

## **Biotechnology Industry and BioEntrepreneurship Development - An Emerging Opportunity for Bhubaneswar, Odisha**

Biotechnology is a global industry. Biotech industries in Odisha, is at a very early stage of development. There are various biotechnology oriented educational, academic, research and governmental activities happening in Bhubaneswar and other parts of Odisha, where biotechnology human resources (students, faculties and research scientists, bioengineers) are getting developed. However, biotech R&D innovations and inventions, academia-industry technology transfer leading to licensing and new product development and bioentrepreneurship development are major gap areas in Odisha.

Odisha State is blessed with natural and biological resources, however commercialization and productization of locally available bio-resources through applied biotechnologies have been challenging. Biotech-Investors and Bio-Entrepreneurs in Odisha may target healthcare (human/veterinary), agriculture (seeds and crops, medicinal plants/herbals/foods/nutrition), BT-IT interfaces (bioinformatics/medical & clinical informatics), bio-energy and environment/green industry and biotech services sectors.

Invest Bhubaneswar , a brand new organization, recently created by a group of local entrepreneurial, NROs, ROs and supported by the Odisha Government and other public/private parties have broad-based interests in promoting technology entrepreneurship and new ventures, including biotechnologies in Odisha.

The proposed Konark Knowledge Park Pvt. Ltd. (Andharua, near Bhubaneswar) is under a PPP-based lease development partnership between the Odisha state Government and Hyderabad based Bharat Biotech International Limited. The park is a Special Purpose Vehicle (SPV) for development of an integrated bio-industrial park (65+ acres) to attract, incubate and promote biotechnology, pharmaceutical, information technology and knowledge based industries in Bhubaneswar. The Department of Biotechnology (DBT), Government of India is already funding for the establishment of a Biotech Incubation Center (BIC), a non-profit society, inside the Bio-Park to facilitate R&D/Technology-based bioentrepreneurships. Also, a second larger bio-park (Phase 2, 200+ acres) is proposed to be built near Bhubaneswar, if investors and entrepreneurs and companies may like to set up their bio-shops.

KIIT Technology Business Incubator (KIIT-TBI) is a recent initiative of KIIT University (Bhubaneswar) supported by National Science & Technology Entrepreneurship Development Board (NSTEDB), Department of Science & Technology (DST), Government of India. KIIT-TBI has been set up to attract investors and to nurture technology entrepreneurs to enable them to establish startup, new ventures and small business enterprises in Odisha.

Now, Bhubaneswar can offer early infrastructural biotechnology industrial facilities (R&D centers, laboratories, bio-incubators, manufacturing units, services) and human resources in support of biotechnology industry development in the State of Odisha.

Biotech Investment, BioEntrepreneurship, BioVentures and BioIndustry Development are emerging opportunities for Odisha. Biotech in Odisha needs the congruence of five key areas - people, ideas, investments, marketable business plans and R&D Technology-based Commercializable products.

Biotechnology and bio-based industry development in Odisha can contribute to the human healthcare/biopharmaceuticals, plant/agriculture, food/nutrition, animal health/vet biotech, bio-energy/bio-fuel/bio-diesel, bio-materials, herbals/medicinal plants, environment/green technology, BT-IT interfaces, consumer bio-products, bio-services and PPP sectors.

Thanks

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**About the author:** Dr. Amiya Nayak (PhD, MBA) is a generalist, biotechnology management consultant, advisor and entrepreneur involved in bio-business development, intrapreneurship, entrepreneurship, new ventures and private-public-partnership activities. Amiya has been interested in helping in building the biotech industry base in Odisha, and advising global companies, Indian companies, Odisha Government Biotechnology Unit, private biotech firms, Bhubaneswar-based institutions/incubators, prospective investors/entrepreneurs and networking for business and developments in Odisha, India.