



Biotechnology Industry Research Assistance Council
(A Govt. of India Enterprise)



# **Transforming Lives**

**Biosciences to Bioeconomy** 

1-3 March 2021 Digital Platform

CATALOGUE







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The Global Bio-India 2021 will discuss how India's campaign 'Make in India' has translated into "Atmanirbhar Bharat Abhiyaan" to provide resilience and self-sufficiency" to the country. The session will highlight National Priorities, examples from India's experience in turning Covid pandemic challenges into opportunities for developing domestic innovation ecosystem gaining self-sufficiency in requirements e.g., Vaccine, Drugs, Diagnostics, Personal protective equipment (PPE) kits, ventilators, thermal scanners, Masks etc.

The transition from the National Biotechnology Development Strategy (NBDS) 2015-20 to NBDS 2021-25 comes when India is aiming to become a USD 5 trillion economy; making for India and the world, ensuring ease of living for the citizens, skilling its youth to become entrepreneurs and job-creators and ensuring equitable and sustainable development. Department of Biotechnology remains committed to providing a special impetus to new knowledge generation and discovery, launching major strategically driven and directed missions, empowering the country's human resource scientifically and creating a strong ecosystem for research, development, translation and commercialization to create a robust bio-economy. The era of biotechnology-driven, socially relevant innovation and technology development becomes evident during COVID-19 outbreak. It will be the key driver of the NBDS 2020-25. We will get to know more as the Strategy document will be released during this session.



**Transforming Lives**Biosciences to Bioeconomy

**ORGANIZERS** 



The Department of Biotechnology (DBT) is an Indian government Department set up in 1986 under the Ministry of Science and Technology facilitating research, capacity-building, technology and enterprise development in the field of biotechnology in the country. The DBT has 16 autonomous institutes all over the country working on R&D in frontier areas and two public sector undertakings promoting bio-entrepreneurship and commercialisation of technologies. In attaining its mission, the DBT actively collaborates with more than 20 countries globally and has enabled efforts of more than 15000 Indian scientists resulting in about 6000 key publications and IP; over 250 technologies.

Biotech services Covid-19	Ongoing Projects	Projects Sanctioned	International Collaborative Projects	Scientists Supported
2,511,389	2,004	4,122	69	31,422
Research Personnel	CTEP-Proposals	Technology	Publications	Patents Granted
Research Crasminer	Sanctioned	Generated	rubications	ratents Granted
36,750	2,106	619	16,770	798



# Biotechnology Industry Research Assistance Council (A Govt. of India Enterprise)

BIRAC is a Section 8 "Not-for-profit Company" set up by Department of Biotechnology, under Ministry of Science & Technology, Government of India, as an interface agency to promote Industry-Academia interface. Mandate of BIRAC is to nurture and empower the Biotech Innovation Ecosystem in India. To serve various dimensions, BIRAC operates mainly in 3 verticals i.e. Investment schemes, Entrepreneurship Development & Strategic Partnerships. BIRAC works closely with all partners - National and International to leverage the strength and expertise, mobilize resources and extend the outreach of its activities for innovative affordable product development addressing the unmet need.





# **Confederation of Indian Industry**

The Confederation of Indian Industry (CII) works to create and sustain an environment conducive to the development of India, partnering industry, Government and civil society, through advisory and consultative processes.

For 125 years, CII has been working on shaping India's development journey and, this year, more than ever before, it will continue to proactively transform Indian industry's engagement in national development.

CII is a non-government, not-for-profit, industry-led and industry-managed organization, with about 9100 members from the private as well as public sectors, including SMEs and MNCs, and an indirect membership of over 300,000 enterprises from 288 national and regional sectoral industry bodies.

CII charts change by working closely with Government on policy issues, interfacing with thought leaders, and enhancing efficiency, competitiveness and business opportunities for industry through a range of specialized services and strategic global linkages. It also provides a platform for consensus-building and networking on key issues.

Extending its agenda beyond business, CII assists industry to identify and execute corporate citizenship programmes. Partnerships with civil society organizations carry forward corporate initiatives for integrated and inclusive development across diverse domains including affirmative action, livelihoods, diversity management, skill development, empowerment of women, and sustainable development, to name a few.

With the Theme for 2020-21 as Building India for a New World: Lives, Livelihood, Growth, CII will work with Government and industry to bring back growth to the economy and mitigate the enormous human cost of the pandemic by protecting jobs and livelihoods.

With 68 offices, including 10 Centres of Excellence, in India, and 8 overseas offices in Australia, Egypt, Germany, Indonesia, Singapore, UAE, UK, and USA, as well as institutional partnerships with 394 counterpart organizations in 133 countries, CII serves as a reference point for Indian industry and the international business community.

# **Confederation of Indian Industry**

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ABLE-Association of Biotechnology Led Enterprises is a not-for-profit pan-India forum that represents the Indian Biotechnology Sector. It was launched in April 2003, after industry leaders felt a need to form an exclusive forum to represent the Indian Biotechnology Sector. ABLE is a founding member of the International Council of Biotechnology Association (ICBA).

ABLE has approx. 250 members representing all verticals of the sector like agribiotech, biopharma, industrial biotech, bioinformatics, investment banks, Venture Capital firms, leading research and academic institutes, law firms, equipment suppliers and students.

The primary focus of ABLE is to help accelerate the growth of the Biotechnology sector in India to attain 100 billion USD by 2025, through partnering with the Central and State Governments in their biotechnology initiatives to deliver optimal policies and create a positive regulatory environment, encouraging entrepreneurship and investment, providing a platform for domestic and overseas companies to explore collaboration and partnerships, forging stronger links between academia and industry and by showcasing the strengths of the Indian biotech sector.

ABLE thus catalyses a symbiotic interface between the industry, the government, academic and research institutes and domestic and international investors.

ABLE's objective is to work in consensus with all stake-holders, towards ensuring an effective, enabling and supportive environment for the Indian biotechnology sector to substantially contribute to India's economic and social growth by providing access to affordable healthcare, food and clean and sustainable energy.

ABLE uses a multi-pronged strategy to deliver its objectives that includes Advocacy, Promoting entrepreneurship, industry-Academia linkages, International outreach through showcasing Indian public and private biotech sectors and Organizations at International fora, among others.



Invest India is the National Investment Promotion and Facilitation Agency of India and act as the first point of reference for investors in India.

As the national investment promotion and facilitation agency, Invest India focuses on sector-specific investor targeting and development of new partnerships to enable sustainable investments in India. In addition to a core team that focuses on sustainable investments, Invest India also partners with substantial investment promotion agencies and multilateral organizations. Invest India also actively works with several Indian states to build capacity as well as bring in global best practices in investment targeting, promotion and facilitation areas.

Invest India, set up in 2009, is a non-profit venture under the Department for Promotion of Industry and Internal Trade, Ministry of Commerce and Industry, Government of India.

Our Service Offerings:

**Business Planning & Advisory** 

- Policy and incentives advisory
- Market expansion strategy
- Expansion advisory

Long-term Partnership

- Expansion advisory
- Policy impact analysis
- Facilitation

Strategy & Implementation

- Market entry strategy
- JV and strategic partner search
- License and compliance advisory



**Transforming Lives** 

**Biosciences to Bioeconomy** 

**COUNTRY PARTNERS** 



# **Embassy of the Kingdom of the Netherlands**

Embassy of the Kingdom of the Netherlands in New Delhi is an office of the Dutch Ministry of Foreign Affairs. The team at the Embassy consists of colleagues from Political, Economic, Agriculture, Netherlands Innovation Network, Netherlands Foreign Investment Agency and Consular Office.

### The Netherlands Innovation Network - India

Are you interested in international developments in the field of science, technology and innovation and looking for contacts in India? The Netherlands Innovation Network helps identify opportunities for partnerships in Innovation and R&D. The Netherlands Innovation Network stimulates international cooperation for companies, research institutes and public authorities in the fields of innovation, technology and science. The network's activities support the implementation of government of the Netherlands' international knowledge and innovation agenda.

India is an important bilateral partner for the Netherlands when it comes to science, technology and innovation. The focus of the Netherlands Innovation Network in India is on partnerships that help solve shared societal challenges in Water, Agriculture and Health and the Key Enabling Technologies (a.o. Al, Big Data, Cyber Security, Space). The network in India works closely together with the government at both central and state level, leading research institutes in the country and companies, including start-ups, which are at the forefront of technology and innovation in the country.

The Innovation departments of the Embassy in New Delhi and the Consulates in Bangalore and Mumbai are ready to help you with information, advice, contacts, and opportunities for partnerships. We look forward to helping you with your ambitions for India.

You can also contact us with specific questions at: nde-ia@minbuza.nl.

Follow the Netherland Innovation Network in India

LinkedIn Netherlands Innovation Network India

Twitter @ianetworkIndia



The Swiss Business Hub India is a representative of the Swiss federal government's official trade and investment promotion agency, Switzerland Global Enterprise (S-GE). One of its key mandates is to support Indian companies with greenfield investment in Switzerland.

The SBHI acts as the first point of contact for Indian companies that seek to establish a presence in Switzerland and works closely with the various economic development offices of the Cantons/Regions of Switzerland. The Hub enables crucial contacts with partners such as industry associations, chambers of commerce, research institutes, innovation parks, etc ensuring smooth transition in the European market.



**Transforming Lives**Biosciences to Bioeconomy

**STATE PARTNERS** 



Karnataka was the first state in India to announce a Biotechnology Policy to focus on developing the Biotechnology sector in the state. The first policy popularly known as, Millennium Biotech Policy – I, was announced in 2001. The second biotech policy termed as, Millennium Biotech Policy II, was launched in 2009 to build on the momentum achieved through the 2001 policy. The third policy was announced in 2017.

These Biotechnology Policy Frameworks helped the state to become one of the leading Biotech destinations in the country. Below are some of the milestones that Karnataka achieved as per the directions under the three Biotech policies:

- Finishing Schools: Establishment of Biotechnology finishing schools across the state to increase the employment, fill the skill gap that the industry had, and also create industry-ready human resource.
- Ecosystem: Enabled creation of a supportive environment. It created an enabling ecosystem for start-ups, facilitated infrastructure building, and building network platforms for the industry.
- Industry-Academia collaboration: The policy framework helped the industry and academia to come together and develop opportunities in a holistic way.
- Premier institutes and centers of excellence: The state through proactive policy initiatives set up premier research institutes and centers of excellence.
- Incubators, accelerators, mentoring: The state has several state-of-art incubators.
  There are nearly 10 incubators that have been supported by the state government.
  Some of them provide infrastructural and specialized facilities, some are also accelerators facilitating techno-commercial aspects besides mentoring and proof-of-concept funding support. Karnataka has witnessed collaborative intra-incubator relationships as well.
- Start-up facilitation: Any start-up ecosystem has three key characteristics. Access to Capital, Access to Know-how, and an entrepreneurial mindset. Karnataka, through programs like Elevate Idea2PoC Grant, Grand Challenges, K-SAP Bio 50 and Bio Venture Fund, has managed to attract start-ups in a big way. The state government has provided financial support to a tune of Rs 150+ crores. This comes in both Grant and Equity formats. Such support has resulted in nearly 350 dedicated biotech start-ups mushrooming in the state.
- R&D response: The biotech companies in Karnataka have also been able to focus on cutting edge research. Several companies from Karnataka feature in the national list of fame. A few examples of start-ups include Achira Labs, Aten Porus, Azooka Life Sciences, Bayou Life Sciences, Bugworks Research, Nirmai Healthcare, Pandorum Technologies, Sea6Energy, and StringBio. During Covid-19 the start-ups responded to come up with nearly 40 products or platforms.

Continuing in the same pioneering path, Government had commissioned the first of its kind study by any state to measure the status of our BioEconomy through the Karnataka BioEconomy Report (KBER). This assumes significance as the concept of BioEconomy is generally taken up at the national level. And Karnataka Government wishes to take the lead in the state through this approach. The State Government is keen that Karnataka transcends beyond the traditional industry-growth focus. Hence, the state wants to focus on BioEconomy. The Karnataka Bioeconomy Report (KBER) 2020 is an attempt to outline the strategic roadmapto harness the transformative power of biotechnology to achieve the goal of \$50 billion by the year 2025 in the state itself.

Karnataka is the first state in the country to measure the impact of the biotechnology industry, its products, and services on its economy. The BioEconomy of Karnataka is estimated to be \$22.6 Billion in FY 2020. The sector witnessed nearly 17 percent growth compared to FY 2019. The BioEconomy of Karnataka was valued at \$19.3 Billion in FY2019 and at \$16.8 Billion in \$FY2018. Karnataka's BioEconomy has grown by 14 - 17% in the previous two years.

Another highlight of the first KBER is that Karnataka's BioEconomy contributes 10.3% to the Gross State Domestic Product (GSDP) of \$ 221.82 billion. Karnataka contributes more than one-third to the national BioEconomy. Nationally, BioEconomy of \$62.5 billion contributed 2.3% to India's \$2.8 trillion GDP in 2019.

Karnataka's BioEconomy has a mixed contribution from the various sectors. BioAgri and animal husbandry industry segments accounted for nearly 21% share of the state's BioEconomy in FY20. The next big contributors are BioPharma and Medtech industries. The BioEconomy value of BioPharma is estimated at \$4.2 billion, while the MedTech is valued at \$3.9 billion and witnessed nearly 17 percent growth compared to FY 2019.

The estimates of key industry segments are as follows.

•	BioAgri:	\$4.7 billion
•	BioPharma:	\$4.2 billion
•	Biomedical:	\$3.9 billion
•	BioServices:	\$2.1 billion
•	BioIT:	\$2.3 billion
•	BioIndustrial:	\$1.4 billion
•	Reagents & Analytical Biz:	\$1.5 billion
•	Marine Biotech:	\$1.8 billion

A conservative forecast puts the BioEconomy of Karnataka to be at \$36 Billion in 2025. The BioEconomy most likely in Realistic conditions will touch \$42 billion. In an optimistic scenario, the BioEconomy will be at \$52 Billion. But with support from the Karnataka Government, the BioEconomy value is likely to cross \$69-70 billion.

BioEconomy of Karnataka (Forecast FY2020-2025)							
Scenarios	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025		
Scenarios	Value in (\$ Billion)						
Pessimistic	21.29	22.63	24.35	26.26	29.83		
Realistic	22.09	23.72	25.74	29.83	34.60		
Optimistic	22.93	25.74	29.83	34.60	40.22		
Desired Target	22.93	28.73	34.60	42.22	51.97		
Source: ABLE Projections							

It is evident from the study that even in the most optimistic scenario, Karnataka's BioEconomy revenues will only reach \$42 billion in 2025. To achieve the desired goal of crossing the \$50 billion mark, the report has recommended for the state to consider the various strategic initiatives to attract additional investments and boost to some of the existing sectors.

Karnataka's growth and development over the years may be attributed to the strongecosystem partners in the State which include the multinational corporations/globalcapability centres in a variety of sectors, robust startup ecosystem with support fromincubators and accelerators and investor friendly policies and reformsWe will continue to undertake initiatives to support andpromote innovation, growth and development of biotechnologyclusters across the state and reach the desired target of US \$ 50 bn bioeconomy by the year 2025.



**Coast Line:** Odisha possess - 500km of beaches. Bhitarkanika and Nalavan sanctuaries are known among the richest biological hub of marine ecological systems. World's largest mass nesting of Olive Ridley occurs along the Odisha coast.

**Forests:** Odisha is covered with 32.33% and is home to 19 wildlife sanctuaries, one national park, and one biosphere reserve. Roughly 2,727 species of plants and over 750 species of medicinal plants found here.

**Chilika:** Chilika spreads over 1165km2. It hosts 4 types of crocodiles, 24 types of mammals, 37 types of reptiles, 726 types of flowering plants and five types of grasses and mangroves. In the peak migratory season the lagoon hosts over 205 species of birds.

**Orchids:** Orchids have high ornamental values. Odisha is native to 133 species of orchids. Regional Plant Research Centre has collection of about 220 orchid species.

# **Biotech ecosystem in Odisha**

State of Odisha possesses a perfect amalgam of knowledge and scientific research that will lead to innovation. The recent initiatives from Govt. of Odisha are committed to promote the innovators to take their ideas or products to the next level.

**Research Organisations:** Are rich source of new ideas and technology. Odisha has several national research laboratories who have already made their name worldwide. Few of them are ILS, NISER, RMRC, CIFA etc.

**Incubators:** The best ideas need a catalyst to turn it into reality. Currently Odisha possess several incubators who can support the companies at their early stages. Few of them are KIIT-TBI, Start up centre at IIT Bhubaneswar, TBI at NIIT Rourkela and TBI at CV Raman Institute etc.

**Academic Institutions:** The raw material driving innovation is knowledge. Odisha possess several premier academic institutions in the field of Science and Technology such as IIT, NIT, NISER, IISER, AIIMS, several state and private universities like Utkal, Ravenshaw, OUAT, KIIT and SOA etc.

#### **New Initiatives:**

### **Odisha Biotech Park:**

- Located at a strategic location, having good connectivity by both road and air.
- 65 acres of land allocated for both startups and biotech companies.
- Proposed well equipped Biotech Incubator to promote the startups.
- A specific body to take care of all the regulatory policies to help the companies at the park.

Driving distance to/from Odisha Biotech Park				
Biju Pattnaik International Airport	10.1km			
Bhubaneswar Railway Station	12.1km			
National Highway 16(Vizag-Kolkata)	8.9km			
Khandagiri-Chandaka Road	1km			
Area Allocation				
Biotech Corridor	40Acres			
Commercial Corridor	14.86 Acres			
Biotech Incubation Centre	9.75 Acres			
Total Area	64.61			

### **Internal Infrastructure:**

- 18.5 M wide Internal Roads with street lighting
- Drainage system with Rain water harvesting
- Centralized Sewage and Effluent Treatment facilities
- Solid waste Disposal through 3rd party agency
- International distribution network for water supply from source point
- Power supply from dedicated sub-station on site
- Secured area with Power Fencing around Compound Wall

# **Academic & Research Ecosystem**

### The ICAR- National Rice Research Institute (NRRI)

- Established in 1946
- Area of Research- Basic & strategic research in rice.
- Contribution from NRRI 128 varieties(23 Upland, 9 Aerobic, 45 Irrigated, 2 Boro, 23 Shallow lowland, 14 Semi deep water, 6 Deep water, 6 Coastal saline rice varieties.)

# KIIT School of Biotechnology, Bhubaneswar

- Established in 2007
- Offers courses in M.Sc/ M.Tech/ Ph.D in Biotechnology, M.Sc in Applied Microbiology.
- Established Technology Business Incubator facility-KIIT-TBI

# The Orissa University of Agriculture and Technology (OUAT)

- Established in 1962
- Offers Bsc, Msc, P.hD in agriculture and allied sciences including Agriculture Biotechnology, Bioinformatics and Microbiology.
- Area of Research- Crop Production, crop management & natural resource management.
- Released 108 high yielding crop varieties including 50 rice varieties suitable for different agro-ecological situations of the State.

# **Xavier Institute of Management, Bhubaneswar**

- Established in 1962
- Offers MBA and PhD degrees in management.
- Carry out research and development activities regularly in collaboration with government departments in the state.
- It is also the Centre of Excellence in Fiscal Policy and Taxation (CEFT) set up by the state Government.

# **Odisha Biotechnology Policy, 2018**

Salient Features

#### **Vision**

To emerge as a world class centre of biotechnology education, research and innovation, entrepreneurship, product development and manufacturing and to create positive economic spill overs as well as health, environmental and social benefits.

# **Objectives**

- Encourage innovation, entrepreneurship and investment.
- Support establishment of Bio-incubators, Technology Business Incubators & Bio-Technology Parks.
- Support skill enhancement of life science graduates to make them "industry ready".
- Support establishment of academic centres of excellence & translational research centres.
- Establish a strong institutional framework for promotion of biotechnology sector in the state.

### Governance

 A Policy Vision Advisory Group (a think tank) on all aspects relating to promotion of BT sector.

- State Level Policy Implementation Committee (chaired by Chief Secretary) to oversee implementation of the Policy.
- Special Single Window Clearance Authority (chaired by Secretary, Science & Technology Department) for clearance of projects involving up to Rs. 50.00 Crore investment.
- Professionally managed Biotech Industry Facilitation Cell which would be the single point interface with the entrepreneur & investors for facilitation & regulatory guidance, etc.

The policy covers all aspects of biotechnology including Biopharma, Bioservices, Agribiotech, Industrial biotech, Systems and Systematic Biotechnology. This Policy is coterminous with Industrial Policy Resolution, 2015.

# **Support for Innovation & Product Development**

- Immersion Fellowships (mentored, 18-24 months, up to Rs. 70,000/- per month, grant as per need).
- Bio-Innovation Grant (BInG): Up to Rs. 50.00 lakh over a period of 18-24 months.
- Biotech Bridge Grant: Post BlnG grant/BlG (BIRAC) grant up to Rs. 35.00 Lakh.
- Biotech Startup Equity Fund with an initial corpus of Rs. 15.00 Crore.

# **Support for Biotechnology Incubators, Biotechnology Parks**

- Matching grant (up to Rs.5.00 Crore) & performance Capital grant for Technology Business Incubators.
- Matching grant (up to Rs.2.00 Crore) for Bio-incubators.
- Standalone one time grant (up to Rs.2.00 Crore) for setting up or upgrading centres of excellence in universities/academic institutions.
- Standalone one time grant (up to Rs.2.00 Crore) for setting up or upgrading Bio-incubators.
- 50% of the infrastructure cost for developing biotech Parks (up to Rs.5.00 Crore).
- Additional support up to Rs. 5.00 Crore for biotech specific infrastructure including biotech incubation centre.

#### **Incentives for BT**

- Allotment of land at concessional rate.
- Exemption of land conversion premium and reimbursement of stamp duty on specified transaction.
- Capital Investment subsidy for all categories of industries.

- Interest subsidy up to specified limit.
- $24 \times 7$  power supply, reimbursement of Electricity Duty up to contract demand of 5MVA for 5 years.
- Subsidy up to 20 Lakhs for adoption of Zero effluent/ water discharge.
- Reimbursement of State GST (7/9 years, up to 200% of cost of plant & machinery).
- Marketing Assistance, Promotional Assistance & many other incentives as per BT Policy, MSME Development Policy, Startup Policy.

### Other features

- Support for BT finishing schools.
- Annual Biotech Conclave.
- Annual Biotech Excellence Awards.
- Establishment of Technology Transfer Offices.
- Collaboration with industry for research, collaboration at local, national & international levels.
- Biotech hackathons, bootcamps, etc.



**Transforming Lives** 

**Biosciences to Bioeconomy** 

**INDUSTRY PARTNERS** 



Biocon is a global biopharmaceutical company that is driven by the vision to make a difference to healthcare worldwide through improved access to high quality, life-saving biotherapeutics by making them affordable for patients.

### A Global Pioneer

Our pioneering spirit paved the way for biotechnology in India, and we continue to apply the same spirit in finding novel approaches to improve patient outcomes today for a better tomorrow. This drives us to continuously find new ways to treat diabetes, cancer and autoimmune diseases. Our R&D focuses on prevention, alleviation and treatment and our medicines improve the lives of millions of patients in over 120 countries, by giving them access to life-saving therapies and relief.

Powered by advanced therapy platforms, our 12,000+ employees blend heart, science and creativity to make better healthcare solutions.

Our four global businesses include generics, biosimilars, research services and novel biologics. They represent Biocon's risk-balanced strategy, underpinned by agile network connections and a robust pipeline. We have leveraged India's value advantage of unmatched scientific talent and cost-competitive manufacturing to deliver scale, speed and quality. By making medicines more easily accessible for patients across the globe, we're working towards achieving health equity.

### **Generics Business**

Our Generics business has been a cornerstone of the Company's success story over the last two decades. Our global portfolio in Active Pharmaceutical Ingredients (APIs) caters to over 1,200 pharma companies in 100+ countries including the U.S, Europe and large emerging markets, with a track-record of excellence for over 20 years. We have attained a commanding share of the global APIs market with our distinctive portfolio of fermentation-derived statins and immunosuppressants. We also have a strong Generic Formulations business, which is powered by our portfolio of complex and differentiated APIs. Forward integration into dosage forms fulfils our commitment to provide continuity of supply of affordable quality medicines to patients across geographies. We have multiple programs to build a robust pipeline of technology-intensive molecules for global markets. Biocon has successfully commercialised a few formulations under its own label in the U.S. and is gradually expanding its reach to other geographies as well.

### **Biosimilars Business**

Biocon Biologics Limited, a subsidiary of Biocon Limited is uniquely positioned as a fully integrated 'pure play' biosimilars organization in the world. Building on the four pillars of Patients, People, Partners and Business, Biocon Biologics is committed to transforming healthcare and transforming lives. Biocon Biologics is leveraging cutting-edge science, innovative tech platforms and advanced research & development capabilities to lower treatment costs while improving healthcare outcomes. It has a platform of 28 biosimilar

molecules across diabetes, oncology, immunology, dermatology, ophthalmology, neurology, rheumatology and inflammatory diseases. Five molecules from Biocon Biologics' portfolio have been taken from lab to market, of which three have been commercialized in developed markets like United States, EU, Australia, Canada and Japan. With a team of over 4,800 people Biocon Biologics aspires to transform healthcare through affordable innovative solutions as well as impact 5 million patients' lives by FY 22.

## **Research Services Business**

Our research services subsidiary Syngene International Limited. is an integrated research, development and manufacturing services company serving the global pharmaceutical, biotechnology, nutrition, animal health, consumer goods and specialty chemical sectors. Syngene's 4200 scientists offer both skills and the capacity to deliver great science, robust data management and IP security and quality manufacturing at speed, to improve time-to-market and lower the cost of innovation. With a combination of dedicated research facilities for Amgen, Baxter, Bristol-Myers Squibb and Herbalife, as well as 1.9 Mn sq ft of specialist discovery, development and manufacturing facilities, Syngene works with biotech companies pursuing leading-edge science as well as multinationals, including GSK and Merck KGaA.

### **Novel Molecules Business**

Our novel assets under development combine early and advanced stage programs. We are the pioneers in developing, manufacturing and launching BIOMAb-EGFR® (Nimotuzumab), India's first indigenously produced novel monoclonal antibody for the treatment of head and neck cancer; and ALZUMAb™ (Itolizumab), the world's first novel anti-CD6 monoclonal antibody in India, for psoriasis. Our current novels portfolio includes Insulin Tregopil, which is a first-in-class oral prandial insulin molecule for post-prandial glycaemic control. In addition to monoclonal antibodies (mAbs) against targets like CD6 and EGFR, we are also developing a mAb against CD20. We also have a pipeline of bispecific fusion antibodies that exploit the recent understanding of the role of checkpoint inhibitors.

#### **Global Scale**

To fulfil our mission of making a difference to global healthcare we have made sizable capital intensive investments in research and manufacturing infrastructure to deliver economies of scale. Over the last decade, Biocon has built India's largest bio-manufacturing facilities in Bengaluru and Asia's largest insulins manufacturing complex in Malaysia. We have also invested in creating one of the largest fermentation based bulk drug capacities for Statins and Immunosuppressants globally. These investments have and will enable us to have a significant global footprint to serve patient needs.

# **Commitment to Quality**

We have established robust regulatory and quality systems to develop and deliver complex therapeutics. Our state-of-the-art manufacturing facilities are designed to conform to the most stringent cGMP guidelines, comply with international regulatory standards and meet client requirements worldwide. We are ever vigilant on quality and compliance through continuous improvement and regularly evaluate our quality systems and manufacturing operations in order to be on par with global best practices.



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Our Generics business has been a cornerstone of the Company's success story over the last two decades. Our global portfolio in Active Pharmaceutical Ingredients (APIs) caters to over 1,200 pharma companies in 100+ countries including the U.S, Europe and large emerging markets, with a track-record of excellence for over 20 years. We have attained a commanding share of the global APIs market with our distinctive portfolio of fermentation-derived statins and immunosuppressants. We also have a strong Generic Formulations business, which is powered by our portfolio of complex and differentiated APIs. Forward integration into dosage forms fulfils our commitment to provide continuity of supply of affordable quality medicines to patients across geographies. We have multiple programs to build a robust pipeline of technology-intensive molecules for global markets. Biocon has successfully commercialised a few formulations under its own label in the U.S. and is gradually expanding its reach to other geographies as well.

## **Biosimilars Business**

Biocon Biologics Limited, a subsidiary of Biocon Limited is uniquely positioned as a fully integrated 'pure play' biosimilars organization in the world. Building on the four pillars of Patients, People, Partners and Business, Biocon Biologics is committed to transforming healthcare and transforming lives. Biocon Biologics is leveraging cutting-edge science, innovative tech platforms and advanced research & development capabilities to lower treatment costs while improving healthcare outcomes. It has a platform of 28 biosimilar molecules across diabetes, oncology, immunology, dermatology, ophthalmology, neurology, rheumatology and inflammatory diseases. Five molecules from Biocon Biologics' portfolio have been taken from lab to market, of which three have been commercialized in developed markets like United States, EU, Australia, Canada and Japan. With a team of over 4,800 people Biocon Biologics aspires to transform healthcare through affordable innovative solutions as well as impact 5 million patients' lives by FY 22.

### Research Services Business

Our research services subsidiary Syngene International Limited. is an integrated research, development and manufacturing services company serving the global pharmaceutical, biotechnology, nutrition, animal health, consumer goods and specialty chemical sectors. Syngene's 4200 scientists offer both skills and the capacity to deliver great science, robust data management and IP security and quality manufacturing at speed, to improve time-to-market and lower the cost of innovation. With a combination of dedicated research facilities for Amgen, Baxter, Bristol-Myers Squibb and Herbalife, as well as 1.9 Mn sq ft of specialist discovery, development and manufacturing facilities, Syngene works with biotech companies pursuing leading-edge science as well as multinationals, including GSK and Merck KGaA.

### **Novel Molecules Business**

Our novel assets under development combine early and advanced stage programs. We are the pioneers in developing, manufacturing and launching BIOMAb-EGFR® (Nimotuzumab), India's first indigenously produced novel monoclonal antibody for the treatment of head and neck cancer; and ALZUMAb™ (Itolizumab), the world's first novel anti-CD6 monoclonal antibody in India, for psoriasis. Our current novels portfolio includes Insulin Tregopil, which is a first-in-class oral prandial insulin molecule for post-prandial glycaemic control. In addition to monoclonal antibodies (mAbs) against targets like CD6 and EGFR, we are also developing a mAb against CD20. We also have a pipeline of bispecific fusion antibodies that exploit the recent understanding of the role of checkpoint inhibitors.

#### **Global Scale**

To fulfil our mission of making a difference to global healthcare we have made sizable capital intensive investments in research and manufacturing infrastructure to deliver economies of scale. Over the last decade, Biocon has built India's largest bio-manufacturing facilities in Bengaluru and Asia's largest insulins manufacturing complex in Malaysia. We have also invested in creating one of the largest fermentation based bulk drug capacities for Statins and Immunosuppressants globally. These investments have and will enable us to have a significant global footprint to serve patient needs.

# **Commitment to Quality**

We have established robust regulatory and quality systems to develop and deliver complex therapeutics. Our state-of-the-art manufacturing facilities are designed to conform to the most stringent cGMP guidelines, comply with international regulatory standards and meet client requirements worldwide. We are ever vigilant on quality and compliance through continuous improvement and regularly evaluate our quality systems and manufacturing operations in order to be on par with global best practices.



Gennova Biopharmaceuticals Limited., headquartered in Pune, India, is a biotechnology company dedicated to developing, producing, and commercializing biotherapeutics to address life-threatening diseases across various indications.

Gennova is transforming healthcare by creating efficient and effective solutions for manufacturing and successfully commercializing bio-therapeutics across cardiovascular, neurology, nephrology, and oncology segments. Incorporating recombinant DNA technologies and innovative bio-manufacturing practices The company manufactures its recombinant products using bacterial, yeast, and mammalian-based expression platforms and has developed deep expertise in perfusion-based continuous manufacturing technologies. To date, Gennova has commercialized seven products; 5 biosimilars, one generic, and one pioneering – 'first in the world' product.

To boost the next-generation manufacturing technologies for bio-therapeutics production and the development of parallel innovating tools to reach patients, Gennova strives to improve and innovate continuously to respond effectively to healthcare challenges.

Innovation is central to Gennova's continued success. This innovation comes from both its internal attributes, capabilities, external collaborations and synergistic partnerships.

The state-of-the-art facilities, R & D capabilities, and knowledgebase development have empowered Gennova to take a product from bench to bedside/gene to market. Gennova has a team of experienced and capable scientists and technocrats who have developed capabilities across scientific, manufacturing, regulatory, clinical, and business arenas that have made it successful in the Indian market.

Through innovation-driven bio-manufacturing, Gennova became the first biotechnology company in India to launch the biosimilar of the third-generation thrombolytic protein, Tenecteplase, addressing the unmet need in cardiovascular diseases. Carrying on with its innovation to transform healthcare, Gennova launched Tenectase®, a pioneering work, where first time globally, a third-generation thrombolytic was approved for the indication of Acute Ischemic Stroke (AIS).

This innovation was recognized by the Department of Biotechnology (DBT), Govt. of India for the 'Biotech product, process development and commercialization award 2019'. Additionally, this 'Make in India' product has found its way in the list of drugs for emergency care for stroke management in the guideline – 'Prevention and Management of Stroke,' issued by the Ministry of Health and Family Welfare, Govt. of India.

Gennova's innovation around high cell density fermentation and genetic manipulations for its microbial products have successfully culminated in the development and commercialization of filgrastim and its long-lasting pegylated version PEG-filgrastim. Continuing its efforts on innovative pegylation processes, Gennova was the first Indian

company to develop generic pegaspargase, HAMSYL®, and launch it in 2014 for use in acute lymphoblastic lymphoma (ALL), an orphan indication at the request of the Tata Memorial Hospital, Mumbai, India.

Gennova's socio-economic responsibility has propelled it to establish itself it Global Health Initiative program, under which Gennova has established itself as a preferred research and cGMP manufacturing partner in the area of vaccine development to address some of the world's most challenging diseases, particularly for the developing world like malaria, Leishmania, flu etc.

Gennova's socio-economic responsibility has propelled it to set up the Global Health Initiative program, under which Gennova has established itself as a preferred research and cGMP manufacturing partner in the area of vaccines. Gennova's vaccine development initiative addresses four endemic diseases - malaria, tuberculosis, leishmaniasis, and flu. In this field, Gennova has national and international collaborations, e.g., University of Delhi South Campus (UDSC), PATH Malaria Vaccine Initiative (MVI), European Commission (under FP7 and Horizon 2020), Infectious Disease Research Institute (IDRI), National Institutes of Health (NIH), Johns Hopkins University (JHU), The London School of Hygiene & Tropical Medicine (LSHTM) and The Walter and Eliza Hall Institute (WEHI).

Recently, Gennova, in partnership with the US-FDA, McGill University, Ohio State University, Nekken Institute of Tropical Medicine, NIH, and JHU, has entered into a collaboration to develop and manufacture clinical-grade material of the genetically modified live attenuated Leishmania vaccine candidate, funded by the Global Health Innovative Technology Funds (GHIT), Japan. The program represents two important milestones for Gennova; having a collaborative vaccine program with the US-FDA is a significant testimony to Gennova's capabilities and attributes and involves the formulation and manufacturing of a live attenuated vaccine to Gennova's other vaccine programs, which focuses on recombinant-based products.

Gennova is currently working towards a therapeutic intervention and an mRNA-based vaccine against COVID-19. Gennova, in collaboration with HDT Biotech Corporation, Seattle, USA, has worked together to develop an mRNA vaccine since the first report of the SARS-CoV-2 genome was published. HGCO19 has already demonstrated safety, immunogenicity, neutralization antibody activity in the rodent and non-human primate models. Gennova will soon start the clinical trials.

The novel mRNA vaccine candidate, HGCO19, has all the necessary information to guide the host cells to make the antigen – spike protein of the virus, reported to interact with host cells receptor, and supported by 'lipid inorganic nanoparticle (LION)' as a delivery vehicle. HGCO19 uses the most prominent mutant of spike protein (D614G) as a vaccine candidate. It is designed on the self-amplifying mRNA platform, which gives the advantage of a low dosing regimen compared with the non-replicating mRNA or

traditional vaccines. Additionally, the mRNA is attached to the nano-lipid carrier's surface to enhance the release kinetics of the mRNA within the cells compared to the encapsulation chemistry.

This mRNA-based vaccine platform will enable Gennova to handle the current pandemic situation and to combat the endemic stage that will follow (mutation in the virus, childbirth, unvaccinated low-risk population, etc.). Further, this technology offers a rapid development path that will also empower Gennova for combating future pandemic outbreaks.

Gennova aspires to transform the healthcare of millions of people, primarily through technological solutions, employing Al-assisted innovation in bio-manufacturing, diagnosis, and treatment for a better outcome.

Gennova believes that their experience and success-driven approach will facilitate their present and future journey from product development to the clinic and beyond.

Today, Gennova can proudly say that its technological innovation in healthcare has made a difference to hundreds of thousands of human lives. In subsequent years, Gennova would like to say that that it has positively impacted hundreds of millions of lives across the globe and, in the process, be the top 10 technology-driven companies in the world.



Premas Biotech develops novel & transformational technologies and partners with biopharmaceutical companies globally to build and develop novel biotherapeutic & vaccine candidates. Our technologies and services have helped our partners expedite biologics discovery programs by cutting down significantly both on costs & time to clinics. Premas' key focus areas are infectious diseases, cancer, metabolic disorders and inflammation.

Our leading technologies include:

**D-Crypt,** a platform for 'difficult-to-express' proteins, is designed to considerably reduce time, cost, and risks associated with producing high-quality recombinant proteins. D-Crypt combines a yeast expression host with over 20 custom-made expression vectors.

**AXTEX-4D,** a three-dimensional cell culture platform, engineered to produce high-throughput screens for targeted immuno-oncology drug candidates, is compelling scientists to relook at their tumor-targeting strategies. The ex-vivo culture systematically mirrors the in-vivo tumor microenvironment and is poised to revolutionize both drug discovery & combinatorial therapies.

**C-Qwence,** our naive India-based Antibody Library is harnessing the power of a genetic pool that is more diverse than any other region and has exposures to infectious diseases and changes in an environment not seen in Europe or America. C-Qwence captures the wealth of novel genetics and has shown immense potential in finding new binders and developing monoclonal/bispecific antibodies.

Our breakthrough technologies are supported by state-of-the-art Gene to IND biologics development capabilities across multiple host systems - bacterial, yeast and mammalian, helping pharmaceutical companies accelerate the delivery of new medicines to patients. Our services include:

- Cell Line Development
- Scouting
- Process Development
- Scale Up & Manufacturing
- Analytical & Functional Assays

We are a world-class team of 150 dedicated scientists and managers, who have successfully developed over 650 molecules. By fostering an innovative and inclusive culture, we have created an ecosystem for establishing productive, long-term partnerships with our clients.

With our labs & manufacturing facilities, Premas Biotech is headquartered in Gurugram, India and has a presence in the US, Germany & Israel.

For more information, visit us at: www.premasbiotech.com or reach out to us on contact@premasbiotech.com

Imagine together, Possible together!



The Institute of Bioresources and Sustainable Development (IBSD) at Imphal, Manipur was established, keeping in mind the requirement of a capable institution for finding scientific ways for the sustainable uses of the bioresources and its protection to stop the depletion of the rich biodiversity in the NER. Since its inception in 2001, IBSD Manipur has been working on various thrust areas in this context including the medicinal and aromatic plants, orchids and bamboo, ethnobotanical studies, natural product chemistry, microbial diversity, fermented foods & gut microbiota, insect bio resources, freshwater bio resources and aquaculture.

To help in the process of development of bioeconomy of the country, work is being performed highlighting on several aspects containing di\_erent verticals for research, including Phytopharmaceutical Mission, Ethnopharmacology, Drug Development, Microbial Resources, Fermented Food and Value Addition, Plant Resources, Animal Resources, Eco-Restoration, and Bioenergy & Siofuel. In addition to it, we are using Bioinformatics in all the verticals for advanced data analytics, visualization, documentation and storage to strengthen the objectives of the Institute.

IBSD, Imphal along with its centres and nodes at Shillong, Meghalaya; Gangtok, Sikkim; and Aizawl, Mizoram; with the active participation of committed sta\_ continues to be a pillar of excellence and a pioneer of bio resource conservation, development and research in the North Eastern Region of India. International as well as national collaborations in and across various laboratories from India and abroad has been made.

The Ishopanishad says environment belongs to all living beings, so it needs protection by all, for the welfare of all. Science is a work in progress, new information and technological advances being constantly added as the world develops. Human civilization was built on the basic understanding of identifying bioresources and their applications for sustainable development. We at IBSD believe that in order to keep us updated and continue to contribute to the society, integrated and synergistic research is essential. Hence, partners from all sectors and diverse stakeholders are engaged with

our institute, through multi-disciplinary, inter-disciplinary and trans-isciplinary approaches.

We are striving to build further on the strong fundamentals and mandates of IBSD and attain greater heights of eminence through our e\_orts. Biodiversity is the nature's gift for everyone. Let us preserve those gifts and promote them for the betterment of the society at large. I hope, with your whole hearted support, we will be able to take IBSD to further heights.

# SERUM INSTITUTE OF INDIA PVT. LTD.

Serum Institute of India Limited. has established itself as the world's largest producer of Measles and DTP group of vaccines. It is estimated that two out of every three children immunized in the world is vaccinated by a vaccine manufactured by Serum Institute. In fact, our range of products have been used in 140 countries across the globe.



Serum Institute of India was founded in 1966 with the aim of manufacturing life-saving immuno-biologicals, which were in shortage in the country and imported at high prices. Thereafter, several life-saving biologicals were manufactured at prices affordable to the common man and in abundance, with the result that the country was made self-sufficient for Tetanus Anti-toxin and Anti-snake Venom serum, followed by DTP (Diphtheria, Tetanus and Pertussis) group of Vaccines and then later on MMR (Measles, Mumps and Rubella) group of vaccines. The Philanthropic philosophy of the company still not only exists but has been proliferated to bring down the prices of newer vaccines such as Hepatitis-B vaccine, Rabies vaccine, Combination vaccine etc., so that not only Indian's, but the entire under-privileged children of the world, in more than 140 countries are protected from birth onwards.

Serum Institute of India has recently set up Serum Bio Pharma Park, India's first biotech Special Economic Zone (SEZ). The Park is adjoining Serum Institute's existing manufacturing unit and is a sector-specific SEZ meant for biotechnology and pharmaceutical products. We have been ranked as India's No. 1 biotech company consecutively for the last 4 years (2006-09).

Our list of vaccine includes the whole range from birth to adolescence:

- BCG vaccine
- DTP group of vaccines (DTP, DT, TT and Td-vaccines)
- Measles vaccine
- Rubella vaccine

- Measles-Mumps-Rubella vaccine
- Recombinant Hepatitits-B vaccine (genetically engineered)
- Hib vaccine
- Combination vaccines: DTP-HB-Hib vaccine & DTP-HB vaccine
- Rabies vaccine
- H1N1 swine flu vaccine

Serum Institute is associated with WHO and other International agencies for development of newer vaccines like aerosol measles vaccine, rotavirus vaccine, etc

Serum Institute of India Pvt. Limited has launched two very unique products i.e. **Rotasiil** which is the world's first thermostable rotavirus vaccine that can be stored below 25°C & **RABISHIELD** which is world's first recombinant rabies monoclonal antibody (R-mAb) which has significant advantages over the currently used Equine & Human Rabies immunoglobulins.

Serum Institute also has its presence in Nephrology with their leading brand of Erythropoietin - **REPOITIN**. In fact, when other brands of EPO being sold at an un affordable prices, Serum got into manufacturing of this biological to make it affordable to needy people in India. This product has been all blessing to lacks of patients with CKD.

Serum Institute through its huge manufacturing capacities is now one of the largest manufacturers for various candidates of COVID-19 vaccines and helping the world to fight against the pandemic.

**COVISHIELD** - one of the vaccines for protection against COVID-19 is already licensed and being supplies to few countries. The govt of India has licensed it under EUA and has already procured for vaccination high risk population.



Cytiva is a global provider of technologies and services that advance and accelerate the development and manufacture of therapeutics. Formerly part of GE Healthcare Life Sciences, we have a rich heritage tracing back hundreds of years, and a fresh beginning since 2020.

Cytiva is a global leader with top tier brands that provides technologies and services that advance and accelerate the development of therapeutics. With over 100,000 systems in use globally and 75% of FDA-approved biotherapeutics manufactured using our technologies, our market-leading brands, such as ÄKTA™, Amersham™, Biacore™, FlexFactory™, HyClone™, KUBio™, MabSelect™, Whatman™, Xcellerex™, and Xuri™ to name a few, are helping customers advance and accelerate therapeutics.

We are a trusted collaborator for both academia and industry and continually partner with customers to understand their needs and challenges, and helps them realize efficiencies in their research and manufacturing workflows. Cytiva supports customers at every stage of biomanufacturing, from clinical trials to commercial manufacturing. We also work closely with the industry leaders, including Pfizer, Lonza and Beigene, to establish the off-the-shelf KUBio factories in half the time it would take to build a traditional biomanufacturing facility.

Futurescope: Our vision is a world in which access to life-changing therapies transforms human health. We realize our vision through keeping to push the boundary of our daily mission is to advance and accelerate therapeutics.

# Thermo Fisher

Thermo Fisher Scientific Inc. is the world leader in serving science, with annual revenue exceeding \$30 billion. Our Mission is to enable our customers to make the world healthier, cleaner and safer. Whether our customers are accelerating life sciences research, solving complex analytical challenges, improving patient diagnostics and therapies or increasing productivity in their laboratories, we are here to support them. Our global team of more than 80,000 colleagues delivers an unrivaled combination of innovative technologies, purchasing convenience and pharmaceutical services through our industry-leading brands, including Thermo Scientific, Applied Biosystems, Invitrogen, Fisher Scientific, Unity Lab Services and Patheon. For more information, please visit www.thermofisher.com.



For over 200 years, USP has worked to build trust where it matters most: in the world's medicines, dietary supplements and foods. Through our rigorous science and the public quality standards we set, USP helps protect patient safety and improve the health of people around the world. USP is an independent, scientific nonprofit organization focused on building trust in the supply of safe, quality medicines. We are working to strengthen the global supply chain so that the medicines people rely on for health are available when needed and work as expected. Pharmaceutical science expertise, of our staff and world-wide volunteer experts, is the foundation of USP's work to help advance public health and ensure the quality and safety of medicines, dietary supplements and foods.

The quality standards we develop help manufacturers deliver safe products to billions of people worldwide. The United States Pharmacopeia-National Formulary (USP-NF) includes over 6,800 of those quality standards for medicines, both chemical and biologic; active pharmaceutical ingredients; and excipients (inactive ingredients). It is the most comprehensive source in the world for quality standards and is utilized in over 150 countries worldwide and integrated into the laws of more than 40 countries, including in the U.S.

Safeguarding the quality of medication is fundamental to protecting the public's health, especially as ingredients and products come from all over the world. Biologics — such as recombinant therapeutic proteins, vaccines, blood components, tissues and gene therapies — are growing faster than any other segment of medicine. Just as they do for chemical medicines, manufacturers must ensure the purity and quality of the biologics that make their way to patients. USP quality standards serve as the foundation for a robust safety network that assists manufacturers by increasing predictability and reliability, and preserving the integrity of the global supply chain.

USP Biologics has long-standing relationships with organizations across the globe, maximizing our impact in standards setting.

- USP Biologics participates in harmonization of Biotechnology Chapters through the Pharmacopeial Discussion Group (PDG), formed with representatives of USP, the European Pharmacopoeia, and the Japanese Pharmacopoeia.
- European Directorate for the Quality of Medicines & Healthcare (EDQM)
- Health Canada: Biologics, Radiopharmaceuticals and Genetic Therapies
- USP Biologics works with Health Canada under the Cooperative Research and Development Agreement (CRADA) between the two organizations. Health Canada staff also volunteer in our Expert Committees, and their labs participate in our reference standard collaborative testing.

- National Institute of Biologics (NIB), Government of India
  - USP-India Biologics staff participates in collaborative testing of reference standards developed by NIB. In addition, the USP Biologics staff train NIB scientists, hands on in the laboratory, as well as in USP Workshops and PE courses. The training partnership will soon include joint training sessions.
- Pharmaceuticals and Medical Devices Agency
- UK: National Institute for Biologics Standards and Control
  - USP Biologics has an MOU with NIBSC governing the collaboration on reference standard production, reference standard co-development and collaborative testing. In addition, NIBSC staff volunteer on our Expert Committees.
- US Food and Drug Administration
  - US FDA staff participate as liaisons on our Expert Committees, and work with USP Biologics staff on standards development. Our work together is governed by a CRADA, and work together on the FDA/USP Substance Registration System (SRS).
- WHO: Immunization, Vaccines and Biologicals
  - USP Biologics staff sit as observers on the Expert Committee on Biological Standardization (ECBS) as well as perform collaborative studies for ECBS. In addition, our Expert Committees provide input to their guidance documents.



Biological E. Limited (BE), founded in 1953, is the first private sector biological products company in India and the first pharmaceutical company in South India. Originally incorporated as Biological Products Private Limited, BE develops, manufactures and supplies vaccines and therapeutics.

BE has eight World Health Organisation (WHO) pre-qualified vaccines - DTwP, HepB, Hib, TT, Td, Japanese Encephalitis (JE), Measles and Rubella (MR) and Typhoid Conjugate Vaccine. BE is capable of developing and manufacturing vaccines across the entire spectrum of vaccine technology platforms, including microbial/bacterial fermentation, recombinant vaccines and viral vaccines. BE supplies several essential and lifesaving Vaccines and Pharmaceuticals to UN agencies such as UNICEF, PAHO, many global markets, and in India to the National Immunization program, various State Governments, PSUs, Indian Armed Forces and the domestic retail market. BE has a long and richly textured history of supporting public health programs in India for over five decades.

BE is not only the leading supplier of pentavalent vaccine in the world and but also the largest producer of tetanus vaccine in the world. It is the leader in snake antivenom in India. It is also a leading supplier of critical injectables, including Anti- Coagulants in India. It also has trusted remedies for cough, cold, gastrointestinal disorders, respiratory issues and critical care products such as snake antivenom and injectables.

In recent years, BE has embarked on new initiatives for organisational expansion such as developing generic injectable products for the regulated markets, exploring synthetic biology and metabolic engineering as a means to manufacture Active Pharmaceutical Ingredients (APIs) sustainably and developing novel vaccines for the global market.

BE partners with Bill and Melinda Gates Foundation and through this alliance, exports vaccines to over 100 countries and has exported several millions of doses of LPV to children all over the world. The total number of doses supplied to the public and private market exceeds two billion. It has a presence in all most all the continents of the world.

BE attracts talent from around the world and has more than 5000 committed and dedicated employees, including renowned scientists. It has three state-of-the-art facilities for the development, scale-up and commercial manufacturing located in Hyderabad, India. Its facilities have been certified by the USFDA, the WHO and others. BE partners with leading global organizations and government research institutes to develop innovative vaccines and therapeutics and also to take those to the remote corners of the world, thereby spreading the joy amongst the communities and helping them celebrate their lives!

BE has received several awards and recognitions. It received Pharmexil award from the Ministry of Commerce and Industry, Government of India, consecutively for three years from 2014. In 2017, BE listed in Fortune India the Next 500. BE ranked seventh among the top 20 biotechnology companies in India in a survey conducted by BioSpecturm in 2021.



Crescent Innovation Incubation Council (CIIC) is established as a Section-8 not-for Profit Company under the ambit of BSA Crescent Institute of Science and Technology and acts as a one-stop shop- Technology Business Incubator (TBI). CIIC Bionestis funded by BIRAC with a grant amount of Rs. 1.8 Crores for setting up Life -Sciences state-of-the-art lab comprising equipment for microbiology and molecular biology. CIIC has profoundly implemented and follows the National Innovation Start-up Policy put forth by the Ministry of Education and has obtained the BAND A (6th-25th) rank in ARIIA (ATAL ranking of Institutions on Innovation Achievements) in the category of "University & Deemed to be University" (Private/Self-financed) and has received 5-STAR ranking in Institutions Innovation Council (IIC).

Within a year's progress CIIC has incubated 34 Life Science startups, where founders are Crescent students, faculty members, alumni and startups from external. These start-ups provide solutions for Agri-Tech, Med -Tech, Bio-Industrial, Bio-Pharma, Bio-Energy and Bio-Services. CIIC Start-ups have devised 22 frugal solutions to the local community to fight against COVID-19 battle during lock-down. Two of our life sciences start-ups have received BIG grant of 50 Lakhs each and a grant from ICMR of Rs. 150 Lakhs. CIIC is the first incubator in Tamil Nadu to receive the highest number of Innovation Voucher Programs grants offered by Entrepreneurship Development Institute of India- TamilNadu.

CIIC provides a launching platform for the start-ups to display their products within the facility in various capacities. Impensus Electronics Private Limited (A startup incubated in CIIC) installed a pilot unit of "Controlled Environment Mushroom Cultivation" in CIIC integrating different sensors, humidifiers, ventilation dampers, refrigeration systems to provide an automated mushroom cultivation system. Agrit Greenhouse Solutions Private Limited (A startup incubated in CIIC) which specializes in Construction of polyhouse/shade-house/trellis/irrigation system etc. has installed a polyhouse facility in CIIC. Farmagain Agro Private Limited (A startup incubated in CIIC) setup its GroTronTM, which is an automated irrigation and fertigation system employing different sensors through an IoT setup. WeGOT Utility Solutions Private Limited. (A startup incubated in CIIC) installed a pilot unit of their "Wisdom Water Management System" in the Centre for Research in Precision Agriculture and Rural Technologies at CIIC. KankyoCleantechPrivate Limited installed a state-of-the-art facility in biowaste management within Crescent University campus 500kg biogas plant supported by DBT funding and CLRI, A co-digestoris erected for vegetables wastes and food wastes.

CIIC provides an office space and connect with investors from the industry by way of smart capital. We have partnered with leading social entrepreneurship organisations like the Wadhwani foundation; Social Alpha, funded by Tata Trusts and Govt of India

and many more of similar nature. In addition, we have also collaborated with associations like CII, Ministry of Education, under government of India's 'Innovation cell', Tie Chennai, Start-up India, etc. We also have a huge pool of mentors who have embarked on similar journeys. CIIC has also tied up with several international associations from Europe and Middle East.

With respect to scaling up and growth via technology, CIIC incubates can avail several lakhs worth of products necessary for a company to streamline their operations and market them.



#### INDIAN IMMUNOLOGICALS LIMITED

Indian Immunologicals was setup by The National Dairy Development Board (NDDB) in 1982, as its unit, with the objective of making vaccines available to farmers at an affordable price. The unit was corporatized as Indian Immunologicals Limited (IIL) in the year 1999

IIL is the market leader in veterinary biologicals in India and operates one of the largest plants in the world for veterinary vaccines. IIL has adequate infrastructure and cold chain maintenance capabilities to reach out to the nooks and corners of India. This fexibility in logistics has ensured many products of IIL to occupy top slots in the market.

IIL started manufacturing human vaccines in 1998 at the specific request of the Government of India. IIL is the second company in the world and first in India to launch the purified Vero cell rabies vaccine (PVRV) with the brand – Abhayrab. This led to the discontinuation of use of the older and unsafe sheep brain vaccine (also termed nerve tissue vaccine – NTV) in the Country.

IIL is a major player in the human vaccine market in India, focusing on the pediatric and rabies vaccine segments. IIL is also a major supplier of pediatric vaccines to India's large Universal Immunization Programme.

IIL pursues not only the mandate of NDDB to provide products and services to enhance the quality of livestock in the country, but also utilizes its technological capabilities for the benefit of the people.



Symbiorph Clinical Trialogy is a Medical Device and IVD focused Clinical Validation and REegulatory Solution Strategists. The Company is founded by Mr. Siddharth Jain in year 2015. Siddharth has more than 10 years of rich experience in performing the Clinical Validation and providing the regulatory support to 100s of medical device manufacturing companies of India.

Symbiorph Clinical Trialogy is leading consulting firm having specialization in Medical Device Regulatory Affairs Consulting that includes industries like AI, SaMD, IVD, Surgical Disposable, Drug-Device Combination products, Digital health care products, Active Diagnostic Device and many more.

We take pride for having a very Dedicated, Compassionate & Professional team to serve you.

Since our inception in 2015, we have served more than 100 clients, who are our happy customers & continue to be empowered by our regulatory knowledge and implementation skills.

Our clients range from growing start-up companies with a man power of 5-7 employees to established Industry multinationals with thousands of employees under their systems, which includes domestic as well as International clients.

Over the years we have developed a reputation for providing extremely high-quality implementation, effecting training and consulting services to Medical device Industry. Our Clients trust us to design their QMS, technical files, train their employees, register their products globally, help them stay in compliance with changing regulatory needs / guidelines and regulations.

We are supporting medical device and IVD manufacturers in following regulatory approvals:

- EN ISO 13485:2016
- CE Certification as per MDR 2017/745
- USFDA 510k
- MDSAP (Medical Device Single Audit Program) and
- Manufacturing License as per Indian Medical Device Rule

We are appointed as an Advisor and Mentor for medical device start-ups in following institutes:

- RICH, Hyderabad
- Social Alpha, Bangalore
- Deshpande Startups, Bangalore
- Manipal-GOK Bioincubator
- KIIT-TBI, Bhubaneswar
- AIC-CCMB, Hyderabad
- IIIT-H, Hyderabad

## Syngene

Syngene International Limited. (BSE: 539268, NSE: SYNGENE, ISIN: INE398R01022) is an integrated contract research, development and manufacturing organization providing scientific services - from early discovery to commercial supply. Our innovative capabilities for novel molecular entities (NMEs) cater to a wide range of industrial sectors, including pharmaceutical, biotechnology, nutrition, animal health, consumer goods and speciality chemical companies.

Our Discovery services comprise early stage research from target identification to delivery of drug candidates for further development. Development services encompass activities from pre-clinical to clinical trials including Drug Substance Development (DSP), Drug Product Development (DPD) and associated services to demonstrate safety, tolerability and efficacy of the selected drug candidate.

Our Manufacturing services for small and large molecules include cGMP-compliant facilities for clinical supplies, registration batches as well as commercial volumes through our API manufacturing plant and disposable Biologics manufacturing facility.

Driving our innovative culture is our highly qualified team of 4200 scientists, supported by state-of-the-art infrastructure and market-leading technology. Our scientists have both the skills and the capability to deliver great science, ensure robust data management, IP security and quality manufacturing, at speed, to improve time-to-market and lower the cost of innovation.

With 1.9 Mn sq ft of specialist discovery, development and manufacturing facilities, Syngene offers dedicated research facilities for Amgen, Baxter, Bristol-Myers Squibb and Herbalife. We also work with biotech companies pursuing leading-edge science as well as multinationals including GSK and Merck KGaA. Smaller and virtual companies, non-profit institutions, academic centers and start-ups also collaborate with us for their research-related requirements.

Syngene's state-of-the-art research facilities are ISO 9001:2008, ISO 14001:2004 and OHSAS 18001:2007 certified. Our animal facilities are GLPcertified by Indian authorities and also AAALAC accredited. Syngene is also India's only GLPcertified (by National GLP Compliance Monitoring Authority Govt. of India) viral clearance service provider.

A strong corporate governance framework with a focus on client satisfaction, quality, safety, ethics and integrity, makes us the partner of choice for all research-related services. Currently, we have >360 active clients across US, Europe, Japan, India and the rest of the world, with 450 patents held with clients.

Founded in 1993, Syngene is headquartered in Bengaluru, India, with a wholly owned overseas subsidiary, Syngene USA Inc., incorporated in USA.

For more details, visit www.syngeneintl.com.



Engineers India Limited (EIL) is a leading global engineering consultancy and EPC company. Established in 1965, EIL provides engineering consultancy and EPC services principally focused on the oil & gas and petrochemical industries.

The Company has also diversified into sectors like infrastructure, water and waste management, solar & nuclear power and fertilizers to leverage its strong technical competencies and track record.

Today, EIL is a 'Total Solutions' engineering consultancy company providing design, engineering, procurement, construction and integrated project management services from 'Concept to Commissioning' with highest quality and safety standards. It also provides specialist services such as heat and mass transfer equipment design, environmental engineering, specialist materials and maintenance and plant operations and safety services.

With corporate office in New Delhi, EIL also operates from its office in Gurugram, branch office in Mumbai, three regional engineering offices in Kolkata, Chennai & Vadodara and has inspection offices at all major manufacturing locations of the country. The company's overseas presence is marked by an engineering office in Abu Dhabi, which caters to the business needs in UAE/Middle-East region. Additionally, there are offices in London, Milan and Shanghai to coordinate the activities of international procurement and marketing.

EIL's technological excellence is driven by 2409 engineers & professionals in a competent employee base of 2806 employees as on March 31, 2020. The availability of technical resources per annum is about 4.6 million man-hours in EIL's design offices along with 1.19 million man-hours of construction management services.

#### **Research & Development**

EIL is a technology-driven organization which believes that investment in technology is imperative for maintaining its leadership position. EIL has established a sophisticated research and development center in Gurgaon and the R&D division is pursuing technology development both in-house and in collaboration with other organizations like IOCL-R&D, BPCL-R&D, IIP, CHT, HPCL, CPCL, NRL etc.

EIL has developed more than 35 process technologies and its portfolio includes various technologies for petroleum refining, oil and gas processing and aromatics. EIL currently holds 31 live patents and has 27 pending patent applications relating to various process technologies.

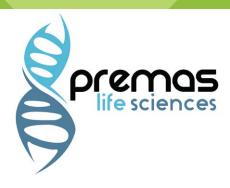
#### **Expanding Horizons**

Leveraging its engineering consultancy, EPC capabilities and successful track record, EIL has successfully diversified into high potential sectors of Infrastructure, Water & Waste Management, Cold Chain Warehouses, Solar & Nuclear power and Fertilizer. The Company has also initiated business development activities in sectors like Bio Fuels, SMART Cities, LNG Terminals, Ports and Harbours, Defence etc., as part of possible diversification initiatives aligning with Government of India initiatives.

#### **International Footprints**

EIL has leveraged its strong track record to successfully expand its operations internationally. The Company has earned recognition for jobs executed in several countries of Middle East, North Africa and South East Asia including Algeria, Bahrain, Iraq, Kuwait, Qatar, Saudi Arabia, UAE etc. Most of the major oil & gas companies in these regions like Sonatrach, GASCO, ADCO, ZADCO, KNPC, BAPCO, BANAGAS etc. have utilized EIL's services for their prestigious projects. The Dangote Refinery and Petrochemical Project, Nigeria, comprising a 460,000 BPSD grassroot Petroleum Refinery and 830 KTPA Petrochemical Complex, is in full swing and EIL is contemplating its focus on the African countries as a part of its geo-strategic outreach.

EIL's robust corporate strategy steered by its corporate vision to build a world-class EPC and total solutions consultancy organization continues to inspire its workforce to deliver excellence and to create a business portfolio for long term sustainable growth.



Incepted in 2006 by a team of avid science enthusiasts & experienced professionals, Premas Life Sciences is a focused and dynamic organization endeavoring to introduce niche gamegamegame -changing tecchanging t

Our products range from high end genomics equipments and associated services to reagents and consumables, thereby enabling researchers with analytical tools to address key molecular biology research questions. In a short span of time, we have created an enviable reputation of high-quality pre-sales and after-sales support to our customer base, via a dynamic network of motivated professionals based across the key cities of India.

In addition to our Marketing set up, we have a lab facility with many doctorates on board. We routinely use our facility for customer demonstrations.

Our Life science business started with a successful association of launching Illumina (a leading Global Genomics player) products in India and has now expanded with many other cutting-edge technologies added to its repertoire. We provide integrated solutions for multidisciplinary research across academic and industrial laboratories and the myriad applications that we cater to include:

- Life Science Research (Both government and Private labs)
- Drug Discovery
- Agricultural Biology
- Molecular Diagnostics
- Clinical Research
- Applied Research in Microbiology, Infectious Diseases, food testing, forensics, energy sector, bio banks etc. Our Menu today includes globally leading brands like:

Illumina, Fluidigm, Covaris, Acea Biosciences; a part of Agilent Technologies, Askion, 10x Genomics, Genolution, Tanbead, ArcherDx, Unchained Labs, Codex DNA, Twist Biosciences, JnMedsys, Genescript & Protein Simple



Panacea Biotec is a leading research based pharmaceutical & biotechnology company and pioneer in development of vaccines and pharmaceutical formulations in India. The Company is amongst the top 15 pharmaceutical companies in its represented market in India and amongst top 60 pharmaceutical Companies in India (AIOCD AWACS-MAT MAR-2019). The Company has been awarded with the prestigious "India Innovation Award – Top 50" by Clarivate Analytics (Thomson Reuters) for the years 2015 & 2016.

Panacea Biotec has supplied over 10 billion doses of vaccines to Govt. of India, UNICEF, PAHO, WHO etc. The product portfolio includes innovative products in therapeutic areas of oncology, organ transplantation, nephrology, diabetes, osteoporosis, cardiovascular diseases and paediatric vaccines. The company has strong product portfolio, established R&D capabilities, robust product pipeline, state of the art manufacturing facilities, strong sales and distribution network, growing collaborations and alliances, highly efficient management and global footprints. Panacea Biotec has over 2700 employees, over 440 products patents and 110 plus applications under process.



**Transforming Lives**Biosciences to Bioeconomy

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#### **ABLE**

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**Email** : pavanapr@ableindia.org.in

Website: www.ableindia.in

**Contact**: Pavana Praveen, Manager Operations and Business Developement

**Company Profile:** ABLE-Association of Biotechnology Led Enterprises is a not-for-profit pan-India forum that represents the Indian Biotechnology Sector. It was launched in April 2003, after industry leaders felt a need to form an exclusive forum to represent the Indian Biotechnology Sector.

ABLE is a founding member of the International Council of Biotechnology Association (ICBA).

ABLE has approx. 250 members representing all verticals of the sector like agribiotech, biopharma, industrial biotech, bioinformatics, investment banks, Venture Capital firms, leading research and academic institutes, law firms, equipment suppliers and students.

The primary focus of ABLE is to help accelerate the growth of the Biotechnology sector in India to attain 100 billion USD by 2025, through partnering with the Central and State Governments in their biotechnology initiatives to deliver optimal policies and create a positive regulatory environment, encouraging entrepreneurship and investment, providing a platform for domestic and overseas companies to explore collaboration and partnerships, forging stronger links between academia and industry and by showcasing the strengths of the Indian biotech sector.

ABLE thus catalyses a symbiotic interface between the industry, the government, academic and research institutes and domestic and international investors.

ABLE's objective is to work in consensus with all stake-holders, towards ensuring an effective, enabling and supportive environment for the Indian biotechnology sector to substantially contribute to India's economic and social growth by providing access to affordable healthcare, food and clean and sustainable energy.

ABLE uses a multi-pronged strategy to deliver its objectives that includes Advocacy, Promoting entrepreneurship, industry-Academia linkages, International outreach through showcasing Indian public and private biotech sectors and Organizations at International for a, among others.



#### **ADVANTAGE ORGANIC NATURALS TECHNOLOGIES Private Limited**

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**Tel** : +91-9811108402

**Email** : advantagenature@hotmail.com

Website: www.advantagenature.com

Contact : Rajiv Rai Sachdev, CMD

**Product Details:** ENLIVEN- 100% Herbal & Safe, comprehensive Hygiene Function (6 in 1) with Self Binding Technology for all kinds of Textile Products which truly is the most Sustainable, Disruptive, Internationally Patented, Green Technology for adding comprehensive Hygiene Function such as Anti-viral, Anti-microbial, Anti-fungal, Anti-odour, UV Resistant, Insects & Mosquito Repellent with Skin-fortifying properties in all kinds of Garments & Technical Textile Products, tested to perfection in Technical collaboration with IIT Delhi (Indian Institute of Technology, Delhi).

Company Profile: Advantage Organic Natural Technologies Private Limited (AONTPL) compliments "Atmanirbhar Bharat" vision of our Hon'ble PM Mr. Modi, we have developed truly the most Sustainable, Internationally Patented, Green Textiles Bio-processing and Dyeing Technology in technical collaboration with IIT Delhi, to produce Organic Herbal, Technical Textiles and Garments with comprehensive Hygiene, Skin Fortifying & Wellness properties using Modern Biotechnology Interventions and by Bio-engineering Natural/ Organic Herbal ingredients only, having minimal impact on the Mother Nature. The Company was incubated in the prestigious Indian Institute of Technology, Delhi and has also tie-up with Biotechnology Department of Himachal University at Shimla. AONTPL owns three Patents at USA, Europe & India and many more patents are pending.

Developed Enliven which truly is the most Sustainable, Disruptive Green Patented Technology for adding comprehensive Hygiene Function in all kinds of Garments & Technical Textile Products.

It is a decoction/ mixture of Neem, Tulsi & extracts of other healing herbs, 'Generally Recognized as Safe (GRAS- USFDA)', known for their Natural Skin-fortifying, Immunity Boosting and Anti-oxidant properties.



- Safest, non-toxic, 100% herbal/ organic/ natural with comprehensive hygiene & wellness function
- Scientifically proven to have excellent Antimicrobial, Anti-viral, Anti-odour, Anti-fungal, UV Resistant, Mosquito & Insects Repellent properties; tested as per International Testing Standards by reputed third party laboratories.
- Protects against skin problems in the most natural way
- Without disturbing the human skin flora, the healthy bacteria
- Maintains the ideal pH of the skin
- Enhances body's natural resistance & healing powers effortlessly
- Antioxidant properties of Enliven herbs- protects skin by limiting the free radicals which can damage skin cells
- Enliven- ultimate solution for 24x7 freshness & protection for all your Apparel & Textile Products
- Patented USA, Europe, India and many more patents in pipeline.

#### **Herbal Dyeing -** Unique with the Highly Desirable Features, on the Planet!

- Truly the most sustainable, Green, Cleantech, Dyeing & Processing Technology with immense value-additions offered, most comprehensive and best in the class; on the Planet
- 100% Herbal/ Natural/ Organic, NO chemical synthesis or bio-synthetic
- Strictly NO, to alkali/ caustic/ soda/ salts in the dye/ processing bath
- 100% Bio-renewable & Biodegradable ingredients, minimal Carbon Footprint
- Herbal Dye Ingredients- known for their Medicinal and Antioxidant properties, protects skin by limiting the free radicals which can damage skin cells
- We use only Forest/ Food/ Ayurveda industry waste/ residue without using any vegetable products meant for human consumption
- Products tested in reputed laboratories as per International Standards
- Compliments ZDHC- Zero Discharge of Hazardous Chemicals and a perfect example of Circular Economy in Textiles.



- Ethically made, safety of staff is of prime concern
- Women Empowerment- women centric jobs created from our business model
- Waste materials converted into innovative products, reaping profits for all stakeholders
- Generating immense employment opportunities for more than 3000 families in rural Himachal Pradesh and India

#### **Key Offerings:**

**Licensing:** Herbal Dyeing Technology as well as 100% Herbal Dyed fibres converted into Yarns & Fabrics with comprehensive Herbal Hygiene Function, made from all kinds of textiles such as Organic Cotton, Bamboo, Silk, Wool, Modal, Tencel, Viscose, 100% Recycled Polyester and their blends without any toxic or hazardous synthetic chemicals!

**Licensing:** Enliven 100% Herbal Product which truly is the most Sustainable, Disruptive, Internationally Patented Green Technology for adding comprehensive Hygiene Function such as Anti-microbial, Anti-viral, Anti-fungal, Anti-odour, UV Resistant, Insects & Mosquito Repellent with Skin-fortifying properties in all kinds of Garments & Technical Textile Products, tested as per International Testing Standards by reputed third party laboratories.

**Strategic Alliance/ Collaboration:** Launching globally - the most Luxuries & Premier Innerwear and Athleisure Wear Garments brands with comprehensive Hygiene and Wellness properties for safeguarding the most sensitive organs of a human body, the first of its kind, truly sustainable using our Internationally Patented Green Technology.

AONTPL has 'State of the Art' manufacturing infrastructure located in the lap of Mother Nature, amidst very green & serene pollution free environment, in the foothills of Himalayas at Sadhupul in Himachal Pradesh. AONTPL already has ISO: 9001:2015 & 14001:2015 compliance certifications and conforming to ZDHC - MRSL V2 (ZDHC - Zero Discharge of Hazardous Chemicals). AONTPL has installed world class setup using modern biotechnological interventions for extracting Herbal/ Vegetable Dyes and Enliven by Bio-engineering herbs with medicinal properties and Garments Dyeing & Processing setup for all kinds of Organic/ Herbal Garments & Textiles products using 100% Herbal Dyes & Natural Ingredients only, at Industrial Scale (Capacity up to 2.5 Tons per day).

AONTPL's Herbal Waste is be converted into Insects & Mosquito Repellent and



Air-purifying Incense Sticks, Moth Balls for protecting expensive garments, Herbal Urinals disinfectant Balls". Created a very innovative business model which will generate immense employment opportunities for the unemployed rural people from the nearby villages in the safe & easy environment of their own villages; we will create Self Help Groups and train them to convert this herbal waste into Incense Sticks, pack them and give us back, we will pay them the conversion charges.

The Innovative Business Model and Technical Textile products have excellent commercial viability, adding immense value to the Global Textile Industry and a perfect example of Circular Economy in Textiles, on the Planet!

#### **Achievements & Honors:**

- Awarded Indian Achievers Award 2020 in recognition of Outstanding Professional Achievement in Disruptive Green Technologies & Contribution in Nation Building
- Won Gold Medal & Prize of Rs. One Lakh, in DST- Lockheed Martin, India Innovation Growth Program 2012.
- Selected by AWEX (Wallonia Foreign Trade & Investment Agency), under their WalloniaTECH India Program 2012 for promoting innovative, sustainable technologies & products in Europe.
- Finalist at Parivartan Sustainability Leadership Awards 2011.
- Adjudged "The Green-tech Entrepreneur" and honored with "Achievers Excellence Award" amongst distinguished luminaries from around the Globe at NRI Global Summit 2010, in Dubai on 26th June 2010.
- Technical tie-up with IIT, Delhi in the year 2009 and his company formally got incubated in IIT, Delhi till 2012.
- Finalists in Anveshan- III (2005), CIIE-IIMA (Indian Institute of Management, Ahmadabad).



#### AROGYAM MEDISOFT SOLUTION

Unit 806, WorkNests, 8th Floor, Tower II, Plot DP5, Salt Lake Sector V, Kolkata 700091

**Tel** : +91 98303 35136

**Email** : rajiv.mondal@arogyammedisoft.com

Website: www.arogyammedisoft.com

**Contact**: Rajiv Mondal, Chief Executive Officer

**Product Details:** (a) HaemurEx, a lightweight blood & urine analyser, analyzes 25 parameters and transmits to remote health cloud. The device is being used in community practice & telemedicine set up.

(b) Soil Sathi, a lightweight soil and water analyser, analyzes 22 parameters and transmit to remote agriculture cloud. The device is of 200 gm of weight, provides fertiliser

**Company Profile:** Arogyam Medisoft isa lot focused digital solution start up with a mission to enable provisioning of quality & affordable solution for rural India in the area of agriculture and healthcare Arogyam has 2 flag ship products; Soil Sathi & HaemurEx. Arogyam customer includes rural NGOs in healthcare & agriculture, clinics and small & medium clinical establishment, diagnostic service providers, farming community, plantations, organic farming communities, public health & agricultural service providers, AI & analytics tech companies in healthcare & agriculture.



#### **ASHVA WEARABLE TECHNOLOGIES Private Limited**

2-2-82, G5, A/1, Sai Pragati Enclave, Turabnagar, Amberpet, Hyderabad, Telangana 500013

**Tel** : +91 9176697988

**Email** : anmol.ashva@gmail.com

Website: www.ashvaweartech.com

**Contact**: Anmol Ajay Saxena, CEO and Co-founder

**Product Details:** Fitknees - An intelligent wearable knee patch for joint preservation in knee osteoarthritis

**Company Profile:** Ashva Weartech is a startup focussed on solving the problems of skeletomuscular injuries through wearable sensors and data sciences.

We have developed a product called Fitknees.

Fitknees(R) comprises 4 wearable motion sensors that is worn on the thighs and shins of a chronic knee injury osteoarthritis patient and is connected to a Clinicians software via bluetooth. Through a series of exercises, osteoarthritis relevant joint biomechanics like knee range of motion, static and dynamic balance, gait analysis, functional mobility, ambulation and Daily Activities of Living are measured and encapsulated into Bloodtest alike Data reports called the Kneeports R. With help of the Kneeport R, physiotherapist can monitor the progress of these clinically relevant outcome measures for knee OA and fine tune their treatment plans for their patients. Furthermore, because of the data analysis report cards, our research suggests that patients stay more motivated and confident to adhere to their physiotherapy, thereby reducing the surgical referral rates for Total/ Partial knee replacement surgeries.



#### **ASPARTIKA BIOTECH Private Limited**

Technology incubation Center, Sir MVIT Campus, Hunsamaranahalli, Bangalore, Karnataka, Bangalore, India

**Tel** : +91-7795255727

**Email** : aspartika.india@gmail.com

Website: www.aspartika.com

**Contact**: Srinivas B.V, Director

#### **Product Details:**

**Human Sector:** For Nutraceutical and Cosmeceutical

- Omega 3 Fatty acid
- Herbal extracts
- Essential Olis
- Sanitizer
- Immune Booster Chapatti

#### **Animal Sector:**

- Poultry feed supplement
- Aqua Feed supplement

**Company Profile:** Aspartika Biotech is involved in supercritical fluid extraction of pharmaceutical grade extracts and involved in nutraceutical products viz.,

 Omega 3 fatty acids, phyto extracts, ayush recommended herbal extracts, herbal infusions, nutraceutical food like immunity booster chapati, millets chapati with a shelf life of 6 months.



- Biotechnology Product Development and Commercialization Award 2020 by DBT
- National Entrepreneurship Award 2019- Gol. (MoSDE).
- Top 10 Scale up Company Award by CNBC, FICCI and PwC.
- Immunity champion of the year Award 2020
- Emerging Star Award 2020 by Bangalore Chamber of Industry and Commerce
- Outstanding Entrepreneurship Award 2019 felicitated by the Principal Secretary to GoK at Vidhana Soudha.
- Smart Bio Award 2019 by GoK during the IndiaBio 2019
- Global Award by UNIDO under waste Beneficiation Category at Los Angels 2018.
- In-House R&D is recognized by DSIR
- Production unit is ISO Certified and GMP Compliant, FSSAI certified and AYUSH GMP Certified



#### **ASPIRE-BIONEST**

3rd Floor, School of Life Sciences, University of Hyderabad, Gachibowli, Hyderabad - 500046, Telangana, INDIA

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**Email** : sreedhara.voleti@uohyd.ac.in

**Website**: http://bionest.uohyd.ac.in/#/home

Contact : Dr. Sreedhara R. Voleti, CEO

ASPIRE-BioNEST at University of Hyderabad is a bio-incubator formed with almost equal partnership from UoH and BIRAC as a Plug-and Play Incubator Nurturing scaling Technologies in Life Sciences in the Area of Agriculture, Biotechnology, Healthcare, Information Technology, Pharmaceuticals ad Allied Areas.

The Mission of ASPIRE-BioNEST is to support Start-up Innovation in scaling Technologies, R&D and Products In Life Sciences. ASPIRE-BioNEST has a built-Up area around 20,000sft with 10,000sft as the incubation lab space. It also provides state-of-the-art instrumentation and common facilities. ASPIRE-BioNEST provides excellent knowledge-based scientific mentorship, advisory and associated technical and business related services including CA, CS & IP. It conduct seminars, lectures, workshops related to innovation and entrepreneurship bridging gaps between industry and academia.



## ATAL INCUBATION CENTRE - CENTRE FOR CELLULAR & MOLECULAR BIOLOGY

3rd Floor, CCMB Annex 2, Genpact Road, IDA Uppal, Hyderabad (TS) 500039

**Tel** : +91 9949973404 | 04027195630

**Email** : aic@ccmb.res.in

Website: http://aic.ccmb.res.in/index.php

Contact : Dr. N Madhusudhana Rao, CEO

**Product Details:** Incubation centre for life-sciences startups

**Company Profile:** The Atal Incubation Centre- Centre for Cellular & Molecular Biology (AIC-CCMB) is a premier technology business incubator supporting life- science startups. Established at CSIR-CCMB, Hyderabad under the Atal Innovation Mission of NITI Aayog, GoI in 2017, this incubation centre has become a hub for life-sciences and biotechnology startups and MSME's in a very short time.

Creating enterprises in life-sciences is an uphill task yet AIC-CCMB has successfully demonstrated that with the right infrastructure, support system and team, an incubation centre can play a pivotal role in helping startups to build stable foundations and grow into sustainable businesses. We are enabling the translation by encouraging and supporting researchers develop their technologies to market as an enterprise. Over the last year, AIC-CCMB has proved to be a go-to place for researchers and innovators to take their early stage ideas and leads to Proof of Concept stage (TRL 3 or 4).

AIC-CCMB has been actively working with its host institution, CSIR - Centre for Cellular & Molecular Biology to create a physical space for startups to work and creating a high impact ecosystem with policy makers, mentors, alumni, fund providers, experts, consultants and industry. Given the expertise and infrastructure already available with the host institution, and the support of AIM, we believe this centre can create impactful, high potential enterprises in the near future.

- Ranked #5 Top Biotech Incubators in India by BioSpectrum Magazine for the year 2019-2020
- Incubated 48 startups and innovators till date.



- Conducting high-powered immersion and entrepreneurship programs with other government agencies.
- Host to BIRAC's SPARSH centre for social innovation immersion program towards finding innovative solutions to society's most pressing social problems through Biotechnology interventions.
- Conducting the Technology Incubation and Development of Entrepreneurs(TIDE 2.0) under the by Ministry of Electronics and Information Technology(MeitY) to foster Innovations & support startups working with emerging technologies such as IoT, Robotics, Rapid prototyping, Data analytics, AI & ML in healthcare.
- Providing Seed Fund support under NIDHI SSS of NSTEDB of DST and TIDE 2.0 by Ministry of Electronics and Information Technology (MeitY) for technology based startups
- Provinding early-stage financial support through the Rs 5.25 crore grant under National Initiative for Developing and Harnessing Innovations -Seed Support System (NIDHI-SSS) by National Science & Technology Entrepreneurship Development Board (NSTEDB), Department of Science & Technology (DST), Gol.
- Supporting 8 startups and innovators through Accelerated Deployment to combat COVID-19.
- CCMB & AIC-CCMB with the support of Bill & Melinda Gates Foundation is offering
  its expertise to manufacturers of RT-qPCR diagnostic kits or its components in the
  areas like Up-scaling Production, quality assurance, validation studies as well as
  regulatory & IP Consultancy
- Partnerships with key stakeholders like National & International technology partners, policy makers & mentors
- Startups here won numerous awards and raised over Rs 3 crores through grants and other strategic investments

AIC-CCMB spans over two floors, with a cumulative of 20,000 sft of lab space, lab equipment, workstations, common spaces such as co-working spaces, conference room, video-conferencing facilities, meeting rooms and cafeteria for the startups. The centre provides modular Plug and Play Physical space (total space is more than 10000 sq. ft.), in flexible plans of 100, 150 and 300 sq. ft. The centre also has fully equipped cell culture rooms (Bacterial, Yeast & Mammalian), fermentation platform, autoclaving rooms, Chemical hoods, and other specialised facilities required for conducting high



end product development. More than three dozens of fully functional small and high-end equipment along with all utilities (water, electricity, wifi, intercom, conference room and video conference room) are included as a part of the incubation services.

Additionally, the startups at AIC-CCMB are exposed to monthly workshops/trainings, Startup gatherings through effective networking and handholding mechanisms. Regular mentoring and business tracking ensure that startups get the support needed in a timely manner.

AIC-CCMB is dedicated to vision of Atmanirbhar Bharat through translation of innovation by MSMEs. We believe in the adage 'begin right and you will finish right. It is our duty to serve the nation by creating profitable enterprises of the future, and we hope that we are fulfilling this mandate.



# **BAYSHORE INTELLIGENCE SOLUTIONS (INDIA) PRIVATE LIMITED**

Office No 402, 4th Floor, PS Srijan Corporate Park, Tower II, Plot G-2, Block GP, Saltlake, Sector V, Kolkata 700091 WB

**Tel** : +91-9527980344

**Email** : sourav.m@bayshoreintel.com

Website: bayshoreintel.com

Contact : Sourav Mukherjee, Lead Data Scientist

**Product Details:** One of the products that we have worked on is to predict a specific genetic change using data from non-invasive techniques using AI and predictive analysis

**Company Profile:** Bayshore Intelligence Solutions is A 360° Data Science application development company, spearheaded by techno-commercial thought leaders and visionaries, aided by an incredibly talented team, infusing innovation with technology to increase value proposition, and transforming business processes through Intelligent Automation.

Catering to the need of our global customers, we have developed end to end applications, powered by Machine Learning, Deep Learning, Computer Vision, Natural Language Processing (NLP) and other Data Science & Full Stack tools.

Team Bayshore Intelligence Solutions comprises of senior professionals from different domains along with a team of proficient techies, bringing in their experience and expertise to solve critical problem statements across industries and verticals, using the power of Artificial Intelligence.

Apart from our work in various domains, Bayshore Intelligence Solutions has also worked on a few of the challenging problems in the healthcare domain and have provided AI and Data Science based solution that not only help to spread it to mass but also providing new insights.



# **Bayshore's Culture**

At Bayshore Intelligence Solutions, we are a staunch believer of "Excellence over Mediocrity". Our core values comprise of "Customer Satisfaction", "Equal Employment Opportunity" and "Employee First" culture. For us, Diversity and Innovation goes hand in hand, and we strive to retain our core competencies at all level and at any cost. A near perfect mix of work-life balance provides us that extra cushion to accelerate in crunch times to overcome any obstacles, we may collide with. It's all about TEAMWORK, KNOWLEDGE & APPETITE FOR EXCELLENCE that sets us apart to stay ahead in the game.

# **Bayshore's Mission**

Bayshore Intelligence Solutions strives to deliver the best possible services and solutions to meet the requirement of customers across the globe. Besides amplifying the productivity of business houses, we go above and beyond to ensure 100% customer satisfaction. With our state-of-the-art technology solution, we ensure a significant elevation in customer's Return on Investment (ROI).

# **Bayshore's Vision**

Bayshore Intelligence Solutions envisions a future with exponential growth in revenue, using the power of Data Science. With our robust Artificial Intelligence based solutions, we intend to disrupt processes for the ultimate improvement and eliminate human intervention, so that businesses can engage their workforce into more productive work. Our end-to-end Data Science based solutions has the potential to change the way conventional application works, to commence the advent of a new era called "Automation".



#### **BHAT BIO-TECH INDIA PRIVATE LIMITED**

11-A, 4th Cross, Veerasandra Industrial Area, Electronics City Phase 2, Bengaluru 560 100, Karnataka

**Tel** : +91-9880191998 | 080-27848000

**Email** : debhatbiotech@gmail.com

**Website**: www.bhatbiotech.com

**Contact**: Pavan Kumar M, Director

#### **Product Details:**

- Diagnostic Kits & Reagents like Rapid Card Tests for HIV, HBsAg, HCV, Malaria, Dengue, Chikungunya Etc
- Covid 19 products like VTM, VLTM, RT-PCR and RNA Extraction kits
- ELISA Kits for infectious diseases like HIV, HBsAg, HCV, Dengue NS1
- Blood grouping kits etc

Company Profile: Bhat Bio-tech India (P) Limited is a 25 years old Diagnostic Kits and Reagents manufacturing company founded by Dr. Shama Bhat an internationally acclaimed scientist located in Bengaluru, India specialized in the design development, manufacture and marketing of diagnostic products and Biotechnology based products. Diagnostic test devices are for various types of tests like, Pregnancy, HIV, Hepatitis, Malaria, Dengue, Chikungunya, COVID, Syphilis, TB, Cardiac Markers, Dry Chemistry, Bio-Chemistry, Haematology & Immunology and ELISA`S used in the analysis of body fluids in human. In Life Science related products, we manufacture and market Genomics (DNA, RNA), Proteomics and Lab Instruments. Now, we would like to bring the molecular diagnostics to the point of care.

State of the art Molecular Diagnostic kits, reagents and instruments are being developed and marketed. PCR Machines and i- PCR, the real time machine in less than 20 minutes are our recent inventions and will be launched shortly. We offer contract manufacturing, third party labelling, and contract research. Our products are manufactured with International Standards. Also, we have ISO 9001, ISO 13485 certifications.



#### **BIODROID INNOVATIONS Private Limited**

H.No 155 WARD 5 SHANKAR NAGAR ,Poonch, Jammu, Jammu and Kashmir,India,185101

**Tel** : +91-9086155681 | +91-1965-220306

**Email** : biodorid@biodoridinnovations.com

Website: www.biodoridinnovations.com

**Contact**: Dr. Swarkar Sharma, Chief Scientific Advisor and Founder

**Product Details:** IP based products development and B2B and B2C products in various areas of biotechnology, Genomics, healthcare and agriculture.

**Company Profile:** Biodroid innovation is involved in carrying out research & development and do business in both in B2B and B2C mode. The company is working to provide development, manufacture and distribution services related to product development, analytical services, stability management, related to various fields of biotechnology. The company is engaged mainly but not restricted to Medical technology and Agricultural Technology. It is involved in developing and provide various services related to Genomics, Genetic Tools, Artificial Intelligence and Data processing in Medical and Agricultural technologies. It is also working to develop appropriate nursery, laboratory, Biobank, DNA bank, resources, processing plant etc. required for the development and testing of technologies and providing services in the above-mentioned domains.



#### **BIOMONETA RESEARCH Private Limited**

Evoma, Office # 110-D, 88 Borewell Road, Whitefield, Bengalore-560066

**Tel** : +91-9845523153

**Email**: janani@biomoneta.com

Website: www.biomoneta.com

**Contact**: Srividya Janani Venkatraman, Director

**Product Details:** ZeBox-mid, ZeBox-mini: plug and play devices to reduce microbial load in the environment

**Company Profile:** Biomoneta creates solutions for air and surface decontamination based on our proprietary ZeBox technology. ZeBox Technology powered devices use air as a carrier medium to extract microbes from air and nearby surfaces and use a proprietary kill mechanism to eliminate viruses, bacteria, fungi and spores with very high efficiency. The devices are capable of eradicating billions of microbes in less than 10 minutes under test conditions. Deployment of the ZeBox in controlled environments such as hospitals, homes, offices and others has the potential to arrest the spread of a range of infections (bacterial, fungal or viral), save lives and prevent pandemics.



#### **BIOTECH CONSORTIUM INDIA LIMITED**

5th Floor, Anuvrat Bhawan, 210, Deen Dayal Upadhyaya Marg

**TTel** : +91-9873067510 | +91-11-2321 9053

**Email** : sanchita@biotech.co.in

Website: www.biotech.co.in

**Contact**: Dr. Sanchita Chaudhary, Assistant General Manager

**Product Details:** Single window services expediting biotech commercialization:

Technology Transfer

• Management of Intellectual Property Rights

Consultancy

- Project Management
- Regulatory Services
- Human Resource and Entrepreneurship Development
- Information Services

**Company Profile:** Biotech Consortium India Limited (BCIL) is a public limited company, set up as an initiative of the Department of Biotechnology (DBT), Ministry of Science and Technology, Government of India by All India Financial Institutions including IDBI, ICICI, IFCI, UTI and IFCI Venture Capital Funds Limited.

It is a nodal agency for providing business support services to facilitate accelerated commercialization of biotech products and processes.

**Technical strengths:** Extensive expertise and experience in above areas of operations in all biotechnology areas viz. healthcare, agriculture, environment and process industry. BCIL leverages its in-depth understanding about technology, manufacturing process, regulatory requirements, markets, government incentives etc. for executing specialised consultancy projects, project management and effectively expedites transfer of technologies.



**Networking:** By virtue of its unique constitution, BCIL networks closely with all stakeholders viz. industry, academia, government, international organizations etc. and provides a platform for interaction on cross- sectoral topics. These linkages also facilitate collection of latest authentic information for professional execution of various assignments.

**Finance management skills:** BCIL has adequate skills and expertise in ensuring compliance with financial and accounting norms in project management. The company has well defined administrative procedures to manage funds as per the guidelines provided by the sponsors.

DBT-Biotechnology Industry Research Assistance Council (DBT-BIRAC), through the National Biopharma Mission has recognised BCIL as the Technology Transfer Office (TTO) for all the DBT autonomous institutes and DBT funded extramural projects. The objective of the TTO at BCIL is to enhance academia-industry linkages, strengthen the innovation ecosystem and provide increased opportunities for academia to translate knowledge into products and technologies.

In its three decades of excellence, BCIL has been actively involved in technology transfer, project consultancy, manpower training etc. and has assisted thousands of clients including scientists, technologists, research institutions, universities, national and international organizations, ministries /departments of central government, various state governments, banks and financial institutions.



# BIONEST AT CSIR- INDIAN INSTITUTE OF TOXICOLOGY RESEARCH (CSIR-IITR)

Vishvigyan Bhawan, 31, M. G. Marg, Lucknow-226001, U.P. (INDIA)

**Tel** : +91-7704994437 | +91-522-2217497 | Extension: 744

**Email** : partha.ram@iitr.res.in

**Website :** www.iitrindia.org/En/citar/

Contact : Dr. Parthasarathi Ramakrishnan, Principal Scientist and Incharge

Product Details: Lab scale Reactor for Bioremediation, Microbial disinfection solutions

**Company Profile:** In March 2020 CSIR-IITR has awarded with the funding support Department of Biotechnology (DBT) and it's Public Sector Undertaking, Biotechnology Industry Research Assistance Council (BIRAC) to establish BioNEST at its main campus in Lucknow.

This funding is awarded as first of its kind of support given to a CSIR institutions in India and also in the city of Lucknow for developing and promoting innovation and research translation efforts particularly focused on Biosafety/Toxicology aspects of

- Agri & Environmental biotechnologies
- Food & industrial biotechnologies
- Biopharma & Cosmetics
- MedTech & Diagnostics



#### **BIOCON LIMITED**

20th KM, Hosur Road, Electronic City, Bengaluru 560100

**Tel** : +91 80 2808 2808

**Email** : 91Contact.us@biocon.com

Website: www.biocon.com

**Contact**: Nagaraj B, DY Manager, Corporate Communications

Product Details: www.biocon.com/products

**Company Profile:** Biocon is a global biopharmaceutical company that is driven by the vision to make a difference to healthcare worldwide through improved access to high quality, life-saving biotherapeutics by making them affordable for patients.

#### **A Global Pioneer**

Our pioneering spirit paved the way for biotechnology in India, and we continue to apply the same spirit in finding novel approaches to improve patient outcomes today for a better tomorrow. This drives us to continuously find new ways to treat diabetes, cancer and autoimmune diseases. Our R&D focuses on prevention, alleviation and treatment and our medicines improve the lives of millions of patients in over 120 countries, by giving them access to life-saving therapies and relief.

Powered by advanced therapy platforms, our 12,000+ employees blend heart, science and creativity to make better healthcare solutions.

Our four global businesses include generics, biosimilars, research services and novel biologics. They represent Biocon's risk-balanced strategy, underpinned by agile network connections and a robust pipeline. We have leveraged India's value advantage of unmatched scientific talent and cost-competitive manufacturing to deliver scale, speed and quality. By making medicines more easily accessible for patients across the globe, we're working towards achieving health equity.

### **Generics Business**

Our Generics business has been a cornerstone of the Company's success story over the last two decades. Our global portfolio in Active Pharmaceutical Ingredients (APIs) caters to over 1,200 pharma companies in 100+ countries including the U.S, Europe and large emerging markets, with a track-record of excellence for over 20 years. We have



attained a commanding share of the global APIs market with our distinctive portfolio of fermentation-derived statins and immunosuppressants. We also have a strong Generic Formulations business, which is powered by our portfolio of complex and differentiated APIs. Forward integration into dosage forms fulfils our commitment to provide continuity of supply of affordable quality medicines to patients across geographies. We have multiple programs to build a robust pipeline of technology-intensive molecules for global markets. Biocon has successfully commercialised a few formulations under its own label in the U.S. and is gradually expanding its reach to other geographies as well.

#### **Biosimilars Business**

Biocon Biologics Limited, a subsidiary of Biocon Limited is uniquely positioned as a fully integrated 'pure play' biosimilars organization in the world. Building on the four pillars of Patients, People, Partners and Business, Biocon Biologics is committed to transforming healthcare and transforming lives. Biocon Biologics is leveraging cutting-edge science, innovative tech platforms and advanced research & development capabilities to lower treatment costs while improving healthcare outcomes. It has a platform of 28 biosimilar molecules across diabetes, oncology, immunology, dermatology, ophthalmology, neurology, rheumatology and inflammatory diseases. Five molecules from Biocon Biologics' portfolio have been taken from lab to market, of which three have been commercialized in developed markets like United States, EU, Australia, Canada and Japan. With a team of over 4,800 people Biocon Biologics aspires to transform healthcare through affordable innovative solutions as well as impact 5 million patients' lives by FY 22.

# **Research Services Business**

Our research services subsidiary Syngene International Limited. is an integrated research, development and manufacturing services company serving the global pharmaceutical, biotechnology, nutrition, animal health, consumer goods and specialty chemical sectors. Syngene's 4200 scientists offer both skills and the capacity to deliver great science, robust data management and IP security and quality manufacturing at speed, to improve time-to-market and lower the cost of innovation. With a combination of dedicated research facilities for Amgen, Baxter, Bristol-Myers Squibb and Herbalife, as well as 1.9 Mn sq ft of specialist discovery, development and manufacturing facilities, Syngene works with biotech companies pursuing leading-edge science as well as multinationals, including GSK and Merck KGaA.



#### **Novel Molecules Business**

Our novel assets under development combine early and advanced stage programs. We are the pioneers in developing, manufacturing and launching BIOMAb-EGFR® (Nimotuzumab), India's first indigenously produced novel monoclonal antibody for the treatment of head and neck cancer; and ALZUMAb™ (Itolizumab), the world's first novel anti-CD6 monoclonal antibody in India, for psoriasis. Our current novels portfolio includes Insulin Tregopil, which is a first-in-class oral prandial insulin molecule for post-prandial glycaemic control. In addition to monoclonal antibodies (mAbs) against targets like CD6 and EGFR, we are also developing a mAb against CD20. We also have a pipeline of bispecific fusion antibodies that exploit the recent understanding of the role of checkpoint inhibitors.

#### **Global Scale**

To fulfil our mission of making a difference to global healthcare we have made sizable capital intensive investments in research and manufacturing infrastructure to deliver economies of scale. Over the last decade, Biocon has built India's largest bio-manufacturing facilities in Bengaluru and Asia's largest insulins manufacturing complex in Malaysia. We have also invested in creating one of the largest fermentation based bulk drug capacities for Statins and Immunosuppressants globally. These investments have and will enable us to have a significant global footprint to serve patient needs.

#### **Commitment to Quality**

We have established robust regulatory and quality systems to develop and deliver complex therapeutics. Our state-of-the-art manufacturing facilities are designed to conform to the most stringent cGMP guidelines, comply with international regulatory standards and meet client requirements worldwide. We are ever vigilant on quality and compliance through continuous improvement and regularly evaluate our quality systems and manufacturing operations in order to be on par with global best practices.



#### **BIOCON BIOLOGICS LIMITED**

20th Km, Hosur Road, Electronic City, Bengaluru 560100

**Tel** : +91-9818486654 | +91 80 2808 2808

**Email** : Contact.us@biocon.com

Website: www.biocon.com

**Contact**: Ganesan K, Associate Manager, Corporate Communications

**Product Details:** www.biocon.com/products

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#### **Commitment to Quality**

We have established robust regulatory and quality systems to develop and deliver complex therapeutics. Our state-of-the-art manufacturing facilities are designed to conform to the most stringent cGMP guidelines, comply with international regulatory standards and meet client requirements worldwide. We are ever vigilant on quality and compliance through continuous improvement and regularly evaluate our quality systems and manufacturing operations in order to be on par with global best practices.



# **BIOPHARMA INCUBATION CENTER AT NIPER-A**

Opp. Air force Station Palaj, Gandhinagar, Gujarat - 382355

**Tel** : +91-9974078600 | 079-66745555

**Email**: Javid.shaikh@niperahm.ac.in

**Website**: www.niperahm.ac.in

Contact : Javid Shaikh, Chief Executive Officer

**Product Details:** Co-working Spaces, Shared Laboratory, Common Instrumentation Facility, Animal House Facility, Medical Device Lab, Mentoring, Hand-holding, etc.

**Company Profile:** Biopharma Incubation Center at National Institute for Pharmaceutical Education and Research (NIPER) - Ahmedabad is a Technology Business Incubator supported by BioNEST scheme of Biotechnology Industry Research Council (BIRAC), DBT, Government of India to facilitate Startups.

Biopharma Incubation Center is an initiative of at NIPER-Ahmedabad to foster innovation and to build a good startup ecosystem. The Biopharma incubation Center is Technology Business Incubator is spread across 5000 sq. ft. and is dedicated to startups in the field of Biopharma, Biotechnology and Medical Devices with a Shared Office space and Laboratory space. It also provides facilities of NIPER-Ahmedabad such as Common Instrumentation Facilities, Animal House Facility, Medical Device Lab, Conference Room, Auditorium, Library and Other Resources.

Biopharma Incubation Center at NIPER-A also helps innovators to refine their idea, help them connect with the right technical mentors and business mentors, help writing grant proposals for funding, mentoring on legal compliance and regulatory compliances in terms of Mentoring & Hand-holding.



### **CARENOW MEDICAL Private Limited**

#3/272-5, Neelambur Rd, Muthugoundenpudur, Coimbatore-641402, TN

**Tel** : +91-956697399 | 0422 2988949

**Email** : anand@carenowindia.com

Website: www.carenowindia.com

**Contact**: Anand Venkat, Managing Director

Product Details: Theruptor Sterile Barrier Wound dressing

**Company Profile:** CareNow Medical Private Limited is an innovator and manufacturer of Persistent Anti-microbial products for Infection Control. We specialize in consumables for Patient Infection Control, Operating Theatre Infection prevention products and Hospital Disinfection Consumables.

We have developed a novel anti-microbial technology that can be applied on products of Wound Dressing, Surgical Gloves and Catheters to help reduce infections. The technology is Non-toxic and Non-leaching. It works on the principle of having cationic sites that inhibit the growth of micro-organisms. The technology is effective against resistant strains of MRSA.

We have successfully commercialized the technology on Hospital Textiles, Surgical Gloves and Surgical Masks. We have also made the technology available on our wound dressing product and have recently got the approval from Regulatory body.

Theruptor Sterile Barrier Wound Dressing is intended for use on minor wounds, surgical wounds, ulcers such as diabetic, foot and venous as well as for Infected wounds.

Theruptor Dressing combines the functionality of a foam, hydrogel and Anti-microbial dressing to provide excellent moisture management, exudate management and infection reduction with its unique 3-Dimensional substrate and anti-microbial functionality.

Our other products include anti-microbial Oral Hygiene, Patient Bathing Wipes, Incision Cleansing Swabs/Wipes, Advanced Wound Dressing, Hand Hygiene solutions, Surface Disinfection Wipes, Self Disinfecting Textiles including Protective Sheets, AIRMASK,



Reusable Sanitary pads and others that help improve hygiene and prevent infections.

Our team consists of highly talented staff including pharmacists, chemists, chemical engineers, textile engineers, medical device industry veterans, technicians and skilled labor for the manufacturing and testing of our products.

CareNow is a registered unit under India Drug & Cosmetics body. We are a member exporter of Pharma Export Council of India and are an active exporter of our products to North America, South America, Europe, Africa and Asian countries.

For more information on our products, please visit www.carenowindia.com



#### CENTRE FOR CELLULAR AND MOLECULAR PLATFORMS

UAS-GKVK campus, Bellary Road, Bengaluru-65

**Tel** : 0-8073182035 | 080-6718 5055

**Email** : ashwithak@ccamp.res.in

Website: www.ccamp.res.in

**Contact**: Arvind Ramanathan, Head Research

Company Profile: The Centre for Cellular and Molecular Platforms, or C-CAMP an initiative supported by Department of Biotechnology, Govt of India is an enabler or catalyst of cutting-edge research and innovation in the life sciences since 2009. C-CAMP is also a member of the Bangalore Life Science Cluster (BLiSC). We facilitate Bioscience Research and Entrepreneurship by providing Research, Development, Training and Services in state-of-the-art Technology Platforms. As a part C-CAMP's mandate of promoting entrepreneurship and innovation, C-CAMP has created and fostered an entrepreneur-friendly culture in and around Academic/Research environment through its involvement in Seed Funding Schemes for Startups, Entrepreneur Mentorship program and Bio-Incubation facility.

At C-CAMP, we have established State-Of-The-Art Platform Technologies which are essential requirements for success and leadership in the field of Life Sciences. C-CAMP allows investigators to use techniques as tools and not be limited by technological barriers while pursuing challenging scientific questions.

innovations for societal impact.

Our mission is to enable high-end scientific research and foster deep science innovations for societal impact. To do this, we: Create, develop, and establish high-end technology platforms and make them available and accessible along with relevant training and expertise to researchers across India. Build a thriving, entrepreneur-friendly ecosystem to stimulate deep science innovation and entrepreneurship in the life sciences in India.

C-CAMP has an eminent panel of mentors to aid budding entrepreneurs and start-ups to navigate the difficult seas of commercial business. We have industry veterans, domain experts, and successful entrepreneurs who help guide and develop young start-ups into successful businesses. Our 18-month long mentorship program allows



mentors to share their expertise, experience, and knowledge, to help solve the mentees' start-up-related issues. Mentors also help in setting goals, plans to achieve such goals, and provide mentees with introductions to other experts from the mentors' personal networks. The program also includes a series of workshops, boot camps, and networking opportunities to help entrepreneurs develop and hone their skills at making good business decisions.

C-CAMP, as an institution, is constantly growing as we continue to connect and form networks between academic and industrial researchers, innovators, and thought leaders. We will continue to develop and maintain an agile yet resilient ecosystem that nurtures innovation in the healthcare and life sciences industry. With exciting research breakthroughs on the horizon, C-CAMP's role as an enabler of science-based start-ups becomes even more significant. While we hope to forge new partnerships and widen our capabilities in the future, we also look forward to strengthening our existent ties with academics, industrialists, and funding agencies.



# **CRESCENT INNOVATION & INCUBATION COUNCIL (CIIC)**

BS Abdur Rahman Crescent Institute of Science & Technology, Seethakathi Estate, GST Road, Vandalur - 600048

**Tel** : +91-9551076617 | 044 - 22759200

**Email** : ceociic@crescent.education

**Website**: http://ciic.ventures

**Contact**: M. Parvez Alam, CEO & Director

#### **Product Details:**

CIIC Life Science Start-ups - Product Details

#### **Start-up Name**

We Got Utility Solutions Private Limited

Farmagain Agro Private Limited

Kankyo Cleantech India Private Limited

Greenflora Bio Sciences Private Limited

Agrit Greenhouse Solutions Private Limited

# **Products and technologies**

Water Saving & identification water loss and management Saves water utilization thereby curbing fast depletion of water table level

#### **Precise Agriculture**

Saving water and replenish soil fertility

# Waste management in all sectors of industries

waste destruction as per Tamilnadu pollution control board.

Giving technological solutions for waste management for cleaner air, water, land

### Health conscious.

Patent rice variant for diabetic pool

# **Developing Polyhouse for precision agriculture**

Supports farming even in minimal available land thereby providing food for all and not beinf over-dependent on the climate



Bigphi Technologies **Nanofiber Textiles** Nanoparticle embedded textile material for odorless. wrinkle free and anti-stain property. Very convenient material to office goers, industry staff etc. Ravikas **Social Entrepreneur** Empowering women health and wealth. Impensus Electronics **Post-harvest Technology** Giving solutions to cold storage chains for increasing the longetivity of fruits/ vegetables without the inflence of the chemicals VeinFinder- Medical Devices Rekindle Automations Private Limited Reduces manual error during blood venipuncture saves lives and reduces nurse manual burden Onium Life Sciences Private Limited **Drug discovery**Developing generic drugs thereby supporting the society with affordable medicines Kardle Industries **NexGen Bioreactor** Developing a next generation bioreactor thereby reducing the capex for R&D and Bio Manufacturing Dhanvantri Medicals **Automated bed** Reducing the dependency of a full-time nurse to bedridden patients in hospitals generating independence to geriatric Simha biotech Private Limited **Immune booster Herbal Drink** Developing a herbal drink for healthy balanced life. Fatigue and lifestyle disorders will diminish thereby increasing the happiness quotient of one life OMG labs **Nutraceuticals** They provide food supplement with

natura protein isolates. Thereby

increasing the quality of the food taken



Shrimp Hoard

Cell2Cure Therapies Private Limited Theray for diabetics patients lifetime solution for diabetics prone patients and thereby helping to lead a better happy life

#### **Shrimp Aquaculture**

increase the productivity yielding high quality aquatic creatures (shrimps) and automating the pond management system based on our prediction algorithm solving the problem of ineffective human resources and also minimizes power consumption.

Company Profile: Crescent Innovation Incubation Council (CIIC) is established as a Section-8 not-for Profit Company under the ambit of BSA Crescent Institute of Science and Technology and acts as a one-stop shop- Technology Business Incubator (TBI). CIIC Bionest is funded by BIRAC with a grant amount of Rs. 1.8 Crores for setting up Life -Sciences state-of-the-art lab comprising equipment for microbiology and molecular biology. CIIC has profoundly implemented and follows the National Innovation Start-up Policy put forth by the Ministry of Education and has obtained the BAND A (6th-25th) rank in ARIIA (ATAL ranking of Institutions on Innovation Achievements) in the category of "University & Deemed to be University" (Private/Self-financed) and has received 5-STAR ranking in Institutions Innovation Council (IIC).

Within a year's progress CIIC has incubated 34 Life Science startups, where founders are Crescent students, faculty members, alumni and startups from external. These start-ups provide solutions for Agri-Tech, Med -Tech, Bio-Industrial, Bio-Pharma, Bio-Energy and Bio-Services. CIIC Start-ups have devised 22 frugal solutions to the local community to fight against COVID-19 battle during lock-down. Two of our life sciences start-ups have received BIG grant of 50 Lakhs each and a grant from ICMR of Rs. 150 Lakhs. CIIC is the first incubator in Tamil Nadu to receive the highest number of Innovation Voucher Programs grants offered by Entrepreneurship Development Institute of India- Tamil Nadu.

CIIC provides a launching platform for the start-ups to display their products within the facility in various capacities. Impensus Electronics Private Limited (A startup incubated in CIIC) installed a pilot unit of "Controlled Environment Mushroom Cultivation" in CIIC integrating different sensors, humidifiers, ventilation dampers, refrigeration systems to provide an automated mushroom cultivation system. Agrit Greenhouse Solutions



Private Limited (A startup incubated in CIIC) which specializes in Construction of polyhouse/shade-house/trellis/irrigation system etc. has installed a polyhouse facility in CIIC. Farmagain Agro Private Limited (A startup incubated in CIIC) setup its GroTron TM, which is an automated irrigation and fertigation system employing different sensors through an IoT setup. WeGOT Utility Solutions Private Limited. (A startup incubated in CIIC) installed a pilot unit of their "Wisdom Water Management System" in the Centre for Research in Precision Agriculture and Rural Technologies at CIIC. Kankyo Cleantech Private Limited installed a state-of-the-art facility in biowaste management within Crescent University campus 500kg biogas plant supported by DBT funding and CLRI, a co-digestor was commissioned for vegetables wastes and food wastes.

CIIC provides an office space and connect with investors from the industry by way of smart capital. We have partnered with leading social entrepreneurship organisations like the Wadhwani foundation; Social Alpha, funded by Tata Trusts and Govt of India and many more of similar nature. In addition, we have also collaborated with associations like CII, Ministry of Education, under government of India's 'Innovation cell', Tie Chennai, Start-up India, etc. We also have a huge pool of mentors who have embarked on similar journeys. CIIC has also tied up with several international associations from Europe and Middle East.

With respect to scaling up and growth via technology, CIIC incubates can avail several lakhs worth of products necessary for a company to streamline their operations and market them.



# **CROSSLINKS FOUNDATION**

Flat 101, SBI Colony, Kesora, Bhubaneshwar

**Tel** : +91-8249022270

**Email** : crosslinksfoundation@gmail.com

Website: www.crosslinksfoundation.org

**Contact**: Soumyaprakash Das, State Head (Odisha)

Product Details: StrawBot and FarmScan

**Company Profile:** Founded in 2014, Crosslinks Foundation is an innovative charity organization from India with a focus on rural livelihoods, agriculture and climate change. Crosslinks' mission is to develop sustainable, inclusive and scalable solutions for inter-disciplinary social sector challenges by harnessing the power of digital technologies. Over the last five years, the organization has successfully completed large-scale rural development projects across 400 villages in India with grant support from USAID and DFID (U.K). Crosslinks is the winner of an unrestricted research gift from Facebook for its digital agriculture initiative under their Computer Vision for Global Challenges program (CV4GC).



# **CUTTING EDGE MEDICAL DEVICES Private Limited**

E - 2406, Sudama Nagar, Indore, 452009

**Tel** : +91-9873275305 | 9827531988

**Email** : drpankajparashar@gmail.com; pankaj@cemd.in

Website: www.cemd.in

**Contact**: Dr. Pankaj Parashar, Founder & CEO

**Company Profile:** We are a med-tech start-up company democratising healthcare by offering smart accurate yet affordable point of care diagnostic devices also capable of generating high quality data for Artificial Intelligence enabled cloud based predictive healthcare services.

We already have a device - SCINTIGLO, in the market after all the required quality and regulatory approvals. SCINTIGLO is a smart point of care diagnostic device for early detection of kidney diseases in patients with diabetes and hypertension and also identify high risk pregnancies early helping in having a better outcome.

The product SCINTIGLO was launched at the prestigious Global Bio India 2019, by the honourable Secretary DBT, Prof. Swarup.

The product solves the basic problem of early detection of kidney diseases improperly addressed till date. The opportunities are immense as NCDs are a major concern for Public and private healthcare providers. Now the people are getting more and more aware of the healthcare needs and are getting preventive diagnostics. The Diagnostic test offered by us opens up a gateway for all the new diagnostics and therapeutics for patients and doctors. There are around 35 Crore patient vulnerable to kidney damage in India and need this test. But due to the improper solutions available the problem gets escalated. We offer an indigenous product for our and the global problems of early detection of kidney damage by a simple urine test with a lab like accuracy at door-steps



#### **CYTIVA**

Hyclone Life Sciences Solutions India Private Limited, C/O John F. Welch Technology Center, Galileo, Galileo Building, Plot No. 122, EPIP Phase II, Hoodi Village, Whitefield, Bengaluru - 560066

**Email** : supportdesk.india@cytiva.com

Website: www.cytiva.com

**Contact**: Raghavendra Goud Vaggu, General Manager, South Asia

**Product Details:** Chromatography, bioprocess filtration, cell culture and fermentation, cell imaging & analysis, cell therapy, laboratory filtration, molecular biology, protein analysis,

Company Profile: Cytiva is a global provider of technologies and services that advance and accelerate the development and manufacture of therapeutics. Formerly part of GE Healthcare Life Sciences, we have a rich heritage tracing back hundreds of years, and a fresh beginning since 2020.

Cytiva is a global leader with top tier brands that provides technologies and services that advance and accelerate the development of therapeutics. With over 100,000 systems in use globally and 75% of FDA-approved biotherapeutics manufactured using our technologies, our market-leading brands, such as ÄKTA™, Amersham™, Biacore™, FlexFactory™, HyClone™, KUBio™, MabSelect™, Whatman™, Xcellerex™, and Xuri™ to name a few, are helping customers advance and accelerate therapeutics.

We are a trusted collaborator for both academia and industry and continually partner with customers to understand their needs and challenges, and helps them realize efficiencies in their research and manufacturing workflows. Cytiva supports customers at every stage of biomanufacturing, from clinical trials to commercial manufacturing. We also work closely with the industry leaders, including Pfizer, Lonza and Beigene, to establish the off-the-shelf KUBio factories in half the time it would take to build a traditional biomanufacturing facility.

Futurescope: Our vision is a world in which access to life-changing therapies transforms human health. We realize our vision through keeping to push the boundary of our daily mission is to advance and accelerate therapeutics.



#### DEPARTMENT OF BIOTECHNOLOGY

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Website: www.ils.res.in

**Contact**: DBT-Institute of Life Sciences, DBT Autonomous Institute

**Company Profile:** Institute of Life Sciences (ILS) was established in the year 1989 as an autonomous institute under the administrative control of Govt. of Odisha. In 2002, it was taken over by the Department of Biotechnology, Govt. of India. Over the years, ILS has grown in strength in research and development efforts in the area of Cancer Biology, Infectious Disease and Plants and Environment Biotechnology. Institute of Life sciences has a broad vision of carrying out high-quality multidisciplinary research in the area of life sciences. The mission of the institution is to work towards upliftment of the human society and generate skilled human resources for future India. Institute of Life Sciences, Bhubaneswar, with its proven expertise is a member of various research consortiums, established to mitigate the global health crisis through diagnostics, vaccines, novel therapeutics, repurposing of drugs or any other intervention.



# ENTREPRENEURSHIP DEVELOPMENT CENTER (VENTURE CENTER)

100, NCL Innovation Park, Dr. Homi Bhabha Road, Pune - 411008

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**Email**: yashodhan@venturecenter.co.in

Website: www.venturecenter.co.in

**Contact**: Yashodhan Shende, Executive - Business Development

Company Profile: The Venture Center is India's largest science business incubator.

The Venture Center is a technology business incubator specializing in technology startups offering products and services exploiting scientific expertise in the areas of materials, chemicals and biological sciences & engineering. Venture Center strives to nucleate and nurture technology and knowledge-based enterprises by leveraging the scientific and engineering competencies of the institutions in the "Pune region" in India. The Venture Center aims to empower and enable scientists and engineers in pursuing technology, innovation and entrepreneurship objectives.



#### **FASTSENSE DIAGNOSTICS Private Limited**

ML-8, NCL Innovation Park, Dr. Homi Bhabha Road, Pashan. Pune-411008

**Tel** : +91-7558368126 | 7558368126

**Email**: preetijoshi@fastsensediagnostics.com

Website: www.fastsensediagnostics.com

Contact: Dr. Preeti Nigam Joshi, Founder & CEO

**Product Details:** We are working on platform technologies for detection of a variety of analytes not limited to cancer, neonatal sepsis, covid-19, STDs and women centric problems. Our sensing technologies ranges from electrochemical to molecular diagnostics.

**Company Profile:** FastSense is a technology driven company, committed to the development of innovative products for affordable disease diagnosis and detection (especially for complex disease like cancer) and commercialization of these products.

# **Company Vision & Mission**

Our business has a primary focus on affordable and preventive healthcare; both these factors are huge need of hour for developing world and especially in India. The huge population in India is out of any healthcare net and if India needs to be developing at rapid speed it has to have indigenous initiatives to bring low cost quality healthcare and preventive framework.

The on-chip technologies and sensor systems we are developing has the potential to successfully manufacture high tech systems in India that contributes to 'Make in India' and 'Industry 4.0' initiatives. Every country has its own set of problems and specific approaches are needed to tackle them. We at FastSense Diagnostics with our healthcare solutions are dedicated to contribute in new era of inclusive growth where indigenous problems have to be solved with indigenous technologies that could be scaled up to the next level globally. This has potential to cater to a huge market that may run in billions of dollars and at the same time create jobs for resources of different skill set.

Healthcare is a booming sector in India and being a much-diversified country with large population, we have a different set of problems related with healthcare. As an innovation driven start up, our focus is to work for "Affordable Healthcare for All". We are targeting rural or resource poor regions where medical facilities are not there and as another important aspect of our device, data about the disease onset, correlations, and treatment efficacy can also be collected.

We are a social enterprise involved in health awareness in rural areas and job creation. We at FastSense Diagnostics want to grow into a company that brings a holistic perspective to healthcare in Indian and other developing countries



#### FOUNDATION FOR INNOVATION AND TECHNOLOGY TRANSFER

Indian Institute of Technology Delhi

**Tel** : +91 - 9718877312 | 011-26597116 **Email** : Ashutosh.pastor@fitt.iitd.ac.in

Website: Fitt-iitd.in

**Contact**: Dr. Ashutosh Pastor, Manager-Incubation

Company Profile: IIT Delhi created the Foundation for Innovation & Technology Transfer (FITT) as a special purpose vehicle to facilitate, inter alia, research translation, technology development, technology transfer & commercialization, industry engagement, project management, startup incubation & mentoring, etc. FITT commenced its mission in 1992 with seed support from the Ministry of Human Resource & Development (MHRD). As one of the pioneering academic institution-based technology transfer offices and startup incubators in the country, FITT has strong Intellectual Property expertise (~1000 patents), Technology Transfer expertise (>170 Tech transfers and IP assignments), Industry Consultancy (>2000 consultancy projects) and startup incubator management experience (~125 startups incubated with a high success rate). The organization has supported more than 250 startups and entrepreneurs through various other funding and mentoring schemes.

FITT is supporting startup incubation at IIT Delhi since 1999 through the following facilities:

- Technology Business Incubation Unit (TBIU) FITT operates the TBIU on campus for enabling technology-based ventures. The TBIU program is backed by appropriate policy instruments that facilitate the faculty scientists/students / alumni-led business propositions to incubate through research and development effort - pivoting on technologies that have direct homology with the Institute. This program was launched in 1999 and sustained ever since from its internal accruals.
- Biotechnology Business Incubation Facility (BBIF) The BBIF has been in operation since 2014. It provides incubation support to biotech startups, enables access to specialized equipment, and also provides experimental facilities, IP guidance, market linkages, etc.
- Atal Incubation Centre (AIC) IIT Delhi, Sonipat is a planned and managed facility with a focus on research, innovation, and product development where IIT Delhi, Industry, and government agencies collaborate to create advanced technological solutions. The AIC has been operational since 2018.



 Science Parks - With the establishment of a Science Park at its extension campus at Sonipat, Haryana, and a Research & Innovation Park having advanced incubation facilities at the main campus, IIT Delhi is creating world-class infrastructure with facilities for design and development of advanced technologies. The facilities are being supplemented by shared resources such as technical and commercial service providers, utility services, restaurants, banks, convention centers, parking, security, reception, internal transportation, recreation, and sports facilities.

Besides its sustainable operations, FITT supports various incubators in the region to develop operational mechanisms and policies for startups. FITT is a leading incubator in the country's Northern region and facilitates the National Biopharma Mission's Innovation Technology Transfer regional office (iTTO).

FITT is a nodal agency for various government and Industry funded programs for startups and hence brings in the extensive experience of startup incubation and program management. Some of the government-funded programs implemented through FITT currently are DST's NIDHI SEED support scheme (up to 1 Cr. per startup), MSME's Support for Entrepreneurial and Managerial Development of SMEs through Incubators (15 Lakhs per startup), BIRAC's BIG scheme (up to 50 Lakhs per startup), SEED (up to 30 Lakhs per startup) and LEAP (up to 1Cr. per startup), MCIT's TIDE 2.0 program, etc. The Pfizer-IIT Delhi Innovation and IP program exemplifies a unique funding-cum-incubation support program with industry partnerships and supports startups with up to 60 lakh funding. FITT has also partnered with Sona Comstar for a Clean mobility program for startups with financing up to INR 80 Lakhs per startup. Samsung Solve for Tomorrow's India version is also launching in partnership with FITT.



# GENETICO RESEARCH DIAGNOSTICS PRIVATE LIMITED

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**Email** : Arjun@genetico.in

Website: www.genetico.in

**Contact**: Arjun Gupta, Founder & CEO

**Product Details:** Specialised cloud-based Electronic Health Record (EHR) system enabled with decision support system for Clinical Genetics and research. Key modules include graphical pedigree editor, deep phenotyping based on structured nomenclature, collaboration tools, decision support system and user access right controls. Single and multi-user accounts available on cloud and local servers.

**Company Profile:** Genetico aims to reduce time to diagnosis and enable new medical discoveries in the field of rare and genetic diseases. To this end, it is developing suite of AI enabled software for medical geneticists, genetic counsellors, clinics, diagnostic labs and hospitals to efficiently manage workflows between various stakeholders. First product is being commercially released in March 2021. Start-up is supported by BIRAC grant (BIG), JKEDI grant and investments from IIT Mandi along with private investors (currently raising). It is incubated at top technology schools such as IIT Mandi and IIIT Delhi.



# GENNOVA BIOPHARMACEUTICALS LIMITED, PUNE

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**Email** : ankita.bhargava@gennova.co.in

Website: www.gennova.bio

**Contact**: Ankita Bhargava, Programme Coordinator

**Company Profile:** Gennova Biopharmaceuticals Limited., headquartered in Pune, India, is a biotechnology company dedicated to developing, producing, and commercializing biotherapeutics to address life-threatening diseases across various indications.

Gennova is transforming healthcare by creating efficient and effective solutions for manufacturing and successfully commercializing bio-therapeutics across cardiovascular, neurology, nephrology, and oncology segments. Incorporating recombinant DNA technologies and innovative bio-manufacturing practices The company manufactures its recombinant products using bacterial, yeast, and mammalian-based expression platforms and has developed deep expertise in perfusion-based continuous manufacturing technologies. To date, Gennova has commercialized seven products; 5 biosimilars, one generic, and one pioneering – 'first in the world' product.

To boost the next-generation manufacturing technologies for bio-therapeutics production and the development of parallel innovating tools to reach patients, Gennova strives to improve and innovate continuously to respond effectively to healthcare challenges.

Innovation is central to Gennova's continued success. This innovation comes from both its internal attributes, capabilities, external collaborations and synergistic partnerships.

The state-of-the-art facilities, R & D capabilities, and knowledgebase development have empowered Gennova to take a product from bench to bedside/gene to market. Gennova has a team of experienced and capable scientists and technocrats who have developed capabilities across scientific, manufacturing, regulatory, clinical, and business arenas that have made it successful in the Indian market.

Through innovation-driven bio-manufacturing, Gennova became the first biotechnology company in India to launch the biosimilar of the third-generation



thrombolytic protein, Tenecteplase, addressing the unmet need in cardiovascular diseases. Carrying on with its innovation to transform healthcare, Gennova launched Tenectase®, a pioneering work, where first time globally, a third-generation thrombolytic was approved for the indication of Acute Ischemic Stroke (AIS).

This innovation was recognized by the Department of Biotechnology (DBT), Govt. of India for the 'Biotech product, process development and commercialization award 2019'. Additionally, this 'Make in India' product has found its way in the list of drugs for emergency care for stroke management in the guideline – 'Prevention and Management of Stroke,' issued by the Ministry of Health and Family Welfare, Govt. of India.

Gennova's innovation around high cell density fermentation and genetic manipulations for its microbial products have successfully culminated in the development and commercialization of filgrastim and its long-lasting pegylated version PEG-filgrastim. Continuing its efforts on innovative pegylation processes, Gennova was the first Indian company to develop generic pegaspargase, HAMSYL®, and launch it in 2014 for use in acute lymphoblastic lymphoma (ALL), an orphan indication at the request of the Tata Memorial Hospital, Mumbai, India.

Gennova's socio-economic responsibility has propelled it to establish itself it Global Health Initiative program, under which Gennova has established itself as a preferred research and cGMP manufacturing partner in the area of vaccine development to address some of the world's most challenging diseases, particularly for the developing world like malaria, Leishmania, flu etc.

Gennova's socio-economic responsibility has propelled it to set up the Global Health Initiative program, under which Gennova has established itself as a preferred research and cGMP manufacturing partner in the area of vaccines. Gennova's vaccine development initiative addresses four endemic diseases - malaria, tuberculosis, leishmaniasis, and flu. In this field, Gennova has national and international collaborations, e.g., University of Delhi South Campus (UDSC), PATH Malaria Vaccine Initiative (MVI), European Commission (under FP7 and Horizon 2020), Infectious Disease Research Institute (IDRI), National Institutes of Health (NIH), Johns Hopkins University (JHU), The London School of Hygiene & Tropical Medicine (LSHTM) and The Walter and Eliza Hall Institute (WEHI).

Recently, Gennova, in partnership with the US-FDA, McGill University, Ohio State University, Nekken Institute of Tropical Medicine, NIH, and JHU, has entered into a collaboration to develop and manufacture clinical-grade material of the genetically modified live attenuated Leishmania vaccine candidate, funded by the Global Health Innovative Technology Funds (GHIT), Japan. The program represents two important milestones for Gennova; having a collaborative vaccine program with the US-FDA is a



significant testimony to Gennova's capabilities and attributes and involves the formulation and manufacturing of a live attenuated vaccine to Gennova's other vaccine programs, which focuses on recombinant-based products.

Gennova is currently working towards a therapeutic intervention and an mRNA-based vaccine against COVID-19. Gennova, in collaboration with HDT Biotech Corporation, Seattle, USA, has worked together to develop an mRNA vaccine since the first report of the SARS-CoV-2 genome was published. HGCO19 has already demonstrated safety, immunogenicity, neutralization antibody activity in the rodent and non-human primate models. Gennova will soon start the clinical trials.

The novel mRNA vaccine candidate, HGCO19, has all the necessary information to guide the host cells to make the antigen – spike protein of the virus, reported to interact with host cells receptor, and supported by 'lipid inorganic nanoparticle (LION)' as a delivery vehicle. HGCO19 uses the most prominent mutant of spike protein (D614G) as a vaccine candidate. It is designed on the self-amplifying mRNA platform, which gives the advantage of a low dosing regimen compared with the non-replicating mRNA or traditional vaccines. Additionally, the mRNA is attached to the nano-lipid carrier's surface to enhance the release kinetics of the mRNA within the cells compared to the encapsulation chemistry.

This mRNA-based vaccine platform will enable Gennova to handle the current pandemic situation and to combat the endemic stage that will follow (mutation in the virus, childbirth, unvaccinated low-risk population, etc.). Further, this technology offers a rapid development path that will also empower Gennova for combating future pandemic outbreaks.

Gennova aspires to transform the healthcare of millions of people, primarily through technological solutions, employing Al-assisted innovation in bio-manufacturing, diagnosis, and treatment for a better outcome.

Gennova believes that their experience and success-driven approach will facilitate their present and future journey from product development to the clinic and beyond.

Today, Gennova can proudly say that its technological innovation in healthcare has made a difference to hundreds of thousands of human lives. In subsequent years, Gennova would like to say that that it has positively impacted hundreds of millions of lives across the globe and, in the process, be the top 10 technology-driven companies in the world.



#### **GOLDEN JUBILEE BIOTECH PARK FOR WOMEN**

MS Swaminathan Bio-Incubation Centre for women 4TH Main Road, 2nd Cross Road, Inside SIPCOT-IT Park, OMR, Navalur Post, Chennai - 603103.

**Tel** : +91 9444346362

**Email**: gm@biotechpark.co.in

Website: www.biotechpark.co.in

Contact : Dr D Sudhakaran, General Manager

**Company Profile:** Golden Jubilee Biotech Park for Women was established with a vision of encouraging and empowering "Women Entrepreneurs" almost 2 decades ago. This organization is supported by Department of Biotechnology, Govt. of India, Govt. of Tamil Nadu and technical support from MSSRF. We have established companies which have their R&D and manufacturing units within our campus.

Our world class Bio-Incubation Centre provides an ample opportunity for any new entrepreneurs who would like to have a Start Up at the most affordable cost in the country. MS Swaminathan Bio-Incubation Centre is a co-working space for women from life-science sector. And first of its kind equipped with world class instrumentation facility which provides all the needs for incubatees to take up there R&D work and scale up into an enterprise. Park has eminent expertise from the various walk of academia and industry. Mentorship are provided to incubatees for statutory compliances, taxations, funding raising and other B2B, B2C ventures.

A golden opportunity for budding women entrepreneurs who wants to start-up their own venture but looking out for low cost space with sophisticated instrumentation facility in Chennai (within fast growing IT sector). Write to us in brief about your ideation (download the application form from our website www.biotechpark.co.in) and we help to your nurture your ideation into a successful venture. Selected candidates will be benefitting attractive support schemes and offers during the incubation period and mentorship from highly experienced expertise from industry and academia.

For further queries please visit our website http://www.biotechpark.co.in



#### **HAPPY RELIABLE SURGERIES Private Limited**

#752, 8th Main, Mahalakshmi Layout, Bangalore- 560086

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**Website**: https://hrsnavigation.com/

**Contact**: Arpit Paliwal, Director

**Product Details:** easyNav is India's 1st Surgical navigation system. It is specially designed for Indian healthcare infrastructure (Compact, easy-to-use, Affordable & Consumable-less). It guides the surgeon in complex brain and spine surgeries. It gives real time location of surgical instruments on patient's CT/MRI images.

It makes surgeries safer by keeping surgery lesser-invasive & significantly improving surgery outcome.

Computer guidance gives surgeon confidence, assurance and precision so they attempt challenging surgeries with ease.

**Company Profile:** Complex Surgeries of brain and spine require precision. Traditionally these surgeries are being done with human experience & guess work. With Navigation guess work is eliminated & surgeon gets real-time location of the surgical instruments being used.

We are making navigation simpler, affordable & accessible with our world-class product eastNavTM. Surgical Navigation System got developed more than 25 Years before but they are still not in main stream in developing countries due to the cost.

During Arpit's journey in previous company surgeons used to tell "My Dream" is to get navigation system. Costs were very prohibitive, even they want to use but because of very high initial price they don't get navigation system. They were part of private hospital & paying capacity of patients were not good. This was similar experience across small cities & towns of India. Being someone having deep understanding of the technology Arpit decided to develop from scratch & get it affordable to give it back to society. He started this company with the vision of making this high-end medical device more reachable and affordable for hospitals from tier II & tier III cities.



Our product easyNav is specially designed for Indian healthcare infrastructure Compact, easy-to-use, Affordable & totally consumable-less. It uses globally proven unique pattern recognition technology which makes it at par with international brands in terms with accuracy. The device has all the essential features needed and can be customized as per the surgeon's requirement

The target price is easyNav is1/3rd the price of devices supplied by international brands. This is making India Self-reliant in the sophisticated field of such a high-tech medical device.

It has got many awards and recognitions from central & Karnataka state government (Winner of Elevate 100, Winner of NASSCOM Emerge 50, Selected in 'Top 50 Startups' by IIM Calcutta, Winner of economic Times The Power of Idea award by IIM Ahmedabad).

Our initial target market includes Tier 2 and Tier 3 city hospitals with approx. 50+ beds. Later we will explore opportunities in tier 1 Hospitals and government owned hospitals. In future will be focusing on growing economies which require affordable solutions. We are already in process of getting CE certification and expect it by the mid of this year which will give us the opportunity in international market.

Simple but effective innovations in our product are appreciated by many national as well as renowned international surgeons. Our uniquely designed trackers make it only optical system in the market which can do infant surgeries.

We are creating environmental impact by eliminating the 3D disposables from each surgery. Imported systems need costly 3D tracking consumables for each surgery but we kept our system as 'Totally Consumable-less' which reduces the cost and precious surgery time to a great extent.



#### **HEAMAC HEALTHCARE**

1-11-254/1, 2nd floor, Motilal nagar, Behind ICICI Bank, Begumpet, Hyderabad - 500016

**Tel** : +91-7306554486

**Email** : akitha@heamac.com

**Website**: https://heamac.com/

**Contact**: Akitha Kolloju, CTO

**Product Details:** nLite360-An Intelligent Phototherapy system for newborn jaundice.

**Company Profile:** Heamac is an offshoot from CfHE IITH, Our vision is to provide solutions with zero separation between the child and the mother. We are solving Critical jaundice conditions which is the most neglected need in the field of Neonatology with an incident rate of 15 million jaundice cases in India alone. Our intelligent phototherapy device "nLite360" is capable of providing customized solutions on risk based analysis and provides uninterrupted therapy while breastfeeding and providing Kangaroo Mother care.



# INSTITUTE OF BIORESOURCES AND SUSTAINABLE DEVELOPMENT (IBSD)

Takyelpat, Imphal, Manipur, India

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**Email** : Director.ibsd@nic.in

Website: www.ibsd.gov.in

Contact: Prof Pulok K Mukherjee, Director

**Company Profile:** The Institute of Bioresources and Sustainable Development (IBSD) at Imphal, Manipur was established, keeping in mind the requirement of a capable institution for finding scientific ways for the sustainable uses of the bioresources and its protection to stop the depletion of the rich biodiversity in the NER. Since its inception in 2001, IBSD Manipur has been working on various thrust areas in this context including the medicinal and aromatic plants, orchids and bamboo, ethnobotanical studies, natural product chemistry, microbial diversity, fermented foods & gut microbiota, insect bio resources, freshwater bio resources and aquaculture.

To help in the process of development of bioeconomy of the country, work is being performed highlighting on several aspects containing different verticals for research, including Phytopharmaceutical Mission, Ethnopharmacology, Drug Development, Microbial Resources, Fermented Food and Value Addition, Plant Resources, Animal Resources, Eco-Restoration, and Bioenergy & Biofuel. In addition to it, we are using Bioinformatics in all the verticals for advanced data analytics, visualization, documentation and storage to strengthen the objectives of the Institute.

IBSD, Imphal along with its centres and nodes at Shillong, Meghalaya; Gangtok, Sikkim; and Aizawl, Mizoram; with the active participation of committed staff continues to be a pillar of excellence and a pioneer of bio resource conservation, development and research in the North Eastern Region of India. International as well as national collaborations in and across various laboratories from India and abroad has been made.

The Ishopanishad says environment belongs to all living beings, so it needs protection by all, for the welfare of all. Science is a work in progress, new information and technological advances being constantly added as the world develops. Human civilization was built on the basic understanding of identifying bioresources and their applications for sustainable development. We at IBSD believe that in order to keep us updated and continue to contribute to the society, integrated and synergistic research is essential. Hence, partners from all sectors and diverse stakeholders are engaged with our institute, through multi-disciplinary, inter-disciplinary and trans-disciplinary approaches.

We are striving to build further on the strong fundamentals and mandates of IBSD and attain greater heights of eminence through our efforts. Biodiversity is the nature's gift for everyone. Let us preserve those gifts and promote them for the betterment of the society at large. I hope, with your whole hearted support, we will be able to take IBSD to further heights.



# **IDEAS UNLIMITED, MYSURU**

111/V, Emerald Enclave, Behind Infosys, 9th Cross, Anaganahally, SR Patna Taluk, Mandya District - 571 606

**Tel** : +91-93421-87227 | +91-821-2972979

**Email** : nagendra.setty@ideas-unlimited.in

Website: www.ideas-unlimited.in

**Contact**: Nagendra Ramakrishna Setty, Founder, CEO

#### **Product Details:**

**Product 1: Isolation Cubicle:** Isolation Cubicle is an easily portable, Rapid (2-minutes) deployable isolation solution designed for use in Hospitals, Airports, Railway Stations, for handling epidemic/pandemic situaions to give a complete isolation solution!

The In-built Multi-Mode Air Purifier can kill all Airborne virus/bacteria/microbes exhaled by any suspected patient/traveller inside and provide safe environment to people around this When not in use it can be folded and stowed away in a warehouse. Has patient comfort and Doctor utility features too!

This product was developed for JSS Hospital in Mysore, Karnataka.

**Product 2: DentiSafe 360:** Dental Chair Sanitizers: Dentistry most impacted due to Covid-19 situation. Sanitizing Dental chairs after each patient was cumbersome and difficult, and required usage of chemicals. I

Now, Dentisafe 360 enables Sanitizing of Dental chairs and surroundings easily, without using any chemical sanitizers using UV light. Dentisafe 360 sanitizes so quickly that it can be used for treating each patient in a dental clinic/hospital! Dentisafe 360 comes with in built safety timer for safe operation of these units, without exposing yourselves to UV rays too!

Dentisafe 360 is a versatile 9 Degree of Freedom device that can even be used for non chemical sterlization of Dental tools, Operation theater tools and a multitude of tools easily without getting users exposed to UV light! It can also do a 360 degree room cleaning and can be folded and stowed in a corner of the clinic/hospital when not in use!



This product was developed in collaboration with JSS-AHER (JSS Academy of Higher Education & Research - A Medical University) during Covid lockdown period.

**Product 3: Multi Mode Air Purifiers:** Ideas Unlimited's Multi-Mode Air Purifiers developed and made into product during the peak of Covid-19 pandemic is a valuable tool in front line Covid fight!

This Air purifier is designed to be operated in a Covid ward and Covid ICU and can reduce chances of secondary infection from Covid patients drastically by upto 90% to other patients or front line covid healthcare professionals!

Our Multi-mode Air Purifiers are designed to clean air in 3 modes, UV, Ionization and HEPA Filter!

This product has been tested in a professional virology lab by nebulising live viruses and found to clean up the target area from airborne viruses and bacteria in 20-40 minutes completely!

This product was developed in collaboration with JSS-AHER (JSS Academy of Higher Education & Research - A Medical University) during Covid lockdown period.

**Product 4: Field Portable Isolation ICU on wheels:** Designed for Pandemics, Disaster Management situations, "Field Portable Isolation ICU on wheels", was another product we developed during the Covid-19 pandemic lock down.

This product comes in a box, in 3-4 modular dismantled pieces form. It is a fully equipped ICU bed (including Patient monitors, Infusion Pumps, Syringe Pumps) and Complete isolation feature in built into the system.

The system has its own air conditioning system for patient comfort and also has an Exhaled Air treatment system called Multi-Mode Air Purifier, which is proven to kill air borne viruses and microbes.

This product helps in managing large scale natural calamity by allowing it to be deployed in any place with electricity available, near to the disaster site, and helps patients so time is not wasted in transporting needy patients to hospitals in urban area!

This is our Flagship product being developed in collaboration with JSS-AHER (JSS Academy of Higher Education & Research - A Medical University) during Covid lockdown period.



**Company Profile:** Ideas Unlimited, Mysuru is an R&D lab/Product Development lab which develops new products and technologies in the domains of Medical Electronics, Wearable electronics, Mobile Robots, Defence Technologies, Electric Vehicles, etc. We strive to provide excellence in design, which automatically contributes to excellence in manufacturing quality of the products.

We have expertise in design in many domains of product engineering, product design which help us employ current and cutting edge technologies to make high quality and well thought of products. We have expertise in mechanical, electronics, software (embedded, PC, mobile devices), physics, optics and many other engineering domains like Bionics, Robotics, Automation, Fun Engineering that help us develop great technologies and products.

We also have a manufacturing capabilty to mass produce the products we develop and a marketing system. We have developed several innovative products in multiple domains our last 10 years of existence.

During Covid-19 pandemic lockdown, we focussed our business along with the Medical University JSS-AHER (JSS Academy of Higher Education and Research, Mysore) to build and commercialize several Covid-19 combating products that can be useful even beyond the pandemic for Disaster Management, Pandemic Management.

Our Company Website: www.ideas-unlimited.in



# IgY IMMUNOLOGIX INDIA PRIVATE LIMITED

3-14/2, Narsingi, Hyderabad 500089

Tel : +91-9704289998

Email : lavleen@igylx.com

Website: www.igylx.com

**Contact : Lavleen Kumar Gupta, Director** 

**Product Details:** Drug discovery clinical candidate research and customized research antibodies

**Company Profile:** IgY Immunologix is dedicated to drug discovery research and has mandate to provide clinical candidate for cancer and autoimmune disorders in the translational space with substantive animal or human proof of concept data. With DSIR approved lab at Hyderabad, the group is working on a diverse portfolio of programs ranging from cancer metastasis, solid tumors and Immunology and inflammatory disorders.

Sepsis is a potentially life-threatening complication of an infection especially in hospital conditions where antibiotics fail to work due to antibiotic resistance. Sepsis occurs when various cytokine mediators released into the bloodstream to fight the infection trigger inflammatory responses throughout the body. The over reactive immune response which cause burst of cytokine poured in blood stream which cause septic shock, blood pressure drops dramatically can be curbed by inhibiting LR/MyD88/IRAK/NFkB signalling pathway. IRAK4 is found as key enzymes which can control this overproduction of cytokine mediators hence reduce chances of septic shock.

Using innovative structure-based approach, we designed, synthesized and tested small molecule inhibitors based on hits originating from a virtual screen. Utilizing unique and innovative structure-based drug design, we have rapidly discovered potent IRAK4 inhibitors as potential hit to lead compounds for the treatment of sepsis.

More than 120 novel IRAK4 inhibitors compounds have been developed successfully which possess few compounds in two digit nanomolar range activity in biochemical and cell based assays. These novel compounds were profiled for IRAK4 kinase inhibition with IL-1 and TNF alpha based cellular assays.



IgY Immunologix has developed successfully active IRAK4 inhibitor molecule for septic shock. The team have developed new structure activity relationship (SAR) insights. With the promising profile of IRAK4 20nM compound with highly selectivity over more than 40 kinases on different pathways, series of compounds showed promising profile in biochemical, cell based assays and animal model. With good ADME and pharmacokinetic profile compounds has shown excellent in vivo efficacy model of septic shock. Utilizing unique and innovative structure-based drug design, we have rapidly discovered IRAK4 inhibitor molecule with good profile and we are exploring further for developing as clinical candidate for rheumatoid arthritis.

Another target we are working for solving chemoresistance problem of cancer drugs. Developing of small molecules for autophagy inhibition plays an important role for chemosensitivity.

Autophagy is a central cellular mechanism for elimination of damaged proteins, protein complexes and organelles. In response to stress, cancer cells generate nutrients and energy through a cellular recycling process called autophagy, which can promote survival and tumor progression.

Autophagy inhibition has emerged as a potential cancer treatment strategy.

Autophagy induction is controlled primarily by the serine/threonine kinase, ULK1 (unc-51 like autophagy initiating kinase 1). ULK1 integrates upstream signals from both the mechanistic target of rapamycin complex 1 (mTORC1) nutrient-sensing and the AMP-activated protein kinase (AMPK) energy-sensing pathways to induce the production of early autophagic membranes.

ULK1 is a promising target for autophagy inhibition because of its central role in pathway activation, druggable nature, and apparent selectivity for autophagy over other cellular functions. Inhibitors targeting ULK1, an essential and early autophagy regulator, have provided proof of concept for targeting this kinase to inhibit autophagy; however, these are limited individually in their potency, selectivity, or cellular activity.

ULK1 inhibitor finds the role of autophagy in cancer cells and to evaluate the therapeutic potential of autophagy inhibition. The ULK1 inhibitor will be first-in class therapy for the resistant and refractory cancers. The group has developed novel targets to design tailored molecules for cancer chemoresistance to improve clinical outcome as well as for autoimmune disorders with a target specific PROTAC molecules. Working with different biotech companies and academic institutions, the company has diverse product portfolio. With the manpower of 60+ man years' experience in drug discovery



screening and target validation, the dedicated labs is capable of developing assays with Cell Biology, Molecular Biology tools and understand Immunological invention pathways.

IgY Immunologix has also developed product portfolio for veterinary and aquaculture with IgY antibodies and various nanoparticles. With tailored IgY antibodies of specific need for lab research, diagnostics and therapeutics of human and veterinary importance, the group have technologies to develop rare and valuable research antibodies, patentable cancer biomarker diagnostics, effective nutraceuticals, and therapeutic antibodies.



#### INDIAN IMMUNOLOGICALS Limited

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**Email** : santosh@indimmune.com

Website: www.indimmune.com

**Contact**: Santosh Kumar Dash, Sr Manager, Head Product Management Team

Product Details: Rakhsa Ovac, Rakshasas, Abhayrab, Vaxtar 5

**Company Profile:** Indian Immunologicals was setup by The National Dairy Development Board (NDDB) in 1982, as its unit, with the objective of making vaccines available to farmers at an affordable price. The unit was corporatized as Indian Immunologicals Limited (IIL) in the year 1999.

IIL is the market leader in veterinary biologicals in India and operates one of the largest plants in the world for veterinary vaccines. IIL has adequate infrastructure and cold chain maintenance capabilities to reach out to the nooks and corners of India. This fexibility in logistics has ensured many products of IIL to occupy top slots in the market.

IIL started manufacturing human vaccines in 1998 at the specific request of the Government of India. IIL is the second company in the world and first in India to launch the purified Vero cell rabies vaccine (PVRV) with the brand - Abhayrab. This led to the discontinuation of use of the older and unsafe sheep brain vaccine (also termed nerve tissue vaccine - NTV) in the Country.

IIL is a major player in the human vaccine market in India, focusing on the pediatric and rabies vaccine segments. IIL is also a major supplier of pediatric vaccines to India's large Universal Immunization Programme.

IIL pursues not only the mandate of NDDB to provide products and services to enhance the quality of livestock in the country, but also utilizes its technological capabilities for the benefit of the people.



#### **IIT MADRAS HTIC MEDTECH INCUBATOR**

No.1, 5th Floor, C-Block, IITM Research Park, Kanagam Road, Taramani, Chennai-600113

**Tel** : +91-8675691150 | 044 6646 9830

**Email** : sparsh@htic.iitm.ac.in

**Website**: https://htic.iitm.ac.in/mti/

**Contact**: Archana Balan, Program Manager

Company Profile: The IIT Madras MedTech Incubator was set-up with support from BIRAC under the BioNest scheme. Healthcare Technology Innovation Centre (HTIC) is a joint initiative by the Indian Institute of Technology Madras (IITM) and Department of Biotechnology (DBT), Government of India. The focus is to foster and stimulate MedTech innovators, aspiring entrepreneurs, and early stage start-ups. The MedTech Incubator's prime focus is to build a community of healthcare entrepreneurs who can deliver innovative, affordable, and valuable Medtech solutions and products for the Indian society. The incubator provides wide-ranging support to start-ups and entrepreneurs working at the intersection of healthcare and technology. The Incubator also extends its support by providing a stimulating platform for healthcare enthusiasts to get their hands working on premature ideas. MedTech incubator provides support and resources required for a MedTech start-up to thrive. It includes workspace and infrastructure, access to business support services, industrial interactions, mentoring, seed funds, and training programs to enhance the skills of the entrepreneurs. The incubator is attached to the Healthcare Technology Innovation Centre (HTIC), a multidisciplinary research centre. The centre extends its support in providing access to its healthcare researchers and product experts to assist the startups in joint technology development, product/ service development and clinical, design & market validation. The Incubator currently has 30 start-ups in the Incubation program and 40+ start-ups in the Pre-Incubation program. The MedTech Incubator is also Satellite Centre for Augmenting WAR with COVID-19 Health Crisis (CAWACH) with 7 start-ups under the program. CAWACH supports innovations in the areas of diagnostics, devices, informatics including bio-informatics & information management systems, any intervention for the control of COVID-19 and/or startup ideas to address/mitigate various challenges faced by the country/society due to the severe impact of COVID-19. The Incubator is one of the SPARSH centres supported by BIRAC. SPARSH is the



Social Innovation programme for Products: Affordable & Relevant to Societal Health. The incubator currently has 5 social Innovators working on the program for Maternal and Child Health domain. IITM HTIC MedTech Incubator being one of the SPARSH Centres would provide all the requisite support to the SPARSH fellows in the specific domain for the 18 months of the fellowship duration. IIT Madras-HTIC MedTech Incubator is also a BIRAC's Associate BIG Partner. BIG (Biotechnology Ignition Grant) is a flagship scheme of BIRAC which recognizes and invests in innovative ideas in the biotech sector. As a BIG Associate Partner, the MedTech Incubator provides orientation to the Innovators and entrepreneurs on the eligibility & aim of BIG schemes, mentoring and handholding prospective BIG applicants and assisting them for application, and facilitates connects and networking for BIG applicants.



#### **IKP**

IKP EDEN, Opp Forum Mall, Tavarekere Main Road, Bangalore

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**Email** : priyankana@ikpknowledgepark.com

Website: www.ikpeden.com

**Contact**: Dr Priyankana Mukherjee, Senior Manager

Company Profile: IKP EDEN BioNEST, spanning nearly 25,000 sft offers incubation support, biotech and engineering equipment laboratories, co-working and private spaces, classroom, meeting rooms, networking and utility areas etc. Located at the heart of the Bangalore city in Koramangala, the incubation space is well connected to firms for various services and investments. The main objective of IKP EDEN BioNEST is to help technology-oriented start-ups build prototypes and promote Innovation and Entrepreneurship in Medical Technologies, Diagnostics, Devices, Digital Health, Clean Energy, Agri-Tech, Technology Based Healthcare Delivery Systems, Robotics and Automation in Healthcare and take them to a next level. Over past 5 years, more than 1200 innovators have been supported and 32 innovations are funded.



#### IKP KNOWLEDGE PARK

Genome Valley, Turkapally, Shamirpet, Medchal-Malkajgiri District, Hyderabad-500101, Telangana, India

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**Website**: www.ikpknowledgepark.com/index.html

**Contact**: Dr. Viswanadham Duppatla, AVP

Company Profile: IKP Knowledge Park (IKP) is a 200-acre premier Science Park and Incubator with physical presence in Hyderabad and Bangalore, India. It is the first wet lab research park and incubator in India set up with the mission to create a world-class ecosystem for fostering leading edge innovation. IKP promotes the advancement of technology-based innovators, entrepreneurs and small and large companies through customized space, shared equipment, incubation, mentorship, and funding. IKP has so far supported 720 companies and innovation projects from 8 countries, including around 670 start-ups and innovators.

IKP Knowledge Park launched its Grants Management Programme in 2011, Biotechnology Ignition Grant (BIG) partner of BIRAC and conducts Grand Challenges and other innovation scouting programmes in partnership with the Bill & Melinda Gates Foundation, USAID, DFID, BIRAC, DBT, NSTEDB, DST and the Government of Karnataka. The Biotechnology Industry Research Assistance Council (BIRAC), in partnership with IKP, set up the BIRAC Regional Innovation Centre (BRIC) to further BIRAC's mandate of building a deeper understanding of the capacity and gaps in innovation, commercialisation and technology absorption ecosystems, and developing targeted programmes.



#### **INFINITA BIOTECH Private Limited**

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**Tel** : +91 - 6353 417 712 | 0265 228 0447

**Email** : palak@infinitabiotech.com

Website: www.infinitabiotech.com

**Contact**: Palak Desai, Marketing Executive

**Product Details:** Enzymes

**Company Profile:** Infinita Biotech Private Limited, founded in 2015, is a leading multidivisional biotechnology company in India and engaged in manufacturing eco-friendly enzymatic solutions for a variety of industrial applications in India as well as overseas.

Our company comes with technical experience professionals of over 30 years in the field of industrial enzymes, and our leadership and extensive expertise in the domain of biotechnology has enabled us to grow with continued success. This can be attributed to our policy of providing innovative, effective and high-quality products and solutions to meet specific customer needs with continuous research and development. The desire for cutting-edge innovation is defined by our best-in-class research laboratories and state-of-the-art manufacturing facilities. Our production mechanisms are handled by well-qualified and highly motivated personnel and follow stringent control protocols and in-process quality assurance procedures. Our distinctive delivery processes are backed by a strong marketing and distribution network, which is strengthened by the relationship we share with our suppliers and dealers.

We have acquired certifications like ISO 9001:2015, ISO 22000:2018, HALAL, FSSAI, GMP and our Research and 1- 3 March 2021; Digital Platform Development Centre has been recognized by the Department of Scientific and Industrial Research (DSIR), Ministry of Science and Technology, Government of India. Our concern for the environment is at the centre of everything we do. As a result, our products provide multiple benefits that cannot be obtained through traditional chemicals and processes such as superior quality, lower production cost, less wastage and reduced energy consumption. As of today, our clients belong to a wide range of sectors like:

Sugar, Starch, Distillery, Brewery and Wine, Detergent, Textile, Waste-Water Treatment, Agriculture, Animal Feed, Disinfectants, Pharmaceuticals, Crude Oil Spill Remediation, Pulp and Paper and Second Generation Biofuels



#### **INOVIEA VENTURES PRIVATE LIMITED**

D-35, Sector-7, Noida

**Tel** : +91 9910228861

**Email** : suchin@inoviea.com

**Website**: http://ipanelklean.inoviea.com

**Contact**: Suchin Jain, Director

**Product Details:** It is a patented technology in waterless solar panels self cleaning system that increases power generation anywhere from 30% to 100%. It is completely automatic, programmable, waterless, brushless and does not have any moving parts on solar panels. We first make the solar panels slippery by special coatings and then blow them clean using compressed air multiple times a day. Such that it increases the power generation of solar panels anywhere from 30% to 100% and reduces the payback period of entire Solar plant by upto 40%. That too without adding additional roof top space or land area.

**Company Profile:** i-panelKlean is result of the innovative process driven approach followed at Inoviea Consulting & Services, an IIT IIM alumni venture. We provided consulting and market research study of 2GW solar park to a large client, developed India's first solar charged E-boat launched by our honourable prime minister Shri Narendra Modi ji and setup state of art hybrid solar plants that today produce highest power per kw on annual average basis.

Today Inoviea has disrupted the Solar Cleantech space with its patented innovative solution and is operating through multiple stakeholders in B2B, B2C and B2G space and has in-house manufacturing of key components, design and system integration capabilities.

The startup is incubated at Nexus, a US govt incubator, registered as India govt startup, registered with NSIC, MSME, CII, ISO 9001:2015 certified, MNRE empanelled and MEITY supported company.



#### InnAccel TECHNOLOGIES PRIVATE LIMITED

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**Email** : nitesh@coeo.in

Website: www.innaccel.com

**Contact**: Nitesh Jangir, Director, Critical Care

#### **Product Details:**

- Saans is world's 1st infrastructure independent, portable, easy to use, neonatal CPAP device, which can be used both in hospital and in transport settings
- Fetal Lite is a next gen f-ECG based FHR monitor that accurately identifies cases of fetal distress in clinical and non-clinical (remote/in-home) settings
- Saans Pro is a novel CPAP and HFNC system for COVID-19 patients
- VAPCare is world's first intelligent, automated and closed-loop secretion and oral hygiene management system for ventilated ICU patients
- Saans CPAP helmet is a novel CPAP helmet interface to prevent cross-infection of nursing staff in COVID-19

Company Profile: InnAccel is an Indian Medical devices company based out of Banaglore. We are creating world's first portfolio of medical products, designed, engineered, and priced, for Global Emerging Markets. Globally, the Medtech industry has innovated for high-income, insured, Western markets, resulting in an exclusive focus on cutting-edge R&D, and highly priced technology. There has been a growing disconnect between healthcare needs of low/mid-income countries, and the products developed today. MedTech innovation focused on unmet needs and affordability constraints in emerging markets (EMs), can exploit this gap, and tap the >\$200 billion EM MedTech opportunity. InnAccel aims to become the global leader in this area of "Affordable MedTech Innovation". Over last 5 years, we have developed an exhaustive portfolio of innovative products across Critical care, and Maternal and child care.



# INSTITUTE FOR STEM CELL SCIENCE & REGENERATIVE MEDICINE (INSTEM)

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**Website**: https://www.instem.res.in/

**Contact**: Arvind Ramanathan, Head Research

#### **Product Details:**

- iPSC-technology;
- Mouse models for disease
- iPSC-based bioresources
- Advanced training of human resources through short term workshops and focused skilling efforts.
- Technology development in Stem Cell Science, Tissue Repair, Cell & Gene Therapy;
   Chemical Biology leading to Drug Design
- Programmes for PhD and Post-Doctoral Scientists in state-of-the-art laboratories

**Company Profile:** The Institute for Stem Cell Science and Regenerative Medicine (inStem) is an autonomous institute of the Department of Biotechnology (DBT), Ministry of Science and Technology, Govt. of India. Established in 2009, inStem is India's first stem cell institute with a mandate to address complex problems in areas of directed differentiation and tissue regeneration with disease relevance. InStem has executed this mandate through collaborative research programs involving interdisciplinary teams with translational emphasis. Efforts have focused on building core strengths in stem cell biology and manipulations, in areas such as repair from injury or wounding, disorders of blood, brain and heart disease. inStem hosts a highly competitive PhD program and attracts outstanding Postdoctoral Fellows, who make up a significant part of its laboratories.

inStem has engaged on a global platform to bring in the best in science to the campus and the country. The institute has engaged across institutional and national borders to take advantage of the rich resource of people and talent in other locales. Given the complexity of the research and clinical problems addressed at inStem national and international partnerships have been carefully nurtured, to combine resources and expertise that cannot be found in a single institution.



In keeping with its mandate, inStem has established major thematic programs, several in close collaborations with clinicians, in areas of brain development and repair, cardiac disease, tissue repair following injury and inflammation, cell differentiation and plasticity and pioneered new approaches to create small-molecules with potential for therapy. The Centre for Stem Cell Research (CSCR) - a partnership with Christian Medical College (CMC) Vellore - is the translational unit of inStem focused on the development of cell and gene-based therapies for blood disorders.

Under the major initiative of the DBT to connect institutes together to effect synergies in functioning and to enhance the critical mass of researchers/entrepreneurs who are connected in one space, inStem has partnered with NCBS and C-CAMP to form the Bangalore Life Science Cluster (BLiSC)- an integrated campus for a range of activities around life sciences, fundamental research in individual investigator-driven laboratories (NCBS), thematic research with translational focus (inStem) and a potential for technology development and entrepreneurship (CCAMP). The Bangalore Life Science Cluster, hosts state-of-the-art, advanced facilities that serve as a national resources for scientists in academia and industry in India and the world. These include the National Electron Cryo-Microscopy Facility, a first-of-its-kind centre, offering both access and training in partnership with industry. Similarly, the National Mouse Research Resource is a world class animal facility, which has recently generated the first genetically engineered mouse models to study COVID-19, using gene editing approaches.

inStem has an active programme of workshops and meetings, focusing on advanced skilling efforts to build human capacity. inStem has established a biorepository of indigenous Human iPSC and a Haplobank of GMP grade iPSC as resources for academic and clinical research and application as well one of the first-in-the-world cohorts of mental illness and the first gene therapy trials for blood disorders in India.

Innovative technologies developed in our laboratories, include approaches for treatment of cancers, a topical gel that mitigates pesticide toxicity, as well as germicidal-coating on fabric, which has been marketed as a face mask. Recognising the important role that industry plays in the translational ecosystem, in Stem has built partnerships with established leaders such as Unilever and L'Oreal to gain new insights into wound healing and leverage these discoveries to develop new approaches in skin health and disease.

Training workshops - in IPSC technology; Animal Handling and management; Cryo-biology; Crispr/Cas9 technology; Bioinformatics - accessible to students and researchers in academic and Industry, are continuing and important events on our calendar.

As a premier centre for bio-medical advances, in Stem is the ideal partner to leverage bioscience research into marketable solutions.



#### **INTRUST - CONSULTING**

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Email : info@intrust-consulting.comWebsite : www.intrust-consulting.com

Contact : Dr. Sanjeev Kumar Gupta, Managing Consultant

Product Details: Techno-QMS & Regulatory Consulting Services for Medical Device & IVD

- Design, Execution and Qualification of Manufacturing Facility. Upgrade of existing facility
- Design, Implement and Manage QMS (ISO 13485, MDR 2017, MDR & IVDR)
- Schedule IV and Schedule V compliance to MDR 2017 for class A, B, C & D MD/IVD
- Planning, execution and closure of Clinical Investigation, Performance Evaluation & Clinical Performance Evaluation
- Technical Documentation for MDD & MDR/745 AND IVDD & IVDR/746
- Trainings for ISO 13485:2016, MDR-2017 Schedule V Processes (e.x. Design Control, Risk Management)
- Master Validation Plan and Validation Protocols
- WHO Emergency Use Listing (EUL) and WHO Prequalification (WHO-PQ\_ of IVD Diagnostics (Product Dossier, QMS, Site Inspection)

**Company Profile:** The **Intrust-Consulting** is a Techno-QMS-Regulatory consulting firm for Medical Device and IVD industry.

Dr. Sanjeev Kumar Gupta leads the firm after his 6 successful QMS & Regulatory Leadership stints at national and multinational companies, and multicultural working of 25 years.

It began amidst changing regulation (CDSCO MDR 2017, EU MDR & IVDR for CE Marking, MDSAP) requiring highest & ever increasing level of compliance to ISO 13485 based QMS from Design (including clinical performance and investigations) to Post Market Surveillance & Materiovigilance. This means improved quality of people,



product designs and validated processes & state of the art facilities which can sustain stringent & unannounced audits. The impact of changing regulation is high and across segment affecting suppliers, manufacturers, notified bodies and even competent national authorities.

Intrust-Consulting will help MD-IVD company to reach regulatory compliance goals though building of robust & SMART QMS, improvement in existing QMS and enable their reparedness to sustain the improvement through consistent high-quality approach. Obtaining WHO-PQ, WHO-EU Listing and WHO-Recommendation of IVD products gets easier (As applicable) with such improvements.

Intrust-Consulting offers Techno-QMS-Regulatory consultancy throughout product's life cycle after understanding the product, technology and target markets.



#### JEEVTRONICS PVT. Limited PUNE

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**Email** : agawade@jeevtronics.com

Website: www.jeevtronics.com

**Contact**: Ashish Gawade, Co-founder/ Director

#### **Product Details:**

• Pharmaceutical Works on AC Mains & Built-in hand cranked generator.

- Battery-less. No battery change for 10+ years.
- Certified to IEC International Standards
- Synchronous Cardioversion.
- 16,000 Shocks Capable
- Drop & Vibration resistant body
- Certification: EN ISO 13485 (Procedo Intl), ISO 13485 (IAS USA, NABCB India)
- Shortly will receive AIS 125 Ambulance rated.

Company Profile: Jeevtronics is a social + technology venture. We have developed the world's first dual powered bi-phasic defibrillator (SanMitra 1000 HCT), which works even in geographic areas without electricity. This is indeed the world's most reliable defibrillator. Lots of lives have been saved across India and Africa.

Our company has significant competencies in medical devices, renewable energy etc. We are located in the automotive hub of India- Pune.

We look forward to establishing presence in Africa, Asia and S America during 2021 and in Europe/ North America in 2022.



#### KIIT TBI TECHNOLOGY TRANSFER OFFICE

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**Email** : vinay@kiitincubator.in

Website: tto.kiitincubator.in

**Contact**: Vinay Mehta

**Product Details:** Technology Transfer Services including Patent filing, Technology scouting, Industry connect and sponsored research, Industry-academia events.

Company Profile: KIIT TBI TTO is one of the seven TTOs established in the country under National Biopharma Mission's objective of establishing Technology Transfer facilitation centres for the innovators, researchers and startups under the industry-academia collaboration thrust. Technologies developed in the Universities, research labs and scientific institutions across the country need to bring useful contribution to the economy through industry adoption and exploitation. Technology Transfer is a means of strengthening the idea of Aatmanirbhar Bharat wherein indigenous technologies are adopted by the industry to serve local and global needs.

KIIT TBI is well known for its proactive efforts to nurture the innovation eco-system in the Eastern and the North Eastern regions of the country. In establishing this TTO, the aim is to strengthen this ecosystem with the Indian industry adopting the technologies coming out of these regions for the welfare of the people of these regions in particular, and for the country, in general. KIIT TBI TTO office functions in a collaboratively harmonious way with industry and innovators, brings them together, and brings out the best technologies for improving the lives of people and boosting local and national economy.



#### KINVAC INNOVATIONS LLP

Bionest- Panjab University

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**Contact**: Tanya Bajaj, Founder

Product Details: Kinvac offers a range of Lipases (Lipvac series) and Bio-flavors.

- Lipvac-1P: >20,000 U/mg of protein; Type: Purified, Lyophilized powder
- Lipvac-1S: >2,000 U/mg of protein; Type: Purified, Solution
- Lipvac-2S: >500 U/mg of cells; Type: Lyophilized whole cell enzyme
- Bio-flavor series with Strawberry, Banana, Pineapple, Orange and Floral aroma (that can sustain boiling temperatures and thus are highly useful in bakery, dairy and confectionery industry)

**Company Profile:** Kinvac Innovations LLP is a life-science based start-up funded by the Biotechnology Industry Research Assistance Council (BIRAC) for innovation in the field of secondary agriculture and food processing under the Secondary Agriculture Entrepreneurial Network in Punjab phase-1 (SAEN-BioNEST Project). The company is established with a base in Karnal, Haryana and is currently being incubated at BioNEST-Panjab University, a leading bio-incubator of the country funded by BIRAC.

The company aims at utilization of agricultural waste for the development of environment-friendly and economically viable bio-process technologies for production of commercially valuable biocatalysts, flavors and fragrances. The objective is to bring in to the market novel life-science based technologies that create a direct or indirect impact on the society. Lipase is the major target enzyme being produced currently from bacterial sources and its scale-up is envisaged in near future. Other products to be delivered by the company include the organic short chain carboxylic acid esters to be used as food flavors and fragrances.

We aim to enter the market by providing solutions for existing problems in the field and generate revenue with some unique components of novelty like- cheaper alternatives of media composition for enzyme production, Unique biological processes for enzyme production, enzyme immobilization and bio-conversion, Enzyme (s) and product (s) with increased temperature and solvent stabilities, Novel lipolytic bacteria, Greener substrates for flavor- ester synthesis., etc.



#### **KOZHNOSYS PRIVATE LIMITED**

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Website: www.kozhnosys.com

**Contact**: Jilma Peruvangat, Director

**Product Details:** We are developing "CanScan", a breath based screening device for cancer. For detecting cancer all one has to do is breath. It can detect cancer at stage 1. The device analyses chemical composition of breath and tells whether cancer is present or not. It is affordable, so conducting annual screenings won't burn a hole in the pocket. It is radiation free, so any number of tests can be conducted without worrying about harmful X-rays. It is non-invasive, one only has to exhale into the machine inlet. It gives 100% conclusive results and doesn't require a medically qualified person to operate and interpret the results. The low selling price of the device will allow small hospitals and medical laboratories to afford our machine and allowing the technology to reach a wider population

**Company Profile:** Kozhnosys is a start-up involved in the development of biomedical devices with the aim of building cost-effective and easy to use medical diagnostic devices using cutting-edge technology. Our vision is of a future where routine medical screening devices are part of our everyday lives much like mobile phones and the Internet are today. We foresee small, intelligent medical devices in our homes that can perform quick health checks and provide immediate feedback on important health parameters and act as an early warning system for diseases.



#### KRIMANSHI TECHNOLOGIES Private Limited

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Website: www.krimanshi.com

**Contact**: Rijo Thomas, Product Manager

Product Details: Premium Cattle Feed

**Company Profile:** Krimanshi is a social venture founded by biotech engineer Nikhil Bohra, with the intention of increasing rural income by improving the productivity of Indian cattle with a better quality feed.

Krimanshi is a triple bottom line company having economical, social and environment impact. Krimanshi is revolutionizing the innovation-stagnant Indian feed sector by creating new value chain around unconventional feed resources to produce natural high nutrition feeds. Krimanshi focuses to provide better nutrition to farm animals and is extensively working to explore and induct new feed raw materials from food surplus, residues and wastes. Starting with cattle feeds, Krimanshi's early users have reported over 20% increase in milk yield and, fat and SNF%.



#### KWAKLEI AND KHONGGUNMELEI ORCHIDS Private Limited

Sagolband Vijaygovind (Bijoygovind), Imphal-795001, Manipur, India

**Tel** : +91 9856664628 | +91 3857962128

**Email** : kwakleiandkhonggunmeleiorchids@gmail.com

Website: www.kwakleikhonggunmeleiorchids.com

**Contact**: Dr Rajkumar Kishor, Managing Director and Chief Scientist

**Product Details:** Hybrid orchid synthesis. The company is developing more than 150 new hybrid orchids along with clonal propagation of some of the elite hybrids.

**Company Profile:** Kwaklei and Khonggunmelei Orchids Private Limited was incorporated on 18th September, 2013 with Dr Rajkumar Kishor and Thoudam Kebisana as the founder directors. Since its establishment the company has been working hard to progress as a pioneer orchid breeding industry in India. With a vision to harness the rich orchid resources of India, especially the North East region, this company has the main objective to produce novel hybrid orchids using the different species available in this region so that it can create a niche to compete in the global market. It also has the objective to groom the educated unemployed youths to take up orchid cultivation as a lucrative job to harvest the economic benefit. Our company looks forward to provide benefits both at local and global levels.

Some of the promising hybrid orchids, viz., Ascocenda Kangla, Aeridovanda Shiv Sidhu, Renantanda Kebisana Shija, Renantanda Prof G. J. Sharma and Renantanda Momon Shija were propagated in the laboratory for production of clones of the elite genotypes. Most of the fully regenerated plants were hardened and transplanted under greenhouse environment. The company also started rendering micropropagation service to those who wish to multiply and grow orchids and hybrids of their choice.

BIRAC has been instrumental in grooming our company by providing BIG and SBIRI grants and now we are at a stage to scale up production to commercialize our orchid.

Kwaklei and Khonggunmelei Orchids Private Limited has a DSIR recognised R&D orchid breeding and micropropagation laboratory.



#### LYDOR SOFTWARE INNOVATION PRIVATE LIMITED

No. 39, 2nd Floor, Suite #1412, NGEF Lane, Indiranagar, First Stage, Bangalore, Karnataka, India-560038

**Tel** : +919871151645 | +917042448069

**Email** : vanya@lydor.club

Website: www.lydor.club

**Contact**: Vanya Pandey, Consultant - Marketing & Strategy

**Product Details:** MyGame from Lydor Software Innovation Private Limited presents Brain Mapping and AI driven products for sports and fitness which span from remote coaching, with special focus on injury management, performance enhancement and team analyses. These high precision, cutting edge technology products from Lydor have low costs of installation and maintenance and can be used for workout at home or on ground training. The product line features Smart Yoga(Indoors) and MyCric(Outdoors) in the MedTech, Smart Healthcare and Sports Technology Arena.

Company Profile: Bringing together the latest developments in the fields of Brain Mapping, Machine Vision, and Artificial Intelligence, MyGame from Lydor Software Innovation Private Limited is one of the leading one-stop platforms for sports, fitness and health tech. Novices, enthusiasts, pro athletes, sports managers, club owners - everyone benefits from MyGame's easy to use products that provide data driven analysis and strategy tools along with post game reports and player performance progress tracking for improved training. These smart products are made to be used across the spectrum of sports and fitness - at home, while traveling or on the training grounds of leading sports academies and pro clubs. Better systems of analysis leave very little to chance and help improve your performance while reaching your goals faster and smarter. Multi-player analysis provides teams with opportunities to better their team-work and synergy. Fan engagement, remote coaching and live sports viewer enhancement are some of the other features that MyGame products provide. We look forward to engaging with partners that help us bring our product to the right channels.



# MALLIPATHRA NUTRACEUTICAL Private Limited.,

Technology incubation Center, Sir MVIT Campus, Hunsamaranahalli, Bangalore, Karnataka, Bangalore, India

Tel : +91-8147586524

Email : mallipathra@gmail.com

Website: www.mallipathra.weebly.com
Contact: Dr. Mousumi Mondal, Director

# **Product Details: Cordyceps:**

Cordyceps fruiting body is one of the important products of our company. It is rich in Cordycepin and Cordycepic acid which is known for rich medicinal properties, you name a diseases, it has a cure for it. It is also known as Himalayan Viagra due to its aphrosodiac activity.

The product cordycep is a super food that has several miracle molecules like cordycepin, cordycepic acid, essential fatty acids, phenolic compound, anti oxidant etc.,

It is proved that cordyceps can be used as a nutraceutical for treatment of various diseases for the ailment related pro-sexual, anti-inflammatory, anti-oxidant, anti-aging, anti-tumour, anti-cancer, anti-leukemic, anti-proliferative, anti-metastatic, immunomodulatory, anti-microbial, anti-bacterial, anti-viral, anti-fungal, anti-protozoal, insecticidal, larvicidal, anti-fibrotic, steroidogenic, hypoglacaemic, hypolipidaemic, antiangiogenetic, anti-diabetic, anti-HIV, anti-malarial, anti-fatigue, neuroprotective, liverprotective, reno-protective as well as pneumo-protective etc.

It is also popularly known as Himalayan Viagra and is a super food for sportsman.

Our Cordyceps is currently sold in the form of powder, capsules, tea/coffee/ health drink

It can also be used for various soups, Candy, chocolates and jelly, Health food condiments, breakfast ceareals/breads/cookies etc., for both B2B and B2C market

Company Profile: Mallipathra Nutraceutical Private Limited is a nutraceutical company was initiated through a grant in aid from BIRAC under Big scheme to Dr. Mousumi Mondal, who is currently the CEO & Director of the company.

We are an All Women led start up enterprise.

We are a food processing company specialized in growing the worlds costliest endangered medicinal mushroom Cordyceps

The company is DSIR Certified, ISO certified, FSSAI registered and GMP compliant for production of the super food miracle mushroom Cordyceps .

The company is recipient of Bio Smart Award 2019 from the Govt of Karnataka, Successful Super Achiever Award by DMA under All India Women Entrepreneurs Award 2020, Immunity Champions of India awards, BIRAC- TIE Winner Award and BCIC Emergence Start award 2020



# MANIPAL-GOK BIOINCUBATOR, MUTBI

K-tech Innovation Hub & BIRAC-BioNEST, 3rd Floor Advanced Research Centre, MAHE, Madhav Nagar, Manipal, Karnataka 576104

**Tel** : +91-9909577323 | 0820 293 7726

Email : ceo.bioincubator@manipal.eduWebsite : http://bioincubator.manipal.edu

Contact: Dr. Manesh Thomas, CEO

**Product Details:** Incubation Services, Technology development & validation Services, Business Support and Management Services, Mentoring and Seed/Financial Assistance for the Innovators and Start-ups of Biopharma, Biomedical, Dental Innovations, Biotechnology, Healthcare and Diagnostic along with access to high-end Facilities and Resource.

Company Profile: Manipal - Government of Karnataka Bioincubator, is a Technology Business Incubator, supported by Manipal Academy of Higher Education (MAHE), Karnataka Innovation and Technology Society (KITS), Government of Karnataka, and Department of Biotechnology's Biotechnology Industry Research Assistance Council (BIRAC). This facility was established at Manipal in 2019, with world-class infrastructure and facilities of 20,000 sq. ft. area with thrust areas of Biopharma, Biomedical Devices, Dental Innovation, Biotechnology, Disease Diagnosis, information technology, agriculture, renewable energy, energy conversion systems, nanotechnology, and Medical Healthcare. This world-class incubation center with cutting edge incubation facilities, infrastructure, resources, High-end instrumentation, with adequate networking and mentoring support from Clinicians, Engineers, Business experts, Investors, excellent start-up business and service support for innovators for the Proof of concept, validation, clinical trials, commercialization of the innovative idea to technology-based enterprise.

Manipal - Government of Karnataka Bioincubator provides multidiscipline entrepreneurial ecosystems and resources in Health Sciences, Pharma, Medical, Dental, Engineering, Life Sciences, Management, and Basic Science. Currently, 19 Incubatees are working in Medical innovations, Tissue engineering, Bioprinting & 3 D Organ development, Microfluidics, Drug discovery, Nanobiotechnology, Medtech devices, Diagnosis innovation, AI interfaces & Wearable technologies, Mobile health initiatives, Big Health Data, IOTs, BlockChain applications, Personalized medicine, Precision medicine, Drug delivery systems, Medical Robotics, Advances in Sensors, Life-saving Devices, Biomedical Implants, Smart diagnosis tools, Regenerative medicine,



Recombinant therapeutics, etc., and our incubation facility is running low cost and affordable incubation program including virtual incubation and co-incubation. Our technology platforms are linked with a vast network of innovators, researchers, advisors, clinicians, engineers, consultants, regulators, IP attorneys, TTOs, and Government policymakers.

Manipal - Government of Karnataka Bioincubator provide facilities based on the requirements of the start-up including, Dedicated Incubation Facility, Shared Incubation Facility, Tissue culture, and Microfluidic Facility, Microbiology facility, Common Instrumentation Facility, Dedicated labs with Instrumentation Facility, Dedicated Offices, Plug and play Workstations, Class 100 Clean Rooms, Fabrication room, Prototyping facility, Electronic testing Facility, analytical testing facility and provide linkages to MAHE Facilities including Primary, secondary and tertiary Hospitals, Engineering workshops, Central Equipment Facilities, Mentors & Medical Experts, Animal House Facility, Biobank and Medical Facilities, Testing Facilities & Clinical Trial Supports, Library, Resources, and other MAHE Facilities.

Our Mission is to create an excellent entrepreneurship ecosystem with professional services that aid the transformation of innovative ideas to scalable technology and knowledge-based enterprises. We facilitate collaborations for inter-disciplinary research and technology development. We provide in-house seed funding for feasible ideas/products/proposals and also arrange for funding from external agencies, angel investors, and venture capitalists.

We also have Preincubation for early-stage innovators with just an idea of innovation, early development stage of their prototype, which needs further support to reach the Proof of concept stage, initial validation, or primary market and business analysis of their product, process, or service. Our Incubation programs support Proof of concept (PoC), Prototype development, Refinement, validation, Ethics committee Clearance, Pre-Clinical and Clinical Trials through our own facility and through the partners. So Innovators with different technology readiness level (TRL) are supported by Bioincubator, which make their journey easy and resolve them to move to commercialization Stage.

Applications are open 365 days, and selection meetings are happening every month. Manipal - Government of Karnataka Bioincubator invites all innovators to be a part of our multidiscipline ecosystem and choose the right program that fits your technology development. Please submit your Expression of Interest for incubation through the application available on the website of Manipal GoK Bioincubator.



#### MICROGO LLP

7, Golden Jubillee Biotech Park (Inside SIPCOT) 4th Mian Road, 2nd cross road, Chennai 603103

**Tel** : +91-7598090150 | 7010053867

**Email** : staph@microgo.in

Website: www.microgo.in

**Contact**: Sujitha Balu, Lead, Sterilization Research

**Product Details:** Infectious diseases are considered to be third among top ten factors for human mortality. In addition, increasing global travel, climate change and emergence of antibiotic resistance organism (super bugs) pose a serious threat to our quest towards curtailing infectious diseases. These new challenges require newer approaches and necessitate strong action. We present an array of products developed by MicroGO centred around Hygiene, Sustainability and Digitalisation.

**Company Profile:** At MicroGO, we enable the power of microSWACHHTA by prevention technologies. While HYGIENE in the center-focus we work in food-water-health industry. All our products have the common fundamentals, defined by SAFE-SAVE-DIGITAL or SSD. We must keep lives SAFE- SAVE valuable resources and Digitalise Hygiene. Founded in 2016 by Dr Rachna Dave (ex-scientist at Bhabha Atomic Research Centre), the compnay is based out of Chennai, Tamil Nadu. We are supprted by BIRAC, IKP- Hyd, DST, Gates Foundation and TN startup. We are a DIPP approved Startup with Tax benefits from the IMB. It has filed 7 Patents (granted/applied for) and 8 Trademarks.



#### **MIZORAM UNIVERSITY BIONEST CENTRE**

MZU BioNEST, Mizoram University, Aizawl, Mizoram

**Tel** : +91-9366587380

**Email**: mahruaia123@gmail.com

Website: www.mzubionest.org

**Contact**: Dr. H. Lalhruaitluanga, Director

**Product Details:** Our Exhibitors will be displaying products from different entrepreneurs in the state. These exhibits are mostly from the agritech and bio-energy domains and are in various stages of development

**Company Profile:** Mizoram University BioNEST is a biotechnology incubator to assist start up enterprises in accelerating development and commercialization of new technologies funded by the Biotechnology Industry Research Assistance Council, Department of Biotechnology (DBT) to provide infrastructure and scientific support to researchers, investors and entrepreneurs looking to transform innovations in life sciences, medical technology and environmental sciences into viable and successful enterprises. (www.mzubionest.org)

Mizoram Science, Technology and Innovation Council (MISTIC) is an autonomous Government Institution under Department of Science and Technology, Govt. of Mizoram whose mission is to dentify areas in which Science, Technology and Innovation can be utilized for the achievement of the Socio-Economic objective of Mizoram and in particular, its objectives of tackling the problems of backwardness, unemployment and poverty, and of addressing itself to the problems of rural areas, and under-privileged section of the society.



# NATIONAL IMMUNOGENICITY AND BIOLOGICS EVALUATION CENTRE (NIBEC), IRSHA: BVDU

IRSHA, Bharati Vidyapeeth Educational Campus, Pune Satara Road, Pune - 411 043 Maharashtra, INDIA

**Tel** : +91-9970178555

**Email** : director.irsha@bharatividyapeeth.edu

Website: www.irsha.bharatividyapeeth.edu

Contact: Dr. A.C. Mishra, Director

**Product Details:** National Immunogenicity and Biologics Evaluation centre (NIBEC)

**Company Profile:** National Immunogenicity and Biologics Evaluation centre (NIBEC) is placed in Interactive Research School for Health Affairs (IRSHA) a constituent Unit of Bharati Vidyapeeth (Deemed to be University) (BVDU). The facility was E-inaugrated by Dr Renu Swarup, Secretary, DBT on 4th September 2020. NIBEC with a dedicated area of about 10,000 sq. ft was established with a grant of 16.0 cr received under "Innovate in India (i3)" program of Department of Biotechnology (DBT), Government of India for evaluation of the immunogenicity of vaccines in a record time of just a year. Currently NIBEC has received a grant of ---Cr for ....Under... scheme of DBT in ---- 2021.

It is well equipped facility with BSL-3+, 4 BSL-2 and 10 BSL 1 laboratories and is GCLP and Biosafety compliant.

NIBEC was established with the following objectives

- Establishment of GCLP laboratories for immunogenicity testing of vaccines and antiviral candidates. This would include setting up of dedicated Biosafety 2 and 3 laboratories which should be compliant to both Biosafety and GCLP requirements.
- Acquisition, standardization, validation and finally accreditation of the tests required for immunogenicity testing of vaccines and antiviral assessment
- Creation of self-sustainable business model, capable of absorbing new technologies and maintain pace with newer developments in the field.



#### **Current activities**

Following the sudden emergence of Covid-19 pandemic in India, we isolated several strains of SARS-CoV2 viruses, characterized them, developed critical tests like PRNT, Micro neutralization, IgG & IgM Elisa, antiviral assessment of drug, chemical disinfectants, porous and non-porous antiviral coated surfaces.

We already supported several industries by evaluation of their clinical samples of vaccine candidates and also for development of hyper immune serum in equines.

We work with major vaccine manufacturers like Serum Institute of India, Pune, Bharat Biotech International Limited, Hyderabad,

Indian Immunologicals, Hyderabad, Cadila Ahmedabad, Gennova Limited, Pune, Engene Limited, Pune. For antiviral evaluations, we work with IITs, Pharmacy colleges, research institutions and major healthcare companies like Godrej, ITC, Wipro etc. We have also entered into an agreement with International Vaccine Institute, South Korea to work for a multi country clinical trial of Chikungunya vaccine.

In true sense, this project is a positive step towards meeting the clarion call given by our Hon prime Minister "Atmanirbhar Bharat".



## NATIONAL INSTITUTE OF BIOMEDICAL GENOMICS

Kalyani, West Bengal -741251, India

**Tel** : +91 9448479632 | +91 33 6642 2111

**Email** : sdas@nibmg.ac.in

Website: www.nibmg.ac.in

**Contact**: Prof. Saumitra Das, Director

**Company Profile:** The National Institute of Biomedical Genomics (NIBMG) has been established as an autonomous institution by the Government of India, under the aegis of the Department of Biotechnology. This is the first institution in India explicitly devoted to research, training, translation & service, and capacity-building in Biomedical Genomics. It is in Kalyani, West Bengal, India, near Kolkata.

The research focus of the institute is to understand the molecular basis of disease using genomics and integrative biology, as well as functionalization of genomic leads. Such knowledge is translated for enhanced prediction, prevention and cure and also provides us with the insight into mechanism of disease development and progression. NIBMG laboratories are equipped with high end instruments and state of art facilities. The huge 30 acre campus of the Institute has academic blocks, student and faculty housing, guest houses, conference centre and other facilities.



## **NEXTEC LIFESCIENCES Private Limited**

2/79 Vijay Khand, Gomtinagar, Lucknow 226010

**Tel** : +91-9335819609 | 0522 4007058

**Email** : Ranjanasrivastava5@gmail.com

Website: www.nexteclifesciences.in

**Contact**: Dr Ranjana Srivastava, Director

**Product Details:** TBNidan is a novel test for rapid and accurate detection of Mycobacterium tuberculosis specific DNA sequence (Nextec IPR) in body fluids of TB patients. The kit contains reagents to amplify M. to specific DNA and a specific designer probe hybridizing to amplified amplicons resulting in fluorescence emission which can be detected online. The amplification is enzymatic and isothermal (39°C) using recombinase polymerase reaction (RPA). The test detects as low as 10

bacilli within 20 minutes in the sample without false positives. Clinical evaluation with 250 samples of sputum & cerebrospinal fluid reported 100% specificity and >94% sensitivity.

**Company Profile:** Nextec Lifesciences Private Limited (NLPL) was founded on 17th July 2012 by Dr Ranjana Srivastava and Dr Brahm S.

Srivastava, scientists retiring from CSIR-Central Drug Research Institute, Lucknow. The company (CIN Number U24233UP2012PTC 051518) has its registered office at 2/79 Vijav Khand, Gomtinagar, Lucknow. The website of company www.nexteclifesciences.in Nextec strongly believe in education, training and community outreach. To that end, we are infusion of Biotechnology education for high school to undergraduates and provide hands-on training for biotechnology aspirants from school to post graduate level, introduce concepts of biotechnology entrepreneurship, translational iotechnology from idea to 1- 3 March 2021; Digital Platform product to feed the national biotech industry. The company

focus on development of diagnostic assays for infectious diseases, biomarkers and diagnostic/ screening assays for lifestyle related and life threatening diseases, Biosensors, newer screening system solutions for novel antimicrobials, anticancer and against other diseases.



The company started with a lab located in Biotech Park, Lucknow. NLPL received financial support of Rs 37.10 lakh in 2015-2017 as Biotechnology Ignition Grant (BIG) from BIRAC (Biotechnology Industry Research Assistance Council), Department of Biotechnology (DBT, Govt of India) on "Introduction and development of a new DNA based kit for Early and accurate diagnosis of Tuberculosis" to demonstrate Proof of Concept and a prototype of diagnostic kit for early and rapid diagnosis of TB. The test relies on amplification of M. to specific sequence by an isothermal recombinase polymerase amplification and its online detection within 20 minutes of reaction. The primers and probes are IPR of NLPL. Nextec received recognition as All

India Women Entrepreneurs Award (Delhi Management Association), BIRAC TiE WInER award 2019, Uttar Pradesh Best Brand Award, 2019.

The company has been recognized as Start Up (Certificate No.:DIPP2474) by Department of Industrial Policy and Promotion.



# **NOVEL TECHSCIENCES (OPC) PRIVATE LIMITED**

37-B, Darga Road, 1st Floor, Kolkata-700017, India

**Tel** : +91-9007600767 | +91-33-22903400

**Email**: info@noveltechsciences.com

Website: www.noveltechsciences.in

**Contact**: Shabaaz Solanki, Director

Product Details: In-Silico Protein Engineering / In-Silico Drug Discovery

**Company Profile:** Novel Techsciences is a company in the field of advanced sciences. We research, develop and promote solutions which propel technological advancement for the benefit of nature and humanity.

We are founded with a mission to research, develop and promote novel solutions within Biotechnology and Information Technology domains. Our present focus remains limited to Computational Biology & Bioinformatics and Machine Learning & Deep learning sub-domains. We are also active in the Cloud High Performance Computing segment and are actively looking for opportunities in Quantum Computing.

**Who:** We are a startup active in the technological domains of Systems Biology, Artificial Intelligence and High-Performance Computing

**What:** We research, develop and promote solutions within these domains which are sub-divided into further divisions within our portfolio

**How:** We leverage on our knowledge of Computational sciences, Software technology and Computing power to research and develop solutions catering to diverse segments



## **NUTRITION DYNAMIC FOODS LLP**

403, Baleshwar Avenue, Above Axis Bank, S G Highway, Bodakdev, Ahmadabad 380 054

**Tel** : +91-7383547240

**Email** : Ad.ndfg@gmail.com

Website: Nutridynamic.co.in

**Contact**: Arpita Doshi, Partner

#### **Product Details:**

## Dudhi Jaljeera

**Ingredients:** Freeze Dried Vegetables (Bottle Gourd, Mint), Lemon, Black Pepper, Rock Salt

Dudhi - A Local Gujarati Name of Bottle Gourd is 96% of Moisture Content is very low in fat and is very well known its effectiveness in Diabetes and heart Diseases.

## **How Ingredients Helps**

**Bottle Gourd** is rich source of Polyphinol Cinnamic Acid (C9H8O2) that aids in Diabetes Regulation.

Mint contains Cafic Acid (C16H1809) that works as an anti-inflammatory agent.

**Black Pepper** contains Alkaloids Piperine (C17H19¬NO3) that regulates digestive enzyme in order to be effective on Stomach.

#### Amrit Jara

**Ingredients:** Aamla (Indian Gooseberry), Sunthi (Dried Ginger), Turmeric, Lemon, Kokum, Rock Salt

NDF Amrit jara combines Four herbs to give a great cup of Anti-Oxidants for cellular health that prompts healthy aging.

#### **How Ingredients Helps**

**Aamla (Indian Gooseberry)** contains Anti-oxidant Ascorbic Acid (C6H8¬O6) that aids in tissue repair

**Dried Ginger** contains 6' Shogaols (C17H24O3) That have shown Anti-Tumour properties.



Turmeric contains Curcumin (C21H 20O6) that act as natural Anti Biotic.

Kokum contains Anti-Oxidant Garcinol (C38H50O6) that works as Anti-Inflammatory.

## Veggie Oats Soup

**Ingredients** Freeze-Dried Vegetables (Drumstick, Bottle Gourd, Spinach), Onion, Garlic, Oats, Rosemary and other spices.

A Clear green soup NDF Veggie Oats Soup with goodness of three Super foods Moringa, Bottle Gourd, Spinach with Super Herb Rosemary and oats to fuel body when lazy to cook.

#### **How Ingredients Helps**

**Drumstick** Pods contains Natural Glycosides called Niaziridin and Niazirin (C14¬H17NO5) reflects potential antibiotic towards Gram Negative bacteria.

Spinach contains Chlorophyll (C55H72O5N4Mg) pigment aids in wound healing

**Oats** contains Dietary fibre called Beta Glucan (C18H32O16) imparting cardiovascular protection.

**Company Profile:** Nutrition Dynamic Foods LLP - NDF is an Ahmadabad based company that manufactures 100% Plant based Innovative Flavours Functional Beverage Premixes using Freeze dried Vegetables, herbs and spices for Millennial Baby Boomer Generation, dwelling in urban topography suffering with Inflammatory Non -Communicable Diseases like Diabetes, Hypertension, cardiovascular diseases, obesity, Cancer and Mental dieses accelerated by stress and dietary choices.

Mrs. Arpita Doshi the brain behind NDF Products by education is a Microbiologist, Biotechnologist (UK) and certified Lean Six Sigma found the Niche gap in between food and nutraceutical industries that laid the foundation stone Nutrition Dynamic Foods LLP. Ms. Doshi Herself had been the victim of inflammatory non communicable dieses and after spending 26 days on ventilator she evaluated that problem which she is trying to solve needs a solution that can reach trillions of people globally.

In 2015 the Ideation happen and by 2019 post attaining patent published status Beta testing of NDF Products was executed in 2019 at Ahmadabad and on ecommerce platform.

First recognition in the form of award was attained at IFCON held by AFSTI at CFTRI Mysore. Post this recognition various other organization have bestowed many other awards. NDF Products are FSSAI Licensed, APEDA Registered and presently perusing to attain HALAL Certification. Presently a 100 KG Production capacity is looking for partnership that helps in scaling up.



## **PGIMER**

3243/21-D Chandigarh

**Tel** : +91 9872665539

**Email** : r\_vg@yahoo.co.uk

Website: www.krimanshi.com

**Contact**: Dr Vikas Gautam, Professor

**Product Details:** Sepil is an HERBAL ANTISEPTIC effective in any kind of wound infections including patients suffering from Diabetes and Burns. It's effective against infections caused by either Gram-positive or Gram-negative infections like Staphylococcus aureus, E. coli, Klebsiella, Acinetobacter, Pseudomonas etc. There are 12 strengths of this product that includes its effectiveness in treating Non-Healing Ulcers like bedsores of 3-4 months duration in which all modalities including systemic antibiotics had failed, and Anti-Biofilm activity as seen after use in the patients at PGIMER, Chandigarh.

## 12 Strengths of Sepil:

- Polyherbal formulation (All the herbs welldefined in Ayurvedic Pharmacopoeia of India)
- No cytotoxicity (Cytotoxicity Assay at National Research Institute & at PGIMER, Chd)
- No allergy
- Promotes wound Healing (Assay performed at PGIMER, Chd)
- Safe to use in Pediatric age group (at any conc.)
- No chances of contamination with Pseudomonas spp.
- No chances of contamination with Burkholderia spp.
- therefore, No contamination of SEPIL leading on to Sepsis in a patient
- Has an intrinsic Analgesic effect (Ref: Ayurvedic Pharmacopoeia of India)
- No Chemical Burns caused
- No preservatives/emollients/dressing adhesives added in the oil
- Anti-Biofilm activity



**Company Profile:** Sepil is the Registered Trademark for this polyherbal formulation (registered in August 2020). Product is ready to Launch as License already obtained for this polyherbal formulation. This product sees the dawn of the day after 15 years of extensive research and evaluation as per the standards, processes and guidelines of the modern medicine. This is a

research product from PGIMER, Chandigarh. During the preliminary clinical results, the results are so encouraging that Clinicians are asking for the availability of Sepil (evidence in the attached video where presentation made by the Head of the Dept, Surgical Speciality, PGIMER, Chandigarh about its clinical use).



#### PRAANAPOORNA COLLECTIVE LLP

431 A, 3 cross, 9 main, Ideal Township, Rajarajeshwari Nagar, Bangalore - 560098

Tel : +91 9900131352 | +91 6361675254

Email : Smitha@praanapoorna.com

Website: www.praanapoorna.com

**Contact**: Smitha Kamath, Founding Director

**Product Details:** Praanapoorna offers a range of natural cleaners, Lab-tested products with 99.99% disinfectant efficacy. 100% natural, Biodegradable and Lab tested.

#### 100 % Natural Product List - B2C and B2B

- » Disinfectant Natural Home Cleaners
  - Floor cleaner & Toilet Cleaner
  - Anti- Bacterial Soapnut detergent, Kitchen Degreaser / scrub
  - Surface /multipurpose disinfectant wipe
  - Fruit Veggie wash
  - Garden and compost spray
- » Mosquito repellent Spray Daily / Weekly as Fumigation alternate
- » Odour Control, STP & Garden Compost Area Spray
- » Personal Care
  - Shampoo, Handwash,
  - Skin Butters, Cold rub, Hair mask, Oils, Babycare
- » Pet Care
  - Waterless shampoo -fresh coat, pest free, Spray
  - · Paw butter, Shampoo



**Company Profile:** Praanapoorna aspires to revolutionize the way we clean our surroundings while we maintain our immunity with effective micro-organisms in our living spaces and for a green and healthy planet.

With Ongoing product engineering, we create new natural alternates with locally available raw materials to replace the Petro - chemical based products. Obtain necessary Industry Certifications, licenses, Lab Tests and creating test standards.

We aim to provide Affordable and Accessible Cleaners By building a circular economy with zero waste and energy manufacturing process, adopting Distributed Consumer - Producer Community production model.

Natural Disinfectant cleaners are non - toxic, highly effective and safe.

Reduced Water Usage - Consumes less water for wash and washed water can be released to plants directly without any treatment.

Avoid frothing of water bodies - Eliminate chemicals in living spaces and when our effluent/waste water enter's water bodies.

Safe and Natural fogging for mosquito repellent. It has inherent "insect repelling capabilities". Controls unpleasant odor in composting areas, STP Areas and recycled grey water.



## PSG-SCIENCE & TECHNOLOGY ENTREPRENEURIAL PARK (PSG-STEP)

PSG College of Technology Coimbatore - 641 004 Tamil Nadu, INDIA

**Tel** : +91 9952427232 | +91-422-4363300

**Email** : step@psgtech.edu

Website: www.psgstep.org

Contact : Dr K Suresh Kumar, Executive Director

Company Profile: The PSG-Science & Technology Entrepreneurial Park (PSG-STEP) was established in 1998 with support from Department of Science & Technology, Government of India, IDBI and ICICI to promote technology-based enterprise in the areas of Software, Electronic Products, Hi-Tech Mechanical Products, Eco friendly Textile Products, Biotechnology and Nano Technology using the core strengths of PSG College of Technology. PSG-STEP plays a critical role in creating an enabling eco-system to promote innovation and entrepreneurship among the students, faculty, and researchers and for the people from the community.

PSG-STEP had established incubation centers in the areas of Information Technology, Electronics, Nanotechnology, Biotechnology and Centre of Excellence in Advanced Technologies with the support from the government agencies viz., National Science & Technology Entrepreneurship Development Board [NSTEDB], Department of Science & Technology, Biotechnology Industry Research Assistance Council [BIRAC], New Delhi, Ministry of Electronics and Information Technology [MeitY], Government of India. The total area marked for the operations of the incubation centre is about 100,000 sq.ft. PSG-STEP has so far supported more than 250 startups and 80 startups are currently operating from the incubation centre.

#### **PSG-STEP: BioNEST**

The PSG-STEP:BioNEST Bioincubation Centre housed at PSG College of Technology with the support from Biotechnology Industry Research Assistance Council [BIRAC], Government of India under Bioincubators Nurturing Entrepreneurship for Scaling Technologies [BioNEST] Scheme. PSG-STEP:BioNEST leverages the strengths and resources of Department of Biotechnology, PSG College of Technology, Coimbatore with the aim of accelerating biotechnological product development and promoting startups in Healthcare, Industrial, Environmental, Food and Agricultural Biotechnology. The Bio-incubator provides infrastructure, funding, technical mentoring and facility product prototyping. instrumentation to help in scaling and commercialization. The state of art facility fosters prospective bio-entrepreneurs and biotech startups to make their dreams a reality. PSG-STEP: BioNEST has been recognized as one of the Associate Partner for Biotechnology Ignition Grant (BIG)



initiative of Biotechnology Industry Research Assistance Council (BIRAC), New Delhi. The role of the BIG Associate Partner is to create awareness on Biotechnology Ignition Grant (BIG) through outreach programs.

#### **Establishment of SPARSH centre at PSG-STEP: BioNEST**

The PSG-STEP: SPARSH Centre supported by Biotechnology Industry Research Assistance Council (BIRAC), New Delhi intends to create a pool of social innovators in the biotech arena who will identify the specific needs and gaps in Ageing & Department of Waste to Value. The programme is supported by BIRAC, Department of Biotechnology, Govt. of India for the period of 3 years. Under each thrust area, 5 fellows will be selected and supported under the SPARSH programme.

The first cycle of the SPARSH Fellowship under the theme "Ageing & Health "has been started from August 10, 2020 in PSG-STEP BioNEST. Five fellows have joined, and the activities has been started virtually. PSG-STEP organized workshops and programs for the fellows with the help of Geriatric Care Centres and Experts in Ageing from PSG Institute of Medical Sciences & Research and other Geriatric Care Centres.

## Partnering with PSG Center for Biomedical Innovations (CBMI)

The PSG Centre for Biomedical Innovations (PSG CBMI) at PSG Institute of Medical Sciences & Research (PSG IMS&R) enables co-creation between startups, academia, and healthcare industry with the right kind of clinicians, researchers, and patients. The PSG CBMI shall lead and drive innovation activities – strategically and in day-to-day work, in all settings, at all levels. The Centre shall lay the methodical way of handling risks and uncertainties to achieve rapid and continuous translational innovation – from identification of needs and opportunities to clinical and commercial full-scale implementation.

The PSG CBMI will address the following unique challenges in the process of idea to prototype of medical technologies and devices:

- Validating the ideas for its use case.
- Validating the ideas in terms of technical feasibility.
- Access to facilities related to health care research and product development.
- Ethical committee clearances and the clinical trials.
- Good practices to be adopted during the trials and concerns to be addressed.
- Certification involved in case of Medical Devices.
- Involvement of medical practitioners during the stages of product development.
- Cost involved in the process of product development.



# **RAJIV GANDHI CENTRE FOR BIOTECHNOLOGY (RGCB)**

Thiruvananthapuram 695014

**Tel** : +91 956-765-5337 | 0471-2529400

**Email** : harikumar@rgcb.res.in

Website: www.rgcb.res.in

Contact: Dr K.B.Harikumar, Scientist

Company Profile: RGCB is a premier research organization of Department of Biotechnology (DBT), Government of India and research programs are now designed clusters of investigations on the central theme of disease biology. All RGCB research programs can now be designated to three program themes: Chronic Disease Biology, Tropical Disease Biology and Disease Biotechnology, RGCB currently functions from three campuses. The main campus is located at Jagathy in Thiruvananthapuram where the bulk of our discovery research programs are implemented. The second campus located at the KINFRA Park in Thiruvananthapuram functions as the transit facility for the Bio-Innovation Center where RGCB's core Bio-Imaging, Genomics and Laboratory Medicine & Molecular Diagnostic core facilities are located in addition to laboratories for Chemical Biology, and Tropical Disease Biology. The third campus located in Kochi is called the Bio-Nest, a setting for translational biotechnology, including expert and high technology resources for potential clients and customers, platforms for productive and sustainable partnerships with biotechnology, life science, medical and pharmaceutical besides opportunities for consultancy, contract research and commercialization of potential products.

#### **Major achievements:**

• A new plant derived compound Utroside-B discovered by RGCB received U.S. FDA Orphan Drug Designation in the Treatment of Liver Cancer: Cancer Biology group of RGCB has identified Utroside-B as a potential anticancer agent against liver Cancer. Uttroside-B has shown ten times the potency against HCC as compared to the current standard of care drug in early pre-clinical investigation. Currently, there are only two approved first-line therapies for HCC. The compound has been licenced to multinational company Q-Biomed for further development in a joint initiative with RGCB and Oklahoma Medical Research Foundation (OMRF), USA. RGCB has also received U.S. Patent for this molecule, "Uttroside-B and Derivatives Thereof as Therapeutics for Hepatocellular Carcinoma".



- RGCB develops COVID-Anosmia checker: Loss of smell is reported as a major symptom of COVID-19, however, a precise olfactory testing tool to identify COVID-19 patient is still lacking. To quantitatively check for the loss of smell, we developed an odor strip, "COVID-Anosmia checker", spotted with gradients of coffee and lemon grass oil. We coupled this tool with a mobile application, which takes the input response from the user, and can readily categorize the user in the appropriate risk groups. Loss of smell can be used as a reliable marker for screening for COVID-19. Our tool can be used for first-line screening to trace out COVID-19 infection effectively. It can be used in difficult to reach geographical locations.
- Development of Q-line CoVID-19 RT-PCR kit: We have developed Q-Line® Molecular nCoV-19 RT-PCR Kit is designed to detect Novel Coronavirus (nCoV-19) based on single tube multiplex real-time RT PCR (rRT-PCR) assays in respiratory and serum specimens. The developed kit was validated and approved by National Institute of Virology-ICMR, Pune with the sensitivity of 98.7% and specificity of 100% for commercial use. As far as now, we have sold more than 1.5M test kits to CoVID-19 screening centers both government organization as well as private hospitals.
- Development of Q-line Viral RNA extraction kit: We have developed Viral RNA extraction method using silica column chemistry for the isolation of highly pure RNA from CoVID-19 patient sample that will be used for downstream process such as RT-PCR analysis for screening the CoVID-19. The silica column-based RNA extraction system is lysis enzyme proteinase-K free and it can be performed in room temperature that will help and increase the users experience which is not possible in other extraction methods available in the market. Further, we have designed a lysis and working reagents specific to the CoVID-19 viral RNA isolation from the nasal-swap samples and showed better viral RNA quality and quantity as compared to the other available extraction methods. The developed kit was in-house validated at RGCB and performed well as compared to gold standard methods. Further, our viral RNA isolation kit was validated and approved by NIV-ICMR with 98% analytical performance for commercial use.



#### REGIONAL CENTRE FOR BIOTECHNOLOGY

NCR Biotech Science Cluster, 2nd Milestone, Faridabad-Gurgaon Expressway, Faridabad - 121 001

**Tel** : +91-8130325420 | 0129-2848843

**Email** : divya.chandran@rcb.res.in

Website: www.rcb.res.in

Contact : Dr. Divya Chandran, Associate Professor

**Product Details:** Institution of National Importance

**Company Profile:** Regional Centre for Biotechnology (RCB) is an Institution of National Importance, created by an Act of Parliament, established by the Government of India through the Department of Biotechnology (DBT) under the auspices of UNESCO. RCB has emerged as a pioneering institute for research in multiple disciplines under the broad domain of Biotechnology and is defining new horizons in providing world-class education, training and research at the interface of multiple disciplines for the benefit of mankind.

The scientists at RCB work at the interface of multiple disciplines in the areas related (but not limited) to structural biology, molecular medicine, infectious disease biology, agricultural biotechnology, systems and synthetic biology, and cancer & cell biology. RCB is equipped with a state-of-the-art research infrastructure for providing a strong research-based learning environment. It boasts of state-of-the-art research laboratories at par with the global standards.

Research-based learning is the hallmark of RCB academic programs. The programs provide extensive learning opportunities in the broad field of life sciences and biotechnology though rigorous classroom teaching and hands-on laboratory experiments along with an opportunity to work in a research lab under the supervision of a faculty in an area of mutual scientific interest.

RCB has a strong commitment to exploring new frontiers, furthering science and connecting revolutionary areas of Biotechnology through cutting-edge research. Its Advanced Technology Platform Centre (ATPC) is a highly sophisticated instrumentation facility comprising of high throughput technology platforms. These include Genomics, Proteomics, Mass Spectrometry, Molecular Interaction, Microscopy, and the Animal Experimentation Platforms. The microscopy platforms include Electron Microscopy and Super Resolution Confocal Microscopy. The BSC Bio-NEST



Bio-incubator (BBB) at RCB has been established in association with BIRAC that links promising research outcomes to commercialization by nurturing technology development in the broad area of biopharmaceuticals. These facilities at RCB provide an exceptional environment to our students with exposure to high-end technology and entrepreneurship opportunities.

The Regional Centre for Biotechnology Act 2016 empowers RCB to grant higher degrees in frontier areas of biotech sciences. The RCB Act was passed by the Parliament of India in 2016 after which RCB was recognized as an Institution of National Importance at par with the IITs, IISERs etc.

## RCB has the following academic programs:

PhD Program in Biotechnology: RCB offers a PhD program in Biotechnology to students holding a post-graduate (or an equivalent) degree in any field of science, medicine or engineering, and having interest to work at the interface of multiple disciplines in the areas related to Biotechnology.

**PhD (Integrated) Program in Biotechnology:** RCB introduced a PhD (Integrated) Program (I-PhD) in Biotechnology in 2018-19 with focus on research-based learning. The program in its first year provides extensive learning opportunities in the broad field of life sciences and biotechnology through rigorous class room study and hands-on laboratory experiments.

**PhD Programs in Biostatistics and Bioinformatics:** RCB offers interdisciplinary PhD programs in Biostatistics and Bioinformatics supported through a collaboration with the global pharmaceutical giant, GlaxoSmithKline Pharmaceuticals India Private Limited. (GSK). These programs are run as per RCB statutes, ordinances and regulations.

**MSc programs:** Rajiv Gandhi Centre for Biotechnology (RGCB) in Thiruvanathapuram is a recognized centre of RCB offering Master's degree program in Biotechnology with specializations in Disease Biology, Genetic Engineering, or Molecular Diagnostics and DNA profiling.

## **Academic Programs at RCB's Recognized Centers:**

RCB has given academic recognition to the various institutions of excellence as per Clause 10(1) f of the RCB Act and RCB Ordinance for their academic programs. Students admitted to these programs are registered at RCB for their degrees.



## REVY ENVIRONMENTAL SOLUTIONS PRIVATE LIMITED

313-314, Siddharth Upscale, Vasna Road, Vadodara - 390007, Gujarat

**Tel** : +91-9824519652 | 8156009652

**Email** : mail@revy.co.in

Website: www.revy.co.in

**Contact**: Raineesh Prasad, Director & CEO

#### **Product Details:**

- REVY ANB (Seed Biomass for Anaerobic Plants)
- REVY S (Anaerobic Granulated Sludge)
- REVY AER (Aerobic Biomass)
- REVY BGA Biomass Growth Activator
- REVY BGE Biomass Growth Enhancer
- REVY BGS Biomass Growth Stabilizer
- REVY PHC pH Correcting Formulations

**Company Profile:** REVY is providing in situ solutions in waste management to several industries using its optimized Waste Water Treatment Technology (WWTT). REVY develops "Designer Bio-culture" using IP protected combinations of bacteria/other microorganisms in the form of 'Anaerobic Granulated Sludge', 'Aerobic Biomass' and 'Biomass Growth Enhancement Formulations (BGEF)' that treats hard effluents like petroleum, chemicals, dye etc. converting waste into re-usable products such as Bio-methane and Bio-Energy.

Our Seed Biomass supports faster operation of Aerobic/Anaerobic reactor fixing problem in-situ and finding solutins for ailing units in sector agnostics manner.

Our Granulated Sludge can withstand higher loading rate with a capacity to reduce higher COD/BOD load while giving better biogas yield in comparison to flocculent systems.

Our BGEFs ensure nutritional requirement of the biomass to remain healthy and active through continuous enhancement of MLVSS.



## RUHVENILE BIOMEDICAL OPC Private Limited

Plot-8, OCF Pocket Institution, Sarita Vihar, New Delhi - 110076

**Tel** : +91 783 887 4123

**Email** : Ruhvenile@gmail.com

Website: www.ruhvenile.com

**Contact**: Dr Rajkumar Halder, CEO and Founder

#### **Product Details:**

#### **Developed:**

• Indigenous writable-erasable coating for everyone.

Paddy stubble decomposing at open conditions with Indigenous eco-friendly formulations

## And Developing:

- Truly indigenous Biodegradable plastic from biowaste
- Affordable oral cancer detection kit
- Drug Discovery on antimicrobial resistant strains

**Company Profile:** Ruhvenile Biomedical is a start-up company, recognized by Government of India (DIPP 29327), having R&D Centre in Sarita Vihar, New Delhi -76, India

**People:** 12+ people are working in the company

**Grant received:** BIRAC - BIG and BIRAC- GG grants are awarded for excellent innovative work.

Patent: One Indian Patent has been filed and more are on the way.

**Trademark:** Ruhvenile®, ADEMI® (All Day Express My Imagination) Paint/slate, LivePeel®, Dcompoz®, RuhCare®

**National Collaborator:** International Centre for Genetic Engineering and Biotechnology (ICGEB), New Delhi, India

**International Collaborators:** 1) RNA Smart Health, Paris, France, 2) Cothera LLC, California, USA, 3) Dante Technologies, LLC, USA



## SALCIT TECHNOLOGIES PRIVATE LIMITED

Flat 2408, Sai Dream Castle Apartment, Nizampet Road, Hyderabad - 500090

**Tel** : +91- 9945399533 | 040 40068044

**Email** : svn@salcit.in

Website : https://salcit.in/

**Contact**: Narayana Rao Sripada, Founder / Director

**Product Details:** Swaasa artificial intelligence platform as a screening tool and diagnostic aid in the assessment of respiratory diseases.

**Company Profile:** Salcit technologies had developed a patented Swaasa AI Platform that brings the functionality of spirometry without the constraints of time, space, specialized equipment and trained professionals. This core ability allows the solution to be rapidly deployed at scale to screen, diagnose and monitor millions of people suffering from the Big Five respiratory diseases. India has a disproportionately high burden of chronic respiratory diseases (18% of world population Vs. 32% of chronic respiratory disease load).

The Swaasa platform is a revolutionary approach to respiratory healthcare. The Swaasa Al platform is cloud-based and non-invasive device intended to acquire, analyze, and store cough sounds and breath sounds along with symptoms. The device is used as a screening tool and diagnostic aid in the assessment of respiratory conditions when used on adults (18 years of age and over) under the supervision of Trained respiratory therapist or Nurse. The device provides an informational report which is intended to be reviewed by a qualified healthcare practitioner (Pulmonologist or General physician).



## SHAIVAA ALGAETECH LLP

185, JARIWALA COMPOUND KHATODRA SURAT

**Tel** : +91-7769040183 | +91-261-2633738

**Email** : yjariwala@shaivaa.com

Website: www.shaivaa.com

Contact : Yashraj Jariwala, CEO

Product Details: Astivaa- Natural Astaxanthin microalgal biomass

Astaxanthin is a naturally occurring high-value ketocarotenoid pigment with excellent antioxidant effects, belonging to the xanthophyll group of carotenoids, or the oxygenated carotenoids. The hydroxyl and keto functional groups present in the ending ionone ring of astaxanthin are responsible for its uniquely powerful antioxidant activity. They differ from other antioxidants in its ability to penetrate the blood brain and retina barriers. Therefore, it is believed to protect the brain and nervous system from neurodegenerative diseases (e.g. cerebral thrombosis and stroke) and aging.

**Company Profile:** Shaivaa Algaetech is a micro-alga based Biotechnology Company in Surat, Gujarat. We specialize in commercial scale cultivation of micro-algal species using our high standard, cost-effective state of the art technology. We take pride in our commitment to produce premium quality micro-algal active ingredients for use in food, nutraceutical, health and cosmetic products that augment human well-being and improve the quality of life.

Shaivaa Algaetech envisions tackling one of the biggest challenges of providing sustainable food and nutrition globally using one of the most primitive forms of life on earth- Micro-algae. We aim to become a leader in the global algae industry by working tirelessly towards the common goal of - Healthy living for all!



## STARTOON LABS PRIVATE LIMITED

Plot No. 10, First floor, Paigah Colony, Sardar Patel Road, Secunderabad - Telangana

**Tel** : +91-9133925836 | 8790896481

**Email** : suresh@startoonlabs.com

Website: www.startoonlabs.com

**Contact**: Suresh Susurla, Managing Director

**Product Details:** Pheezee is India's first physiotherapy assessment tool which can monitor and track recovery if physiotherapy sessions. Pheezee is a wearable device which measures two important parameters – mobility and muscle activity. Pheezee can be used by the physiotherapists in the clinics/hospitals/rehabilitation centers. Pheezee can also be used as a tele-physiotherapy platform to enable patients continue their therapy under expert guidance even from home. Pheezee is suitable for ortho, neuro and spinal cord injuries.

**Company Profile:** Startoon Labs is a medical devices company headquartered in Hyderabad, India, having its core activities as R&D and manufacturing of products. The Company was founded by Alumnus of IIT and IIM with a vision of building world class solutions in India for the world in the field of healthcare. Startoon Labs is incubated by WE Hub, Govt. of Telangana and Supported by DBT, Meity, Govt. of India. Startoon Labs has gained recognition at various events for its flagship product Pheezee both nationally and internationally. Please visit www.startoonlabs.com for more details.



## STATEX BIOTECH

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**Tel** : +91-98430 22722 | +91 422-2673232

**Email** : md.statex@gmail.com / subash2442@gmail.com

Website: www.statexengg.com

**Contact :** K.Subramaniam, Partner

## **Product Details:**

- Semi-Automatic VTM Dispenser (With Mini N2 Cylinder) Statex Semi-Automatic VTM Dispenser is to measure 1ml to 500ml of liquid accurately by measuring (ml) accuracy ± 0.1% with night safety mode (Mini nitrogen gas cylinders and connectors).
- Statex Xtractor HT 600 Automatic Magnetic beads based system to extract nucleic acids (DNA/RNA/Protein) of highest yield and quality for hazardous samples like viral, bacterial, fungal, blood, plasma, urine and serum samples The system is designed to be very simple and user friendly for processing upto 8/16/24/32 & 96 samples in one run. Easily interchange the magnetic head and consumables for 8/16/24/32 & 96 test per run and it are comes with Biosafety Cabinet Class II Type A-2 with inbuilt UV lamp for proessing viral samples.
- Statex Xtractor HT 501- Automatic Magnetic beads based system to extract nucleic acids (DNA/RNA/Protein) of highest yield and quality for non-hazardous samples like plant, seeds and food samples. The system is designed to be very simple and user friendly for processing upto 8/16/24/32 & 96 samples in one run. Easily interchange the magnetic head and consumables for 8/16/24/32 & 96 test per run.
- Liquid Handling Robot Liquid handling Robot is an 8 channel pipetting that dispenses 10 μL to 1mL of reagent, samples or other liquid to a designated container.



**Company Profile:** Statex, a Coimbatore based company has been involved in the production of fibre and yarn testing instruments. Since its inception in 1985, Mr. K.SUBRAMANIAM is Managing Director of Statex who is a graduate in engineering with more than 8 years of dedicated service in a textile research association, where he concentrated in the textile testing instrument research and development. Enriched with his guidance and direction, today Statex has established its name throughout the world.

Statex has been constantly and continuously reinventing itself by introducing new and improved technology instruments. With the encouragement and support of the customers, Statex will stand unique in producing high class products to meet the needs of the textile industry. Statex built with excellent experience of over 35 years, still keeps winning new confidence and customers with its reliable technology in the textile industry.

Now we came out with our new development with a separate unit as "Statex Biotech". Statex Biotech is manufacturing indigenously scientific and diagnostics instruments like Automatic Magnetic Beads Based DNA/RNA/Protein Extraction and Separation systems, Semi-Automatic VTM Dispensers and Liquid Handling Robots as made in India with a startup project.



## **SWISS BUSINESS HUB INDIA**

Consulate General of Switzerland, Maker Chamber IV, 10th floor, Nariman Point, Mumbai 400021, India

**Tel** : +91 (0)22 2285 8172

**Email** : patricia.dias@eda.admin.ch

**Website**: www.s-ge.com/en/company/swiss-business-hub-india

**Contact**: Patricia Dias, Executive Assistant to Head

**Company Profile:** The Swiss Business Hub India is a representative of the Swiss federal government's official trade and investment promotion agency, Switzerland Global Enterprise (S-GE). Headquartered at the Consulate General of Switzerland in Mumbai with a team at the Embassy of Switzerland in New Delhi, one of its key mandates is to support Indian companies with greenfield investment in Switzerland.

The SBHI acts as the first point of contact for Indian companies that seek to establish a presence in Switzerland and works closely with the various economic development offices of the Cantons/Regions of Switzerland. The Hub enables crucial contacts with partners such as industry associations, chambers of commerce, research institutes, innovation parks, etc ensuring smooth transition in the European market.

Swissnex, an initiative of the Swiss Government, is a network with nodes in the world's most innovative hubs, including Bangalore, Boston, Rio de Janeiro, San Francisco and Shanghai. Each Swissnex promotes public-private ventures. Swissnex also works closely with science and technology counsellors based in Swiss embassies around the world.

Swissnex Bangalore are the 'go-to' partners in the areas of:

- Academic Relations and Education
- Innovation and Entrepreneurship
- Science and Arts



## **TERALUMEN SOLUTIONS Private Limited**

Golden Jubilee Biotechnology Park for Women 4th Main Road, 2nd Cross Road, Inside SIPCOT-IT Park Old Mahabalipuram Road, Navalur, Post, Chennai, Tamil Nadu 603103

**Tel** : +91 +91 9445876298

**Email**: teralumens@gmail.com

Website: www.teralumensolutions.com

**Contact**: Dr. Jyotirmayee Dash, Founder and Director

**Product Details:** The product is a compact and cost-effective Continuous Wave Terahertz device with a bandwidth of 0.1 - 1 THz. The product is capable of detecting breast cancer margin with a very high specificity and sensitivity combining Machine Learning algorithms.

The product will be able to carry out real-time diagnosis intraoperatively. This diagnosis carried out by the product will be non-invasive and emit non-ionizing Terahertz radiation which is beneficial for medical diagnostics. Further, the analysis will be reagent free and no chemical staining will be required.

Company Profile: TeraLumen Solutions Private Limited, founded in 2019, is the first Terahertz company in India, working towards the development of a device for breast cancer margin detection. TeraLumen is a woman-led start-up. The company will be employing imaging and spectroscopic analysis using non-invasive and non-ionizing Terahertz radiation and Machine Learning algorithms for real-time medical diagnostics. The vision of the organisation is to design and develop cost-effective diagnostic devices which can make an impact in reducing the mortality rates due to breast cancer and potentially delve into diagnosis of other cancers as well.

The company has four employees, skilled in areas ranging from Terahertz imaging and spectroscopy, machine learning, electronics and software development. The company is supported by two expert mentors with more than ten years of experience in Terahertz photonics and more than thirty years of experience in the field of Non-Destructive Testing.

TeraLumen has received several government start-up grants, including the BIG-BIRAC grant.



## **TESTRIGHT NANOSYSTEMS**

F-42, (1/11743), Panchsheel Garden, Naveen Shahdara, New Delhi, Delhi 110032 India

**Tel** : +91-9716608806

**Email** : testright.in@gmail.com

Website: www.testright.in

**Contact**: Shubham Rathore, Founder CEO

**Product Details:** Prizm Raman is a unique instrument that combines the advantage of a portable probe system with the performance of a highly specified laboratory instrument. It is a perfect choice for Raman analysis when the acquisition of high-quality data is essential.

Real-time and accurate identification of an unknown substance is accomplished by comparing its unique Raman spectrum of molecular vibrations (molecular "fingerprint") to Raman spectra of reference substances stored in the spectral database. Prizm Raman performs the identification of substances through walls of sealed bags, transparent bottles, vials, and ampoules. The ease of use, single-hand operation, small size, and weight of Prizm Raman enables express chemical analysis of substances. Results are displayed within seconds and can be accessed via an intuitive user interface. The data are retrieved remotely via the USB port.

- Best-fit space economy Carry, place and operate it anywhere and everywhere
- Powerful software Compatible with Windows/ MAC/ Ubuntu. Ensures user-friendly operations.
- Smart data Easy data export which opens in Excel format (CSV) through PC connectivity
- Excitation Wavelengths 532nm, 785nm, and 1064nm



**Company Profile:** TestRight started its journey in 2016 at IIT Delhi where it received fundings from Qualcomm and BIRAC. TestRight was born to bridge the gap of indigenous molecular sensing devices. Along with cutting-edge hardware, we have developed advanced machine learning and chemometrics tools to provide turnkey solutions to our customers.

Started with a pocket spectrophotometer, TestRight's product range has now expanded to CCD-array Spectrometers, Fluorometers, Raman Spectrometers, Optical Fiber Probes providing solutions to measure Absorbance, Reflectance, Transmittance, Irradiance, Color, Raman, Fluorescence and Photoluminiscence.

Today, TestRight's products are being used in countries like Israel, USA, South Korea, and France, besides premier Indian institutions like IITs, DRDO, IISC Bangalore and CSIRs. As we grow we will continue to innovate and lead the industry with reliable spectroscopic systems.



## THE FEDERATION OF ASIAN BIOTECH ASSOCIATIONS (FABA)

Flat 103, My Home Laxmi Nivas, Greenlands, Ameerpet, Hyderabad 500016, Telangana State

**Tel** : +91- 9542661897 | 7989957263

**Email**: preddanna@gmail.com

Website: www.biofaba.org.in

**Contact**: Prof. P. Reddanna, Executive President

**Product Details:** FABA promotes and safeguards the overall interests of Biotechnology as science, profession, industry or trade by coordinating with research professionals, entrepreneurs, industries and academic institutions in various Asian Countries. FABA promotes collaboration between academia and industries engaged in Biotechnology among the member countries in Asia. For more information about the Federation of Asian Biotech Associations, visit: biofaba.org.in

**Company Profile:** Federation of Asian Biotech Associations (FABA), established in 2005, is a non-profit organisation registered under the Indian Societies Act, 1860. It is created to provide a global platform for the development of biotechnology across the globe, particularly in Asian countries. The mission of FABA is to promote innovation and entrepreneurship in the biotech industry, academia, and healthcare sector. For more than 15 years, FABA has been fostering collaboration between academia, industry, and government, thus promoting investments in biotechnology and related fields. FABA also facilitates cross-border trade in terms of export, outsourcing of services, products, and other related activities. FABA sponsors study and business teams in member countries and invites individuals, experts, scientists, and similar delegations from member countries and across the world.

## About FABA Academy (http://biofaba.org.in/faba-academy.html)

FABA academy is a special wing under FABA organization that focuses on grooming the students of the Universities in all the member countries and make them "Future-ready". FABA academy prepares the students by providing skill development programs that give them the opportunities in the Pharma and Biotech industries. The academy also provides career guidance workshops and webinars to enlighten young minds with all the available options in the job market. The FABA academy also brings awareness and guidance, among the student community, in the core values behind innovation and entrepreneurship. All this is achieved by conducting webinars,



workshops, distinguished lectures, and hands-on training on various topics of relevance to the industry, under the supervision of experts from the academy and industry.

During the last BioAsia, we launched FABA Academy, mainly to form a bridge between academy and industry in human resource development. Pl see the brochures on FABA and FABA Academy attached with this email.

As part of the activities of FABA Academy, we conduct webinars targeted to hone the professional development skills of the students. We are further actively engaged in making the preparations for launching Skill development programs next year for the students coming out of B.Sc. and M.Sc. so that they are taught specific skill sets required by Pharma and Biotech Industry which will lead to their immediate placements.

We have so far conducted 23 webinars and have gotten overwhelming response from the students. On average, we get 500+ registrations for each webinar that we conduct. We have further been able to generate a database of 3500+ students. This shows our commitment to keep providing to the needs of the student community and our efforts to make it an exhilarating experience for them will only continue to grow from here.

We have also conducted one workshop on "Data Science Basics Course". Within one year, and have entered MoU with five organizations focused on reskilling of the candidates.

In the year 2021, FABA Academy will conduct:

- Workshop on chromatography techniques with video demonstrations (February 2021)
- Drug Discovery and Development workshop (March 2021)
- Workshop on Upstream and Downstream processing: protein purification process. (April 2021)
- Science Communication workshop
- Curate your LinkedIn profile workshop
- CV/ Resume writing workshop
- Manuscript writing workshop
- Grant Writing workshop

Apart from these there will be webinars conducted every month for the students.

It is on YouTube

https://youtube.com/channel/UCIaICal9x\_-UpoCPBBZRwSw



## THE FEDERATION OF ASIAN BIOTECH ASSOCIATIONS (FABA)

NCR-Biotech Science Cluster, Faridabad, India

**Tel** : +91-9999965258 | 0129-2876311

**Email** : gmedigeshi@thsti.res.in

**Website**: https://thsti.in/bioassaylab/

**Contact**: Dr. Guruprasad Medigeshi, Professor

**Product Details:** THSTI Bioassay Laboratory

**Company Profile:** The Bioassay lab (BL), THSTI was established as a translational laboratory for the development of assays to measure clinical immunogenicity of vaccines. The mandate of BL is to provide validated assays for vaccine development that are on par with global standards. We are now a NABL-accredited (17025:2017) - cGLP laboratory with trained manpower and a robust quality management system.

The laboratory has currently established molecular and serological assays for SARS-CoV-2, Dengue and Chikungunya and is intended to serve as a national resource platform for the clinical development of vaccines and biologicals. BL responded to the COVID-19 pandemic by proactively partnering with ESIC hospital, Faridabad to initiate diagnostic testing in Faridabad. BL has also contributed to training manpower and establishing COVID-19 testing labs in a number of hospitals in the region. We are also an ICMR-recognized COVID-19 testing facility, the first one in Faridabad-Palwal region. BL is also managing the mobile testing laboratory for COVID-19, the only one of its kind in India.

Bioassay Lab, THSTI, is the only Indian lab (one of seven centralized network labs), to be selected by Coalition for Epidemic Preparedness Innovations (CEPI) for facilitating COVID-19 vaccine development. CEPI's mission is to stimulate and accelerate the development of vaccines against emerging infectious diseases and enable access to these vaccines for people during outbreaks. The primary objective of this collaboration is to establish a common platform that employs the same protocol, assays and data analysis methods, to ensure that vaccine candidates are assessed in a manner that is acceptable to regulators.

Through this partnership, vaccine manufacturers will work through CEPI and will have access to validated assays to measure the efficacy of vaccines from Phase I through Phase IIb trials in these labs. Under the CEPI Global network, BL will be equipped to measure the immune response of multiple vaccine candidates under trial, thereby enhancing the selection of the most effective candidate.



## **ULTRATECH INDIA LIMITED**

119, J.K. Chambers, Sector-17, Vashi, Navi Mumbai, India, Pin – 400705

**Tel** : +919820043872 | +91-22-66444000

**Email** : info@ultratechindia.com **Website** : www.ultratechindia.com

Contact: Rishi Bhatia, Managing Director

#### **Product Details:**

Pharmaceutical Inhalation Finished dosage forms

- Active Pharmaceutical Ingredients
- Remdesivir Pressurized Metered Dose Inhalers
- Remdesivir Dry Powder Inhalation
- Favipiravir API

**Company Profile:** Ultratech India Limited is an integrated pharmaceutical and life sciences company based in Mumbai. The company is engaged into manufacturing of pharmaceutical finished dosage forms, Active Pharmaceutical Ingredients and in providing drug discovery solutions.

The company specializes in development and manufacturing of pulmonary drug delivery systems and offers a complete range of anti-asthmatic inhalation drugs in Dry Powder Inhalation and Pressurized Metered Dose Inhalation dosage forms.

In the Active Pharmaceutical Ingredients space, Ultratech specializes in the development and scale-up of new molecules involving complex synthetic chemistry processes.

The company also provides Custom Research and Manufacturing Services and undertakes custom synthesis for new molecules, process development work of Bulk Actives as well as for Pharmaceutical finished dosage forms.

Research activities are conducted at the company's DSIR approved in-house R&D center near Mumbai. In an attempt to minimize the project management time lines, R&D activities of both APIs and formulations are done under one roof. Research is focused mainly on developing new products, Process development of pharmaceutical finished dosage forms / APIs & Drug intermediates, Synthesis route development, Process optimizations, Impurity synthesis, Developing environmentally friendly processes, Drug product characterization and Pulmonary route drug delivery system developments. The company has been able to achieve a synergistic integration of research & development between its APIs and FDFs.

During the recent months, the company has successfully developed cost effective APIs and repurposed drugs to be indicated for treating patients diagnosed with COVID19 and other Flaviviridae family viruses. The repurposed drug developed in novel Inhalation dosage forms can be self-administered by patients through the pulmonary route to provide direct drug deposition onto lungs resulting in high efficacy & bio-availability on the lungs; the desired primary site of action.

Ultratech wishes to commercialize its developed Inhalation drug dosage forms and needs partner organizations to fund its growth plans.



# **United States Pharmacopeia INDIA**

Hyderabad

**Tel** : +91 7680058111 | +91 40 4916 8512

**Email** : CKK@USP.org

Website: www.usp.org

**Contact**: Karthik lyer, Associate Director

**Product Details:** www.usp.org/biologics/reference-standards

**Company Profile:** For over 200 years, USP has worked to build trust where it matters most: in the world's medicines, dietary supplements and foods. Through our rigorous science and the public quality standards we set, USP helps protect patient safety and improve the health of people around the world. USP is an independent, scientific nonprofit organization focused on building trust in the supply of safe, quality medicines. We are working to strengthen the global supply chain so that the medicines people rely on for health are available when needed and work as expected. Pharmaceutical science expertise, of our staff and world-wide volunteer experts, is the foundation of USP's work to help advance public health and ensure the quality and safety of medicines, dietary supplements and foods.

The quality standards we develop help manufacturers deliver safe products to billions of people worldwide. The United States Pharmacopeia-National Formulary (USP-NF) includes over 6,800 of those quality standards for medicines, both chemical and biologic; active pharmaceutical ingredients; and excipients (inactive ingredients). It is the most comprehensive source in the world for quality standards and is utilized in over 150 countries worldwide and integrated into the laws of more than 40 countries, including in the U.S.

Safeguarding the quality of medication is fundamental to protecting the public's health, especially as ingredients and products come from all over the world. Biologics — such as recombinant therapeutic proteins, vaccines, blood components, tissues and gene therapies — are growing faster than any other segment of medicine. Just as they do for chemical medicines, manufacturers must ensure the purity and quality of the biologics that make their way to patients. USP quality standards serve as the foundation for a robust safety network that assists manufacturers by increasing predictability and reliability, and preserving the integrity of the global supply chain.

USP Biologics has long-standing relationships with organizations across the globe, maximizing our impact in standards setting.



- USP Biologics participates in harmonization of Biotechnology Chapters through the Pharmacopeial Discussion Group (PDG), formed with representatives of USP, the European Pharmacopoeia, and the Japanese Pharmacopoeia.
- European Directorate for the Quality of Medicines & Healthcare (EDQM)
- Health Canada: Biologics, Radiopharmaceuticals and Genetic Therapies
- USP Biologics works with Health Canada under the Cooperative Research and Development Agreement (CRADA) between the two organizations. Health Canada staff also volunteer in our Expert Committees, and their labs participate in our reference standard collaborative testing.
- National Institute of Biologics (NIB), Government of India
- USP-India Biologics staff participates in collaborative testing of reference standards developed by NIB. In addition, the USP Biologics staff train NIB scientists, hands on in the laboratory, as well as in USP Workshops and PE courses. The training partnership will soon include joint training sessions.
- Pharmaceuticals and Medical Devices Agency
- UK: National Institute for Biologics Standards and Control
- USP Biologics has an MOU with NIBSC governing the collaboration on reference standard production, reference standard co-development and collaborative testing. In addition, NIBSC staff volunteer on our Expert Committees.
- US Food and Drug Administration US FDA staff participate as liaisons on our Expert Committees, and work with USP Biologics staff on standards development. Our work together is governed by a CRADA, and work together on the FDA/USP Substance Registration System (SRS).
- WHO: Immunization, Vaccines and Biologicals USP Biologics staff sit as observers on the Expert Committee on Biological Standardization (ECBS) as well as perform collaborative studies for ECBS. In addition, our Expert Committees provide input to their guidance documents.



## **VASMED HEALTH SCIENCES Private Limited**

Plot No. #160, #161, KIADB Obedanahalli Industrial Area, Doddaballapura 3rd Phase, Devanahalli Taluk, Bangalore Rural, Karnataka, INDIA 561 205

**Tel** : +91- 9900263325 | 080 22043300

**Email** : Sales@vasmed.in; Anoop.Varghese@vasmed.in

Website: www.vasmed.in

**Contact**: Anoop Varghese, Chief Operating Officer

## **Product Details: Direct products:**

Astra PTCA Guidewire series

•Vision FFR IBP Catheter and Pressure wires

•AERA Ventilators (under license for NASA/JPL)

# End to end Medical device design & development services, and Sub-assemblies including,

- Medical grade IBP pressure sensors (150 micron) with interface PCBAs, certifications compliant to BP22 and IEC 60601-2-34.
- Medical Grade IEC tested PCBAs with microcontrollers compliant to IEC 60601-1, 60601-1-2 and 2-34, 2-12, 2-80, IEC 62133 compliant Battery with recharging circuit.
- IEC/CE certification regulatory services.

**Company Profile:** Vasmed Health Sciences Private Limited is an ISO 13485:2016 and CDSCO certified medical device manufacturer specialising in sterile Class III invasive devices for diagnostics and therapy, particularly for cardiovascular application.

Vasmed factory based in Doddaballapur, Bangalore is a 25,500 Sq. Ft. custom build facility, with ISO 5, ISO 7 category cleanrooms, ESD, R&D areas and sterilisation area. Our cross functional team comprises of experienced engineers with Electronics, PCB Design, mechanical, firmware, software, and MEMs specialists. Vasmed regulatory team constitute of specialist with experience in IEC, CDSCO, CE certifications of medical devices. The firmware and software team are experienced with software compliant to IEC 62304 standard.



## Vasmed products and services are categorised into following areas

Cardiovascular Invasive Therapy devices including Astra PTCA Guidewire series: The PTCA Guide Wire is used to facilitate the placement of devices during diagnostic and interventional procedures. The guide wires are intended to facilitate catheter placement and exchange during diagnostic or interventional procedures, where increased support, distal flexibility and low surface friction of the guide wire is needed. Astra PTCA guidewire provide unique design, with unicore design, excellent reshape-able tip, good manoeuvrability, and support for device delivery.

Cardiovascular Invasive Diagnostic devices including Vision FFR IBP Series Catheter and Pressure wires: Vasmed FFR system and vision catheter are intended to provide hemodynamic measurement information for use in the diagnosis and treatment of coronary or peripheral artery disease. When used in catheterization and related cardiovascular specialty laboratories, the FFR system and Vision catheter/ pressure-wire will compute and display physiological parameters based on the output of pressure measuring sensor.

AERA Ventilators (under license for NASA/JPL): AERA Ventilator is a commercialised version of VITAL ventilator, developed by NASA/JPL team. Vital Ventilator is unique, versatile, and designed for acutely ill patients suffering from Acute Respiratory Distress Syndrome (ARDS) caused by COVID-19. This subset of patients is generally characterized by needing low to moderate tidal volume at high breathing rate and a wide range of positive end-expiratory pressure (PEEP). The VITAL ventilator will satisfactorily meet the demands of those who require aggressive ventilatory support in a variety of clinical states, which may include low compliance, high resistance, hypoxia and hypercapnia.

Vasmed supports full fledge medical device development & certification services to interested customers and provide medical grade Sub-assemblies including

- Medical grade IBP pressure sensors (150 micron) developed in association with Centre for Nano Sciences (CeNSE), Indian Institute of Scienced, Bangalore; and associated interface PCBAs compliant to BP22 and IEC 60601-2-34
- Medical Grade IEC tested PCBAs with microcontrollers compliant to IEC 60601-1, 60601-1-2 and 2-34, 2-12, 2-80, IEC 62133 compliant Battery with recharging circuit.
- IEC/CE regulatory services Regulatory certifications compliant to MDR2017 (CDSCO), MDR (EU), IEC 60601 (compliance to 1-1, 1-2, 2-34, 2-12, 2-80 standards), Software development compliant with IEC 62304 standard.



# VIT -TECHNOLOGY BUSINESS INCUBATOR

Vellore Institute of Technology

**Tel** : +91- 9566656777 | 0416-2202301

**Email** : vittbi@vit.ac.in

Website : http://vittbi.com/

**Contact**: Dr.A.Balachandran, Senior General Manager

Product Details: Business Incubation.

**Company Profile:** VITTBI, incorporated in 2003, is a registered not-for-profit society, that helps technology start-up businesses with access to knowledge, funding, infrastructure, mentoring and network. "VITTBI: A Great Place to Build Technology Enterprises"



# WEINNOVATE BIOSOLUTIONS Private Limited

BI-8, Vijay CHS, Shivaji Nagar, Pune-411016

**Tel** : +91-9867468149

**Email** : milind@wibpl.com

Website: www.wibpl.com

Contact : Dr. Milind Choudhari, CEO

Product Details: SilvoGuardTM Antimicrobial Foley Catheter

Company Profile: To prevent the occurrence of HAI, especially CAUTI, Weinnovate Biosolutions Private Limited has come up with a SilvoguardTM NanoSilver impregnated Foley's Balloon urinary catheter developed from a unique & patented NanoAgCideTM technology. The Nano colloidal Silver impregnated Foley's Balloon urinary catheters are antibacterial in nature and hence does not allow the bacteria to grow on the surfaces of the catheters, thereby reducing the chances of infection. As Nano colloidal Silver is impregnated in the entire material of the catheter it can provide infection prevention even though if it's surface layer is damaged. The damage is due to encrustation phenomenon where the salts from the urine are deposited on the inner layer of catheter. Nano colloidal Silver impregnated urinary catheter offers a protection from microbes from outside as well as inside of the catheter. The mechanism by which Nano colloidal Silver acts as an antimicrobial agent is by blocking the respiratory chain of bacteria due to the release of silver ions from the Nano colloidal Silver and physically damaging the cell membrane owing to the small size of nanoparticles.

Antimicrobial catheters are widely used around the globe but very less in India. The use of antibacterial catheters has significantly reduced the number of infections associated with the catheter as suggested by the reports whose studies were conducted in different countries.

Weinnovate Biosolutions Private Limited is a startup working dedicatedly in the area of Infection prevention and control. We are the unsung heroes advocating "Prevention is better than cure". We develop antimicrobial solutions which reduces hospital acquired infections and help save millions on hospitalization bill. We are a team of dedicated scientists and technologists, working together in developing solutions which are rapid and cheaper. Our mentors include medical doctors, business strategists, pre-clinical and clinical studies advisors, product building experts. Our mission "Zero Infections" which we envisage to achieve by developing affordable, antimicrobial, critical, high-demand, medical consumables to reduce the incidences of HCAI.

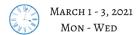
Weinnovate Biosolutions is the recipient of prestigious Biotechnology Ignition Grant award and Small Business Innovation research initiative grant from Biotechnology Industry Research Assistance Council (BIRAC)Govt. of India. Owing to success of the startup, it has also been provided assistance from National science and technology entrepreneurship development



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150+ Indian companies present in Switzerland

15 Sector clusters with strong network ecosystems

1,000+ Companies are supported annual basis

50+ Years of collective outbound investment advisory experience

# KEY FOCUS SECTOR

- Fintech
- Life Sciences
- Data Analytics
- Artificial Intelligence
- Robotics and Drones
- Blockchain
- ICT
- Advanced Manufacturing
- Personalized Healthcare

# WHY SWITZERLAND

# REPLAND NATURE OF INVESTMENT

Access to major European Markets

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Regional HQ

**Industry Clusters** 

Hete

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R&D and Innovation

**Q**,

R&D and Center of Excellence

Competitive Taxation Policies

K.F

Centralized Invoicing

World-class Infrastructure

Flexible Labour Market

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IP Protection
Political & Economic Stability

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Sales and Marketing Office

\* Based on rankings published in 2019

## **ILLUSTRATIVE INDIAN COMPANIES PRESENT IN SWITZERLAND**















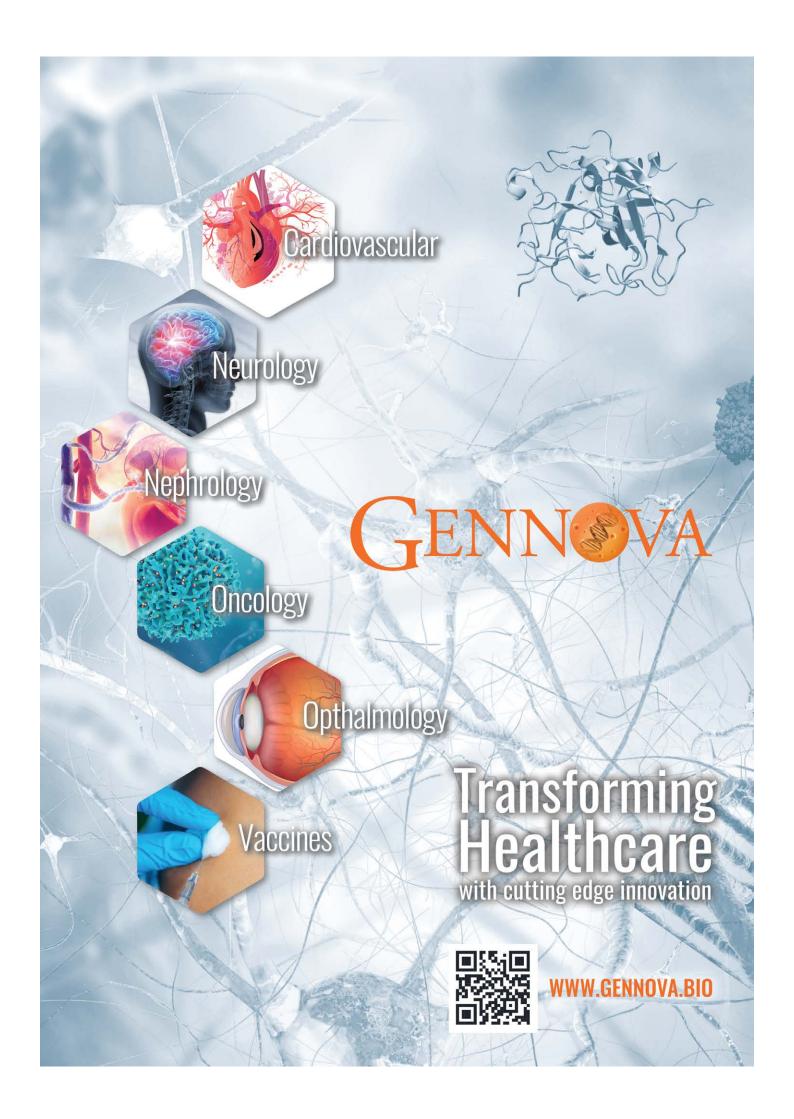






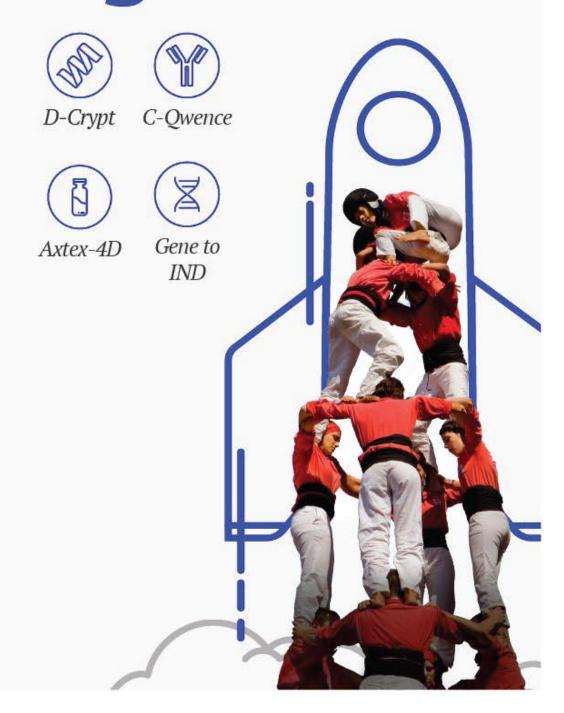








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# Institute of Bioresources and Sustainable Development (IBSD) जैव संसाधन और स्थाई विकास संस्थान

Takyelpat, Imphal, Manipur, India

Regional Centre: Gangtok, Sikkim Nodes: Aizawl, Mizoram: Shillong, Meghalaya www.ibsd.gov.in

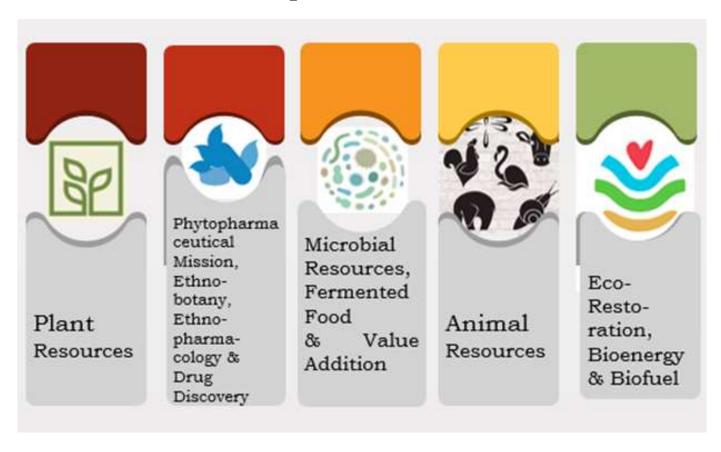
# **Mission**

Bioresources development and their sustainable use through biotechnological interventions for the socio-economic growth of the region.

# Vision

Scientific management of bioresources in the Indian region falling under Indo-Burma Biodiversity Hotspot.

# Research & Development and Outreach Verticals





Cyrus Poonawalla Group

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Sample collection

Sample p reparation

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Analysis and report

Samples f rom patients, including:

- Nasopha ryngeal swab
- · Nasopha ryngeal aspirate
- B ronchoalveolar lavage (BAL)

### Recommended

- Thermo Scientific "KingFisher" Fl ex Purification System with Applied Biosys tems MagMAX Viral/Pathogen II Nucleic Acid Isolation Kit
- Manual extraction using an Invitrogen<sup>®</sup> Magnetic Stand-96 with the MagMAX Viral/Pathogen II Nucleic Acid Isolation Kit

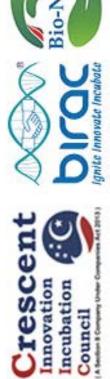
• Covi Path C OVID-19 RT-PCR Kit

### Recommended

• Applied Biosys tems<sup>™</sup> Quant Studio<sup>™</sup> 5 instrument (96-well, 0.2 mL block) Recommended DA 2.5 softwa re

Get the CoviPath Kit now at thermofisher.com/covipath





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- Received the Outstanding Exports Award from the Ministry of Commerce, Government of India, thrice in a row from 2013 to 2015.
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Biosciences to Bioeconomy

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Make in India Cell

Biotechnology Industry Research Assistance Council 1st Floor, MTNL Building, 9, CGO Complex, Lodhi Road, New Delhi-110003

⊠ info@globalbioindia.com



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