

Summary/Report:

International Conference on the Role of Fungi in Sustainable Development (Oct 23–25, 2024, Pune).

This international conference was organized by the Department of Botany, Savitribai Phule Pune University, and PDEA's Prof. Ramkrishna More College, Pune. This international conference, supported by CSIR, New Delhi, brought together over 300 participants to explore the diverse roles of fungi in sustainable development. The event covered **13 key themes, viz.**, mycodiversity, fungal conservation, medical and industrial mycology, biotechnology, agriculture, nanotechnology, and energy.

Inaugurated by Prof. Suresh Gosavi, SPPU Vice Chancellor, with a keynote by Dr. Alok Srivastava, Director ICAR-NBAIM, Mau, Uttar Pradesh. Other dignitaries like Professor A.B. Nadaf, Head of the Botany Department, Dr. S.K. Singh, Senior Scientist & Member AFB Executive Council, were present. Dr. S.K. Deshmukh, President AFB, delivered presidential remarks. The conference featured over 20 expert talks by national and international speakers. The conference featured a rich lineup of distinguished speakers from India and abroad.

On October 23, 2024, Prof. Laurent Dufosse (University of Réunion Island, France) opened the technical sessions with his talk on *Filamentous Fungi in Microbial Pigment Production*. He was followed by Prof. C. Manoharachary (Osmania University), who presented on *Fungal Biology and Biotechnology: Aspects and Prospects*. Prof. T.S. Suryanarayana (VINSTORM, Chennai) shared insights on *fungal Endophytes*, and Prof. Surajit Das (NIT Rourkela) discussed the *Role of Mangrove Fungi in Plant-Growth Promotion and Biodegradation of Xenobiotic Compounds*.

On October 24, 2024, Prof. D.J. Bhat (Goa University) spoke on *Our Forests as Abodes of Rare and Interesting Fungi*, followed by Prof. Sanjai Saxena (Thapar Institute) on *Fungi as a Bioresource in Agriculture*. Dr. Rajesh Jeewon (University of Mauritius) gave a talk on *Fungal Biodiversity and its Applications in Human and Environmental Health*, and Prof. Samantha Karunaratna (Qujing Normal University, China) spoke on *The Remarkable Potential of Fungi*. Dr. Sumit Singh Dagar (Agharkar Research Institute, Pune) presented on *Anaerobic Fungi for Energy Production from Lignocellulosic Biomass*, while Dr. Nalin N. Wijayawardene (TMRF, Sri Lanka) discussed *Fungal Species Discovery and Nomenclature Practices*. Prof. T.N. Lakhanpal (HP University, Shimla) revisited the theme *Mushrooms Make All Healthy, Wealthy, and Wise*. Dr. Shilpa Verekar (Parle Agro Pvt. Ltd. Mumbai) explored *Marine Fungi as a Source for Future Cosmeceuticals*, and Dr. Rajesh Kumar K.C. (Agharkar Research Institute, Pune) provided insights on *Untangling the Taxonomy of Indian Ascomycota through a Polyphasic Approach*.

On October 25, Prof. R.G.U. Jayalal (Sabaragamuwa University, Sri Lanka) delivered a lecture on *New Trends in Lichenology*, followed by Dr. Ashish A. Prabhu (NIT

Warangal) who spoke on *Valorization of Water Hyacinth using *Meyerozyma guilliermondii*. Mr. Pranav R. Kshirsagar ((Agharkar Research Institute Pune) presented his work on *Enhanced Bio-methanation of Rice Straw by Anaerobic Fungus*. Dr. Samir R. Damare (CSIR-NIO Goa) highlighted the potential of *Marine Fungi as Bioremediation Agents*, while Dr. Koteswara Rao (CSIR-NCL Pune) discussed the neutralization of *Fumonisin B1* by *Lactococcus lactis* BIONCL 17752. The final invited speaker, Dr. P.N. Singh (Agharkar Research Institute Pune)), spoke on *Morphotaxonomic and Phylogenetic Studies on Cercosporoid Fungi in India and their Conservation*.

Prof. M.S. Patil and Prof. Kamal were presented **Lifetime Achievement Awards**. Similarly, fellowships of the AFB were awarded to selected researchers who have made significant contributions in the field of mycological research: Dr Rajeshkumar KC (FAFB2024001), Dr. Pradeep Verma (FAFB2024002), Dr. Paras Nath Singh (FAFB2024003), and Dr. Ram Prasad (FAFB2024004).

Numerous oral and poster sessions saw active participation, with several merit and special awards distributed. The Annual General Body meeting of the Association of Fungal Biologists was convened on 24th October 2025, where several important matters were discussed and other important recommendations of the executive council were ratified.

The conference concluded with a valedictory session on 25th October 2024 featuring a **presidential address by Pro Vice Chancellor, Savitribai Phule Pune University, Dr. Parag Kalkar**. **Dr. Mahesh Borde** (organizing secretary) presented the **conference report**, summarizing the key highlights and outcomes that featured **10 technical sessions** and **17 invited talks**, with **139 abstracts** submitted. Various awards were presented for outstanding research: the **Prof. M.S. Patil Merit Award** included 7 oral and 3 poster presentations; the **Prof. Kamal Merit Award** had 9 oral and 4 poster presentations; the **Prof. J.G. Vaidya Merit Award for Young Women** recognized 5 oral and 6 poster presentations; and the **Prof. P.S. Gharse Memorial Prize** honoured 10 poster presentations. In the general category, there were **35 oral** and **60 poster presentations**, highlighting the depth and diversity of fungal research showcased during the event. On this occasion, **Dr. Sangita Jagtap**, a Management Council Member of Savitribai Phule Pune University, also addressed the gathering, appreciating the collaborative efforts and emphasizing the importance of continued research in fungal science for sustainable development.

The conference ended on an uplifting note, highlighting the vital importance of fungi in maintaining ecological balance, driving innovation, and promoting sustainable solutions across various sectors. During the valedictory session, citations and mementos were awarded to all recipients of the different honours, as detailed below:

Sr No.	Category	Name and Abstracts/ affiliation
1	Professor MS Patil Merit Award for Young Researchers (Category-Oral Presentation)	<u>Malika Suthar</u> , NFCCI-Agharkar Research Institute, Pune <u>Title of the Presentation</u> : Harnessing Melanin Pigment from Selected Dematiaceous Fungi and Evaluation of their Bioactive potential <u>Sushant I Bornak</u> , Dept. of Botany, Rajaram College, Vidyanagar Kolhapur <u>Title of the Presentation</u> : Digital Database of Mushroom Diversity of Kolhapur District, Maharashtra
2	Professor MS Patil Merit Award for Young Researchers (Category-Poster Presentation)	<u>Riyaj R Inamdar</u> , Department of Botany, PG and Research Centre Chandmal Tarachand Bora College of Arts, Commerce and Science, Shirur <u>Title of Presentation</u> : Characterization of Endophytic Fungi Isolated from <i>Leucas longifolia</i> Benth. for Biosynthesis of Silver Nanoparticles
3	Professor Kamal Merit Award for Young Researchers (Category-Oral Presentation)	<u>Shiwali Rana</u> , NFCCI-Agharkar Research Institute, Pune <u>Title of the Presentation</u> : Novel Non-Pathogenic Endophytic Fusarium from Himachal Pradesh with Potential Industrial Applicability <u>Priyanka Shenoy</u> , SBRR Mahajan's First Grade College, Jayalakshmipuram, Mysuru, Karnataka <u>Title of the Presentation</u> : Genome mining, Antismash Analysis and Cloning of Secondary Metabolite Genes from Fungal Endophytes
4	Professor Kamal Merit Award for Young Researchers (Category-Poster Presentation)	<u>Vaishnavi Chavan</u> , Department of Botany, Ramkrishna More ACS College (Autonomous) Akurdi, Pune <u>Title of the Presentation</u> : Genome Sequence of Endophytic Fungi <i>Pseudopestalotiopsis theae</i> for study the Carbohydrate Metabolism and Bioactive Secondary Metabolites
5	Professor JG Vaidya Merit Award for Young Women Researchers (Category-Oral Presentation)	<u>Arunima Bose</u> , CNH, Botanical Survey of India, Howrah, Kolkatta <u>Title of the Presentation</u> : The family Cortinariaceae: Present Scenario and Indian Perspective
6	Professor JG Vaidya Merit Award for Young Women Researchers (Category-Poster Presentation)	<u>Shamal Thombre</u> , Department of Botany, Fergusson College, Pune <u>Title of the Presentation</u> : An Endophytic Fungus from <i>Mappia nimmoniana</i> Produces Anticancer Compound Camptothecin
7	Professor PS Gharse Memorial Prize (Category-Poster Presentation)	(I): <u>Anil S Nayakaa</u> P.G. Dept. of Studies in Botany, Karnatak University, Dharwad <u>Title of the Presentation</u> : Exploring <i>Trichoderma harzianum</i> akh-5: a novel fungal isolate for effective antimicrobial efficacy, phyto-pathogen management and environmental remediation

		<p>(II) Yogesh Urdukhe, Dept.of Botany, Jalna Education Society's R.G. Bagdia Arts, S.B. Lakhotia Commerce and R. Bezonji Science College, Jalna (MS)</p> <p><u>Title of the Presentation:</u> Unveiling the Virulence Arsenal: Cultural Characterization and Growth Kinetics of Rhizoctonia solani Isolates Associated with Damping-off and Bottom Rot in Broccoli</p>
8	Oral Presentation (Category-General)	<p>(I) MP Kirana, Biological Sciences Division, Poornaprajna Institute of Scientific Research, Sadashivnagar, Bengaluru</p> <p><u>Title of the Presentation:</u> Carbohydrate-digesting enzyme inhibition by an endophytic fungus isolated from a medicinal plant</p> <p>(II) PA Ansil, NFCCI-Agharkar Research Institute, Pune</p> <p><u>Title of the Presentation:</u> Interkingdom Interactions: Graphidaceous Lichen Symbiosis in the Western Ghats</p> <p>(III) Varada S. Damare, School of Earth, Ocean & Atmospheric Sciences, Goa University, Taleigao Plateau, Goa</p> <p><u>Title of the Presentation:</u> Biofilm formation by Thraustochytrids and their interaction with bacteria</p>
9	Poster Presentation (Category-General)	<p>(I) Pinaki Chattopadhyay, Molecular & Applied Mycology Lab, Dept. of Botany, Gauhati University, Guwahati, Assam</p> <p><u>Title of the Presentation:</u> Morpho-Molecular Taxonomic Studies on the Genus <i>Agaricus</i> from Lower Brahmaputra Valley of Assam, India</p> <p>(II) Shahaji Palaskar, Biochemical Science Division, NCL, Pune</p> <p><u>Title of the Presentation:</u> Marine-Fungi Derived Bioactive Molecules to Combat Drug-Resistant Clinical Pathogens</p> <p>(III) Chandni Sachdeva, Department of Public Health Genomics, Manipal School of Life Sciences, Manipal Academy of Higher Education, Manipal, Karnataka</p> <p><u>Title of the Presentation:</u> Adaptive Antibiotic Evolution in <i>Candida tropicalis</i></p>
10	Special award from the organizer	<p>Preeti Phate, Department of Botany, J. S. M. College, Alibag, Raigad</p> <p><u>Title of the Presentation:</u> Myxomycetes Research in India: Past, Present, and Future opportunities</p>