BioSpectrum the business of Bio & Health Sciences

Herbalife India collaborates with IIT Madras to launch plant cell fermentation technology lab

10 February 2025 | News

To bridge the demand-supply gap in plant-based nutraceuticals, phytoceuticals, and phytopharmaceuticals

Herbalife, a premier health and wellness company, community and platform, has signed an agreement with the Indian Institute of Technology (IIT) Madras to establish the Herbalife-IITM Plant Cell Fermentation Technology Lab at the campus under Herbalife's CSR initiative.

The agreement signing ceremony took place at IIT Madras in the presence of Ajay Khanna, Managing Director, Herbalife India, and Prof. Ashwin Mahalingam, Dean - Alumni & Corporate Relations, IIT Madras and other IIT-M representing members.

This partnership aligns with the Indian government's Bio-E3 policy, aimed at establishing India as a global hub for bio-manufacturing and advancing Prime Minister's vision of *Atmanirbhar Bharat*. The lab will serve as a catalyst for innovation, capacity building, and industry collaboration in the wellness sector while also fostering entrepreneurship.

The Centre of Excellence – Herbalife Plant Cell Fermentation Technology Lab, is focused on pioneering sustainable solutions for high-quality herbal raw materials and phytochemicals. The facility will be a centre to produce sustainable herbal raw materials using plant cell fermentation technology, ensuring high-quality phytochemicals and drive innovation in nutraceuticals, cosmeceuticals, and Ayush formulations, contributing directly to the UN Sustainable Development Goals (SDG3 - Good Health & Well-Being).

The collaborative effort will leverage plant cell technology to enable vitro cultivation of medicinal plants under controlled conditions, ensuring year-round availability, purity, and bioactive consistency. In addition to this, Advanced bioreactor-based scaling will facilitate large-volume production in minimal space, overcoming land constraints and long harvesting cycles associated with traditional farming and the green extraction technologies will drive sustainability in bioactive compound production.

The Plant Cell Fermentation Technology Lab predominantly has 5 key focus areas, Innovative Research to handle R&D, translational research, and blue-sky projects; Sustainable Biomanufacturing to handle the scalable plant cell fermentation for herbal extracts; Technology-Driven Solutions in the silico screening for phytochemical discovery and repurposing; Conservation Efforts in the production of somatic embryos and plant materials for field cultivation of endangered medicinal species; and Ecosystem Engagement to support hackathons as well as accelerator programs to drive innovation.