Prof. Dr. Y. R. Mulay
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T. C. College, Baramati.
Date: 29/05/2024

To,
The Principal
Tuljaram Chaturchand College, Baramati.

Subject: **Report of International Conference on "Biotechnology for a Better Tomorrow" at "Institute of Fundamental and Applied Research, Tashkent, Uzbekistan on 16th and 17th May 2024."**

Respected Sir,

I am pleased to submit a detailed report on my recent participation in International conference on "Biotechnology for a Better Tomorrow," which I had the honor of attending on behalf of Tuljaram Chaturchand College in Tashkent, Uzbekistan, on the 16th and 17th of May 2024. This Conference is organized jointly by Tuljaram Chaturchand College, Baramati, Microbiology Society of India, Institute of Fundamental and Applied Research, Tashkent, Uzbekistan, Amity University, Noida, American Microbiological Society in association with the Institute of Fundamental and Applied Research, Tashkent, Uzbekistan.

In the opening ceremony of this conference, Professor Salohidino, International Cooperation National Research University, Tashkent, Uzbekistan, shared his views on the importance of biotechnology in human welfare. It is followed by address of Vice Principal of Tuljaram Chaturchand College, Baramati Prof. Dr. Ashok Kalange gave information about various programs in Tuljaram Chaturchand College. I myself as Convener of conference showcases the importance of biotechnology in the future.food and agriculture sector. 70 researchers from Uzbekistan, Russia, Dubai, Kazakhstan, Turkey, Iran, Italy, Russia, Belarus and India participated in the conference.

The conference featured several keynote sessions and presentations by distinguished speakers, including:

Noted
31/05/24

Day I : 15th May 2024

Key Note Session:

Dr. Dilfuza Egamberdieva: Plant microbiome: benefits for sustainable agriculture (Uzbekistan)

Prof. Saverio Mannino: Nanotechnology in food systems. (Italy)

Presentation Session I: Agricultural biotechnology

1. Dr. Chandrakant Khilare: Exploring the potential of AMF on phytochemical profiling and health-promoting parameters of *Acmella calva* (DC.) R. K. Jansen (India)
2. Annamalai Panneerselvam: Edible mushroom cultivation technology and women's self help programme (India)
3. Farhod Eshboyev: Biological activities of the secondary metabolites of endophytic fungi isolated from *Hyssopus officinalis* (Uzbekistan)
4. Munawwar Ali Khan: Biochar combined with plant growth-promoting bacteria promotes tomato seedling growth under a reduced dose of synthetic fertilizer (India)

Presentation Session II: Medical and Pharmaceutical Microbiology

1. Dr. Anil Fokmare: Handling of temperature excursions and the role of stability data in pharmaceutical industries (India)
2. Subban Murugesan: Biogenic synthesis of CuO/ZnFe2O4 NCs using *Ulva lactuca* l. extract for photocatalytic degradation of congo red and in vitro biomedical applications (India)
3. Patil Madhuri Pravinkumar: A panoramic study in *Artemisia* pallets for its bioactive compounds and medicinal assets (India)
4. Muzaffar Muminov: "Immune profile of dimer rbd-based anti-coronavirus recombinant protein vaccine" (Uzbekistan).

Presentation Session III:Microbial Biotechnology

1. Dr. S B Dahikar: Biotechnological practices in producing biologically active compounds and innovative foods (India)
2. Dr. Gaurav Shah: Purification and characterization of microbial pigments: applications beyond belief (India)
3. Prof. Dr. Mulay Yogini Ramkrishna: Development of nano biocatalytic model by immobilization of amylase on silver nanoparticles & its application in detergent (India)
4. Murugaiyan Kalaiselvam: Marine microbiology: status, challenges and opportunities (India)
5. Arya Fokmare: Microbial load from birds Feces (India).

Day II: 17th May 2024

1. Prof. Natasa Poklar Ulrich: Micro- and nano-encapsulation of bioactive compounds for agrifood applications (Russia)
2. Prof. Alexei Lodygin: Implementation of functional food ingredients in fermented dairy products technology (Russia)
3. Prof. Vladimir Kurchenko: Chitosan and its derivatives regulate lactic acid synthesis during milk fermentation (Belarus)
4. Dr. Ludmila Alieva. Dr. Maria Shramko: Application of cationic polysaccharide chitosan in value-added dairy products (Online) (Russia)

Presentation Session IV: Modern trends in food and industrial biotechnology

1. Prof. Seid Mahdi Jafari: Adsorption of phenolic compounds from olive mill wastewater by surface-modified montmorillonite; a novel valorization strategy (Online) (Iran)
2. Mohammad Ali Shariati: Utilizing plant extraction to prolong the shelf life of animal-origin products (Online) (Kazakhstan)
3. Prof. Fahrettin Gogus: The valorization of valuable components from food waste by novel technologies (Online) (Turkiye)
4. Prof. Muhtor Nasyrov: Biotechnological methods for obtaining a new products of small ruminant farming in the drylands of Uzbekistan (Uzbekistan)
5. Dr. Andrei Nagdalian: Harnessing the power of metal oxide nanoparticles for pea seeds growth stimulation (Online) (Russia)
6. Dr. Natalia Oboturova: Modern trends and perspectives of food and industrial biotechnology developed at the faculty (Russia)

Presentation Session V: Environmental biotechnology

1. Dr. Tanu Jindal: Extremophiles and biotechnological application (Online) (India)
2. Dr Sarita Bhutada: Investigating anticancer potential: a comparison of synthetic and enzymatically derived gallic acid from *Aspergillus niger* (Online) (India)
3. Dr. Biswajit Rath: Microalgal biotechnology-hypes and hopes (Online) (India).

Conference ended with closing remarks of Dr. Dilfuza Egamberdieva, Head of Ecobiome R&D, National Research University (TIIAME), Uzbekistan and Dr. A. M. Deshmukh, President, Microbiologists Society, India

The "Biotechnology for a Better Tomorrow" conference was a highly enriching experience, offering valuable insights into the latest trends and innovations in biotechnology. brought together leading experts, researchers, and academicians in the field of biotechnology,

offering a platform for the exchange of innovative ideas and collaborative opportunities. The knowledge gained and the connections established will significantly benefit our institution's research initiatives. The conference facilitated numerous networking opportunities. I myself feel privileged with several researchers and industry representatives, discussing potential collaborations and exchanging insights.

I presented my research on **"Development of Nano-biocatalytic model by immobilization of amylase on silver nanoparticles & its application in detergent"** which explores a novel approach to enhancing the efficiency and stability of biocatalysts used in detergent formulations. The presentation was well-received, garnering significant interest and positive feedback from both the audience as well as panel of judges.

One of the key achievements of this conference was the signing of a **Memorandum of Understanding (MOU)** with two research institutes namely.

I) Institute of Fundamental and Applied Research University TIAME, Tashkent,

II) Uzbekistan and Faculty of Engineering and Biotechnology, University Russian Federation, Russia.

This MOU aims to promote collaborative research, faculty and student exchange programs, and joint academic activities between the two institutions and definitely our college will gain International attention.

I would like to express my gratitude to you and the College administration for giving me opportunity and supporting my participation in this prestigious event. I look forward to discussing the outcomes in more detail and planning the next steps to implement the MOU effectively.

Thank you for your continued support.

Yours Sincerely,

Prof. Dr. Y. R. Mulay
Vice Principal and IQAC Co-ordinator
Department of Microbiology