GARDEN CITY UNIVERSITY
EMPHASIS ON LIFE

GCU IQAC

BIORUJIVITH 2024

27th March 2024

International Conference on Millets:
Genomic and Biotechnological Approaches:
Impact on Health and Nutraceuticals

www.gardencity.university

CONTEXT

"In a world grappling with complex challenges in the domains of food security, nutrition and environmental sustainability, millets have emerged as a beacon of hope. Often overshadowed by more conventional crops, these diminutive grains harbor immense potential and offer a promising solution to some of our most urgent global issues.

International Year of Millets 2023, celebrated their nutritional richness, resilience and adaptability across diverse agroecological zones, have long nourished millions worldwide. Yet, their complete potential remains untapped. The fusion of biotechnological and genomic strategies has unveiled exciting new horizons for millets, positioning them as a fundamental force in confronting these challenges.

Biotechnology, with its precision in genetic manipulation, holds the key to elevating the nutritional profile of millets, fortifying them against pests and diseases, and empowering them to thrive in evolving climates. Genomics, on the other hand, delves into the genetic essence of millets, paving the way for customized varieties tailored to specific environments.

This introduction serves as a prologue to a deeper exploration of how biotechnological and genomic applications are reshaping the trajectory of millets. Our objective is clear: to attain superior production, enhanced nutrition, a healthier environment, and ultimately, a better quality of life for all. From heightened crop yields and improved nutritional quality to resilient agriculture and sustainable ecosystems, the potential rewards are vast.

In the following sections, we will immerse ourselves in the tangible applications and far-reaching implications of biotechnological and genomic innovations for millets, unearthing how they have the capacity to revolutionize the way we cultivate, consume, and reap the benefits of these unassuming grains."

THEME

Genomic Research and Advancements

- Genomic Insights into Millet Diversity
- Genome Sequencing and Annotation
- Genome Editing Techniques in Millets
- Biotechnological Advances in Millet Research
- Millet Research and Innovation Funding

Miscellaneous

- Ethnobotany and non-traditional millets
- Millets in traditional cuisine
- Marketing and Promotion of millets
- Food policy and Millets
- Other various field like Biochemistry, Biotechnology, Bioinformatics, Immunology, Enzymology, Microbiology, Forensics, Life Sciences and other Allied Health Science.

Biotechnological Applications and Innovations:

- Transgenic Approaches for Pest and Disease Resistance
- Nutritional Enhancement through Biotechnology
- Abiotic Stress Tolerance
- Millets as Nutritional Powerhouses (Related to biotechnological aspects)
- Food Innovation with Millets (Related to biotechnological applications)
- Challenges in Millet Value Addition (Related to biotechnological processes)

OBJECTIVE

The primary objective of the international conference is to bring together academicians, researchers, and scientists worldwide to deliberate on recent scientific advancements. Specifically, the focus will revolve around the intersection of biotechnological breakthroughs, genomic advancements, and other relevant disciplines shaping India's scientific landscape.

PARTICIPANTS

This gathering will feature sessions conducted by distinguished keynote speakers, alongside oral, poster, and technical sessions that delve into the various themes and sub-themes of these cutting-edge advancements.

The platform extends significant benefits to academicians, research scholars, and students, fostering an environment conducive to networking and contributing to the pursuit of sustainable goals. It offers an unparalleled opportunity for knowledge exchange and collaboration, enabling individuals to expand their professional networks.

Additionally, the conference provides a valuable platform for companies and institutions to showcase their products, services, innovations, and research outcomes. This avenue serves as a bridge, connecting the academic realm with practical industry applications, fostering a collaborative environment for the advancement of science and technology.

ABOUT GARDEN CITY UNIVERSITY

Garden City University, established under the Karnataka State Act 47 of 2013, is dedicated to supporting, promoting, and advancing innovation in University higher Education. This commitment extends to providing a wide spectrum of academic programs, including undergraduate, postgraduate, doctoral, and post-doctoral courses, across various fields, such as Technical, Health, Management, Life Sciences, Agriculture, Law, and related sectors. Additionally, the university actively encourages research, knowledge dissemination, and consulting services in these domains.

At its core, Garden City University envisions a comprehensive transformation in the current educational landscape in India. It aims to elevate and enhance every aspect of what a university represents. The university places significant emphasis on skill-based education, with the ultimate goal of ensuring that its graduates possess the necessary skills to be employable not just within the nation but on a global scale.

Garden City University operates as a learner-centric institution, giving its primary stakeholders—the students—the flexibility and responsibility to select the academic paths and choices that align with their individual aspirations and career goals. This approach empowers students to shape their educational journeys and maximize their potential.

ABOUT LIFE SCIENCE DEPARTMENT

The School of Sciences, housing the Department of Life Sciences, has been a foundational part of Garden City University since 1995. Its primary aim is to provide practical training while nurturing ethical values and self-motivation among its students. The department boasts a robust infrastructure that supports advanced scientific and technological research, making the School of Sciences a cornerstone of Garden City University.

Within the Department of Life Sciences, there are four postgraduate and three undergraduate courses, each supported by a dedicated and well-trained faculty. These courses cover a wide spectrum of subjects including Biochemistry, Biotechnology, Bioinformatics, Chemistry, Genetics, Forensic Science, and Microbiology.

The department has undertaken significant projects focusing on innovative research. For instance, it has completed a noteworthy project on "Nanomaterial for effluent treatment," which was supported by the VGST (Vision Group on Science and Technology), Government of Karnataka. Ongoing projects, such as the development of a portable pyrolysis machine to convert personal protective equipment (PPE) to liquid fuel, are funded by the Karnataka Government.

Further, the department has successfully completed three spice projects in nanotechnology, sponsored by VGST, KSCST, and KSTA, Government of Karnataka. The research outcomes from these projects have been published in highly reputable international journals, showcasing the department's commitment to academic excellence and innovation.

The Department of Life Sciences emphasizes a multidisciplinary approach to its curriculum, integrating co-curricular activities with academic studies. An example of this is the department's flagship event, "Biorujivith," which comprises a series of scientific activities, reinforcing the practical application of theoretical knowledge.

SUBMISSION OF ABSTRACTS AND BOOK CHAPTERS

Abstracts should be prepared not exceeding 350 words. Typed on A4 size paper with 2cm margins on all the sides. The abstract should include the elements described as below: Title of the paper, name(s) of author(s) with email ID, and affiliation.

Mail the abstracts and registration details to **biorujivith@gardencity.university**

Last date for submission of abstract is 15th March 2024. The abstracts selected for oral and poster presentations will be communicated by 19th March 2024. Selected papers will be published in the journal LIFESCIENCE EDGE (ISSN – 2249-2526). All presentations will be awarded certificates. First, second and third best presentations will be awarded.

Chapters submitted for edited book will be published in book titled:
GCU Biospectrum

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IMPORTANT DATES

Last date for submission of abstracts
15th March 2024

Last date for registration(presenters)
18th March 2024

Last date for registration(participants)
20th March 2024

*The abstracts selected for oral and poster presentations will be communicated by **19th March 2024.***

Venue:
GCU Auditorium, Garden City University Campus, Old Madras Road K.R Puram Bangalore.

Conference related enquiry
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Eastern R&D, Ariel University, Israel

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Principal Scientist, CSIR-NIIST, Thiruvanthapuram

LIST OF SPEAKERS

1. **Dr. Niranjana** (Vice Chairman, Karnataka State Higher Education Council Bengaluru)
2. **Dr. Mafatlal Khar** (Eastern R&D, Ariel University, Israel)
3. **Dr. S. Umesha** (Professor, Department of Biotechnology, University of Mysore, Mysore)