USA

9. What was the Inspiration behind taking up this Particular Subject for the Event?

- To help the students and faculties understand the emerging trends of in GMOs, and Gene-Edited Crops for sustainable agriculture in India.

10. Who were the Distinguished Guest Speakers Invited for the Event. Kindly give their Names, Designations, Organisation, Qualifications, Area of Expertise and any Honours and Awards received by them.

- As per Para 7 above

11. What was the Criteria Considered for inviting the Various Individual Guests, Internal as well as External?

- **Dr. Ravishankar Palanivelu** is professor at University of Arizona. He has completed his post doctorate from University of Chicago. He did his Ph.D from University of Georgia. He has published more than 86 publications receiving 2800 citations. He is selected to be one of the top 60 of most recognized and appreciated leaders and supporters in the fields of Science, Technology, Engineering, and Math in Southern Arizona. He is a member of the American Society of Biologists. His major interest is in understanding mechanistic details of cell –cell interaction, especially the pollen tube-pistil interactions in Arabidopsis thaliana. His lab is undertaking a multidisciplinary approach - Genetics, Cell Biology and Biochemistry - to understand this complex problem.
- **Dr. Sadhana Ravishankar** is a Professor in the School of Animal & Comparative Biomedical Sciences, University of Arizona, USA. She is also Joint Faculty Member in the Department of Nutritional Sciences. She Chair for UA Food Safety Consortium. Dr. Sadhana has done masters in Agricultural Extension from Tamilnadu Agricultural University. She has done her Ph.D in Food Science & Technology from University of Georgia, United States. Dr. Sadhana Ravishankar is awarded by many accolades, namely Inventor of the Year Award 2021, Lifetime Achievement Award, Indian Association of Applied Microbiologists (IAAM),2020, Elmer Marth Educator Award, Outstanding Faculty in Research in 2015 & 2011, Society National Association Publication (SNAP) Excel award-2008 etc. She has published around 61 Research publications. Her research interests is to contribute towards a significant reduction in illnesses by improving the safety of foods. She is working on multiple projects, like control of foodborne pathogenic bacteria, natural antimicrobials and their applications in organic foods, bacterial attachment and biofilm formation in food production environments and stress tolerance responses of foodborne pathogenic bacteria.

- **Dr. Penna Suprasanna** M Sc (Genetics) and Ph D in Genetics from Osmania University (Hyderabad) - former-Head of Nuclear Agriculture and Biotechnology Division at Bhabha Atomic Research Centre, Mumbai & Professor, Homi Bhabha National Institute, Department of Atomic Energy, Mumbai, and Visiting Professor at other universities. Dr. Suprasanna made significant contributions to plant biotechnology, radiation technologies in agriculture, plant genomics and stress biology. He has also led research & development programs on ‘nuclear agriculture’, and has collaborated with agricultural institutions/universities and International Atomic Energy Agency (IAEA, Vienna). His work on plant bioregulators has provided know-how for better sucrose translocation, enhancement in crop yield and alleviation of multiple stress factors. He has greatly contributed to molecular understanding of abiotic stress (salinity, drought and arsenic) tolerance in crop plants [identification of redox-regulated microRNAs, nutrient homeostasis and hormonal and microRNA mediated signaling under arsenic stress] and in elucidating adaptive mechanisms to salinity in halophytes. Dr. Suprasanna has served as the IAEA-Expert and as National Coordinator, IAEA-Regional Cooperation Agreement (RCA)-projects for Asia and South-East Asia. He is a member of the several national committees on biosafety, food Security. He is the recipient of the “Award of Scientific and Technical Excellence” by the Department of Atomic Energy (Government of India), Member, Royal Society of Biology (UK), and is the Fellow of International Society of Environmental Botany, AP Academy of Science, Maharashtra Academy of Sciences, and Association of Biotechnology & Pharmacy (AP). Dr. Suprasanna has to his credit 330 research publications and has guided several students for PhD. He is the Editor/Associate Editor of several national and international journals of repute and, is editing, ‘special issues’ & books on plant biodiversity, plant nutrition and climate resilience published by Springer and Elsevier.

12. Who all attended the webinar ? Also, if possible, give the numbers.

- More than 100 attendees (offline mode) which included students and faculties from AIB, AUM

13. What were the ‘Take Homes’ for the Guests and the Attendees in the form of knowledge, facts, information etc.? Please give the Salient Novel Points Covered by the Guest Speakers, in Bullet Points Format.

- The guests had a very good audience in the form of faculties and students. The students received a good insight about the latest happening in food safety, GM crops and innovative approaches.
- The role of regulatory bodies in GM crops and food safety was discussed.
- The usage latest editing tool “CRISPR” technology gained much attention by the audience.

14. Has the Webinar been able to generate any Tangible gains for the Faculty, Researchers and Students of Amity. If yes, what are these?

The symposium enriched our young minds to explore these areas for their future research. The students of B.Tech, M.Sc and M.Tech Courses interacted with the guest speakers to explore their opportunities to work in their labs in University of Arizona, USA under “Study abroad Program”.

15. What are the ‘Progressive Outcomes /Way Forward’ planned, based on the event of the webinar. Please give them pointwise, with timelines and names of the persons responsible for their execution.

- We intend to encourage students to explore their opportunities to work under these researchers with “Study abroad Program”.

16. Have we Followed-Up with the Guests to consider Various Collaborations such as Joint Research Papers and Publications; Joint Funded Projects; Student Internships and Placements; Participation in National/ International Seminars/ Conferences,/Workshops ; Student/Faculty Exchange Programmes ; Post Doctorate tie ups ; etc. etc.

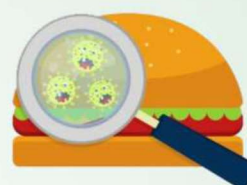
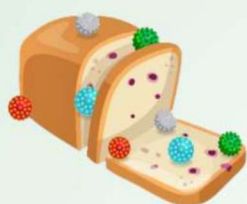
- Dr. Ravishankar Palanivelu and Dr. Sadhana Ravishankar discussed and interacted with our AIB students to explore their research interest. The students were provided with details to seek the opportunity to research in their labs at University of Arizona, USA

Event Flyer:

Organized by:
Amity Centre for Drug Discovery and Development (ACDDD)
Amity Institute of Biotechnology



Two days International Seminar on **BIOTECHNOLOGICAL INTERVENTIONS IN FOOD SAFETY AND FOOD-BORNE INFECTIONS**



Day-1: Tuesday, 31st May 2022 | 9:30 am - 11:30 am

Title of Talk:
Biotechnology, GMOs, and Gene-Edited
Crops: Essential components
of Sustainable Agriculture in India

SPEAKER



Dr. Ravishankar Palanivelu
Professor,
University of Arizona, USA

Title of Talk:
Current Trends in
Biotechnological
Interventions in Food Safety

SPEAKER



Dr. Sadhana Ravishankar
Chair & Professor,
Applied Biosciences Graduate
Interdisciplinary Program
University of Arizona, USA

**Day-2: Wednesday, 1st June 2022
09:30 am - 10:30 am**

Title of Talk:
Improving food security:
an appraisal of 'lab to farm'
opportunities

SPEAKER



Dr. Penna Suprasanna
Former-Head, Nuclear Agriculture and
Biotechnology Division, Bhabha Atomic
Research Centre (BARC),
Trombay, Mumbai, India



CHIEF PATRON

Dr. Aseem Chauhan,
President,
Amity University Mumbai



PATRON

Prof. (Dr.) A.W. Santhosh Kumar,
Hon'ble Vice Chancellor,
Amity University Mumbai

Convenor:
Dr. Sagar Barage,
Incharge & Associate Professor,
Amity Institute of Biotechnology.

Organizing Committee:
Dr. Rajshri Singh | Dr. Vinothkannan Ravichandran
Dr. Priti Jain | Dr. Sahshibala Singh



Welcome and felicitation of keynote speaker Dr. Ravishankar Palanivelu by Hon VC Prof. A.W. Santhosh Kumar.



Welcome and felicitation of guest speaker Dr. Sadhana Ravishankar by Hon VC Prof. A.W. Santhosh Kumar.



Interaction with delegates (Dr. Ravishankar and Dr. Sadhana) by Hon. VC sir, Dean Academics, Dean Student welfare and Registrar regarding collaborative research and opportunities to student for study abroad program.

