Director's Message

On behalf of the organizing committee, it is my great pleasure to welcome you to the *National Conference on Biotechnology (NCB-2025)*, themed *"Role of Biotechnology in Agriculture, Chemical, Physical, and Environmental Sciences for Sustainable Development"*. As we embark on this incredible journey of knowledge sharing, research innovation, and academic collaboration, this abstract book serves as a testament to the intellectual rigor, curiosity, and dedication of all participants and contributors.

Biotechnology is a powerful force, continuously shaping the future of agriculture, chemical, physical, and environmental sciences. Its capacity to unlock solutions to global challenges—such as food security, environmental sustainability, and climate change—is both revolutionary and essential. The remarkable array of abstracts contained in this book reflects the collective commitment to advancing these fields, creating a sustainable future, and fostering interdisciplinary dialogue that drives innovation.

In NCB-2025, we explore how biotechnology is interwoven with sustainable development goals, from optimizing agricultural productivity to reducing environmental footprints and enhancing chemical processes. By bringing together experts, researchers, and thought leaders from various domains, we create a platform for ground breaking discussions and collaborations that will shape the future of science and society.

I am excited for the fruitful exchange of ideas that will take place during this conference and hope that the insights shared here will pave the way for further advancements. Together, we stand at the forefront of transformative change, pushing the boundaries of what biotechnology can offer for a sustainable world.

I thank all contributors for their exceptional work and extend my warmest wishes for a successful and inspiring conference.

JITENDER KUMAR
Chairperson, NCB-2025

RAJESH KUMAR
Chairperson, NCB-2025

Coordinator cum Principal Message

It is with great pleasure that I welcome you to the *National Conference on Biotechnology (NCB-2025)*, themed *"Role of Biotechnology in Agriculture, Chemical, Physical, and Environmental Sciences for Sustainable Development."* This conference serves as a platform to explore the transformative potential of biotechnology in addressing some of the most critical challenges facing our world today.

The abstracts presented in this book reflect the dedication, innovation, and hard work of our researchers and practitioners who are advancing knowledge at the intersection of biotechnology and sustainability. Through interdisciplinary collaboration, we are not only enhancing agricultural practices, but also revolutionizing chemical processes, physical sciences, and environmental management for a more sustainable future.

As the Principal and Coordinator of this event, I am proud to see the enthusiasm and commitment of all involved in bringing this conference to life. The insights and discussions that will emerge from this gathering have the power to shape future policies, research directions, and industry practices. This book, therefore, is not just a compilation of academic work, but a symbol of our collective effort to make a meaningful impact on the path towards sustainable development.

I extend my heartfelt thanks to all the authors, researchers, and delegates who have contributed to the success of this conference. I look forward to the stimulating discussions and the innovative ideas that will emerge from this forum, and I am confident that this event will pave the way for new collaborations, advancements, and solutions in biotechnology and sustainability.

DR CHANDRA GURNANI
Principal & Coordinator, NCB-2025

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