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Odisha launches ground-breaking Marine Biotechnology Initiative OMBRIC

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OMBRIC is designed to translate research into tangible economic outcomes



Chief Minister of Odisha Mohan Charan Majhi has launched the Odisha Marine Biotechnology Research & Innovation Corridor or OMBRIC.

Recognising the immense potential of the 574 km long coastline packed with unexplored rich marine bioresources, the Science & Technology Department, Government of Odisha, has conceptualised and initiated the Odisha Marine Biotechnology Research & Innovation Corridor (OMBRIC), a pioneering initiative aimed at transforming and positioning Odisha into a global leader in marine biotechnology and Blue Economy development in future.

With a budget of Rs 50 crore over five years, this initiative reflects the Government of Odisha's unwavering belief in the power of science to shape a sustainable future.

To ensure targeted and high-impact execution, six premier institutions in Odisha have been selected as hubs of OMBRIC based on their scientific expertise and regional relevance.

These institutions will lead various components of OMBRIC with specific objectives aligned with their areas of expertise and need of the state:

1. IIT Bhubaneswar – **Comprehensive mapping and monitoring of Odisha's coastal marine bioresources** using satellite images, GIS, remote sensing, drone survey etc. and **assessment of coastal ecosystem health** and capacity building.
2. NIT Rourkela – Cultivation of **unculturable marine microorganisms** and extraction of **novel bioactive compounds (Enzymes, Pigments, Antibiotics etc.)** with **pharmaceutical and industrial applications**.
3. IISER Berhampur – **Novel Gene discovery**, characterisation and structural elucidation of marine bioactive compounds and **upscaling of high valued marine products through chemical engineering**.
4. ILS Bhubaneswar – Establishment of a **Marine Microbial Biorepository**, to publish **Odisha Marine Bio Resource Atlas with Genetic Footprint** and to promote innovation, start-up activities in blue technology.
5. Berhampur University – Marine biodiversity mapping and metabolite characterisation of **Marine algae, seaweeds, fishes** and other sea animals.
6. Fakir Mohan University – Commercial breeding technology and scalable protocol for breeding of **Indian horseshoe crabs** and translational applications of extracted bioactive compounds.

Crucially, OMBRIC is designed to translate research into tangible economic outcomes. Through IP generation, incubation support, and entrepreneurial mentoring, research findings will evolve into market-ready products, fostering the growth of marine biotech startups and enterprises. This "lab-to-market" pipeline ensures a sustainable ecosystem for innovation-driven marine industrialisation in Odisha.

In addition to advancing research, OMBRIC places strong emphasis on community engagement and social impact. The initiative seeks to involve coastal populations through training, education, and participatory conservation, thereby fostering marine stewardship while improving local livelihoods and social equity.

Further, a Memorandum of Understanding (MoU) has been signed between the Department of Science and Technology, and Indian Institute of Management (IIM), Sambalpur in the presence of Krushna Chandra Patra, Minister of Science and Technology, Food Supply and Consumer Welfare, Odisha and Chithra Arumugam, Principal Secretary, Science & Technology Department. The MoU was signed by Puja Mishra, Addl. Secretary Cum Director Biotechnology and Prof. Mahadeo Jaiswal, Director, IIM-Sambalpur.