

I. Manipal-Government of Karnataka Bioincubator

1. Introduction



Manipal - Government of Karnataka Bioincubator, is a Technology Business Incubator, is an initiative of Manipal Academy of Higher Education (MAHE), supported by 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 overall 20,000 sq. ft. area with 10,000 Sq. Ft in the 3rd floor of advanced research center thrust areas such as Biopharma, Biomedical Devices, Dental Innovation, Biotechnology, Disease Diagnosis, information technology, agriculture, renewable energy, energy conversion systems, nanotechnology, and Medical Healthcare. Bioincubator provides multidiscipline entrepreneurial ecosystems and resources in Health Sciences, Medical, Pharma, Engineering, Life Sciences, Management, and Basic Science. Currently, 26 Incubatee Companies are working in Medical innovations, Tissue engineering, Bioprinting & 3 D Organ development, Microfluidics, Drug discovery, Nan biotechnology, MedTech devices, Diagnosis innovation, AI interfaces & Wearable technologies, Mobile health initiatives, Big Health Data, IOTs, Block Chain 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 the incubation facility is running low cost and affordable incubation program including virtual incubation and co-incubation. The technology platforms are linked with a vast network of innovators, researchers, advisors, clinicians, engineers, consultants, regulators, IP attorneys, TTOs, and Government policymakers.

The Bioincubator provide facilities based on the requirements of the start-up including, Dedicated Incubation Facility, Shared Incubation Facility, Tissue culture, and Micro fluidic 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. It has received the Augmentation support for facility expansion from Biotechnology Industry Research Assistance Council (BIRAC), Dept. of Biotechnology-Govt. of India through BioNEST program for 5 years first year release of Rs. 240 lakhs received during December 2020. With the focus on fostering the biotech innovation ecosystem. It is spread over an area of 10,000 sq/ft on 1st floor. It has well-equipped technical infrastructure and business mentoring to support the Startups, Students, Entrepreneurs, Researcher Scholars to stimulate enterprise ecosystem in Biotech & Healthcare sector. It has fabrication Lab, Design and Simulations lab, Electronic Testing Lab, Micro Fluidic Lab, Class 100 Clean Room etc.

Table 1: Highlights

Members Associated 700+	Grant Received by Incubator 23.68 Cr	Incubatees Supported 53	Preincubatees Supported 12
Programs Conducted 57	Funds Raised by Startups 8.59 Cr	Technologies Developed by startups 35	Patent /IPR 44 Filed 15 Granted
Products/Services Launched 10+	Entrepreneurs Supported 100+	Employment generated by startups 135+	Women Entrepreneurs 19

Incubatees: Existing Start-Ups- 39

SN	COMPANY NAME	Date of Joining	Title
1	Aironc Health technologies Pvt.Ltd	01-09-19	Revolutionising Radio Oncology with AI
2	Aaray Health Solutions Pvt Ltd	01-12-19	Histopathological Services for Pre-Clinical Research
3	Lead Molecules LLP	16-12-19	Establishment of an innovation driven drug discovery & development organisation offering integrated scientific & management services to academic & pharmaceutical enterprises.
4	SCIOGEN BIOSCIENCES PRIVATE LIMITED	01-02-20	LepD Kit
5	Curioz TechLab Pvt.Ltd	01-08-20	Rector Scissors Needle System for Intractivity hydro dissection & excision of tissues
6	Regenco Innovations Pvt.Ltd	01-11-20	3D Bio-Printing of Skin Graft
7	Vyabja Ocular Pvt.Ltd	01-12-20	Drug Delivery Implant for Post Cataract Treatment
8	Drava Life Sciences Pvt. Ltd	01-01-21	SPECTRE-SEQ-- A Next Generation Sequencing Based Technology for Liquid Biopsy
9	BioBreath Health Solutions Pvt.Ltd	01-02-21	Development of Reusable, Transparent & Breathable Material for Non-Invasive Medical Applications
10	Seragen Biotherapeutics Pvt.Ltd	01-03-21	Ovarian Rejuvenation: The Disruptive & Innovative in global fertility Industry
11	Scires Technologies Pvt.Ltd	01-03-21	Development of improved/innovative product & providing services for process or product development
12	Blackfrog Technologies Pvt.Ltd	15-04-21	Development of portable medical grade refrigeration unit
13	SENZTECH Technologies Pvt.Ltd	21-12-21	Development of multimodal optofluidic prototype for sensing heavy metal ions
14	Tiny Prism labs Pvt Ltd	01-03-22	Development and Validation of a Novel Non-Invasive Device for identification of Aspiration risk
15	AUTOROBOT AI & R Solutions Pvt Ltd	25-03-22	Wearable devices for detecting early signs of acute neurological or cardiovascular function failures in humans' "Savior Bot"
16	SVN Novatech Pvt Ltd	01-07-22	Development of User centric & low cost gnathodynamometer
17	Ganglia Technologies Private Limited	01-08-22	Manipal Faculty in Active research - Video Laryngoscope
18	Bhan Enterprises Pvt Ltd	26-09-22	Developing customized web-based services for research processes, industries, pharma companies, and medical professionals.
19	Neer Shakti Systems Pvt Ltd	01-10-22	Nano bubble generators for enhancing the crop yield
20	TeachSpoon EdTech Pvt Ltd	03-10-22	Medi-Study Go
21	Gilbert Biotech Private Limited	16-10-22	Affordable cell & Molecular research services for non-biologists
22	Greenie Bioplastics Private Limited	24-10-22	Manufacturing of Compostable carry bags & other commodities
23	Cambrian Biotech Private Limited	01-05-23	Magnetic Capture Hybridization & Quantum Dot Assisted Sensitive Detection of RNA Transcripts
24	Stat N Fact Private Limited	02-06-23	Development of project Management Suite for Educational Institutions

25	Dashapatmaja Solutions Private Limited.	16-10-23	Healthcare trip Planner Website and Mobile Application
26	Meta Biosciences Pvt Ltd	01-11-23	Development of small molecule drug compound for the effective treatment of Esophageal Squamous Cell Carcinoma
27	TAD Frost Pvt Ltd	01-11-23	Industrial heat pump to produce 1,600L/Hr at 75oC Hot water & Cold water.
28	Elohim Novatech Pvt Ltd	01-11-23	Development of Direct Coupled Switched Reluctance Machine Based Standalone Solar Water Pumping System for Irrigation.
29	Vilohit Care Tek Pvt Ltd	01-11-23	A novel multifunctional assistive device for paraplegic and hemiplegic Patients
30	Hersukh Wellness Pvt Ltd	01-11-23	Ahana & Her - Restoring women's health, at your doorstep
31	EVINHATA Solutions Pvt Ltd	01-12-23	EVINAHTA (Evidence and Health Technology Assessment)
32	Gati Gait & Posture Pvt Ltd	01-12-23	Kinematic Navigation in Knee Replacement
33	Quantumzyme LLP	01-04-24	Recombinant Transaminase Polypeptides
34	SiSuShi Healthcare Solutions Private Limited	01-03-24	INSTANT MIX FOR UNIFORMITY PHANTOM (INSTAPHANTOM)
35	Euclase Genetics Pvt Ltd	01-03-24	A stand-alone test for the genetic diagnosis of Hereditary Breast and Ovarian Cancer HBOC using nanopore sequencing technology
36	Chakshu labs Private Limited	01-04-24	Design & Development of Non-Invasive Cancer Monitoring Device
37	Jivanu Therapeutics Private Limited	01-04-24	Capsulized Microbiota Transplantation for treatment of diseases
38	Foundation to Undertake Undernutrition & Deficiencies (FUUD)	01-04-24	Combating Malnutrition through a " System Integrator Sharing Platform"
39	Satavic Innovations Private Limited	01-05-24	Develop a high affinity PD-1-Fc fusion protein as a therapy upto regulatory approval and marketing

Graduated Start-Ups- 14

SN	COMPANY NAME	Date of Joining	Title
1	Biomed Implants and Research Technologies LLP	09-01-20	Medical Implants - IP joints of the hand
2	CONCIPIO ENTERPRISE PRIVATE LIMITED	01-09-19	Comprehensive Genomic Ancestry determination of Indian populations employing unique ancestry informative markers (AIMs)
3	Businexbridge Possibility Solutions Private Limited	02-01-21	Establishment of Contract Research Organization
4	IUVA foods Pvt.Ltd	01-07-21	Production of synthetic milk by manufacturing its essential proteins and fats using microbial expression systems with recombinant DNA techniques
5	Uniarc Services LLP	01-11-20	Establishment of a Data Analytic Start up
6	Urwi Medical Innovations Pvt.Ltd	01-09-20	Second Generation Urinary Incontinence Trainer
7	Microbolite Research & Development Pvt.Ltd	01-07-20	Safe to Odor free wash less Anti-Bacterial Fabrics
8	IUVA Labs Pvt.Ltd	01-01-22	Development of recombinant expression system for large-scale production of dairy proteins & therapeutic problems
9	EikonaX Innovative Solutions Pvt.Ltd	01-01-21	A Novel X-Ray beam positioning guide for Accurate Dental photography

10	Add Here- Therapy		"ADD-HERE" AN INNOVATIVE THERAPY ADHERENCE APPLICATION
11	TAD AIRCON Pvt.Ltd	22-06-21	Indoor Air Purifier by Air Ionizer and Air Filtration
12	Alantis Sciences India Pvt Ltd	01-12-19	The firm is planned to provide solutions in the field of Cellular, Biochemical, Molecular & Genetic Diagnostics & Service Tests, Research & Develop new tests, Provide solution in the field of data science, Guide students working on innovative projects & provide solutions by building innovative biomedical devices
13	Konkan Kayaks Pvt.Ltd	01-03-21	Konkan Watercrafts - Development of Innovatively designed kayaks and set up of manufacturing unit
14	SESNOR Technology Pvt Ltd	01-07-22	Flexible Micro Sensors & Energy Storage Devices for real time Sensing Applications in the agriculture and the Biomedical Industries

Achievements of Incubatees

OVERALL GRANTS RECEIVED (In Lakh Rs) FY 2023-24									
#	Start-Ups	SISFS Grant Fund	SISFS Debt Fund	KTech Elevate	Nidhi Prayas	HDFC CSR Funding	E-Yuva	Other	Total Grant Received (INR)
1	Cambrian Biotech Pvt Limited		50.00						50.00
2	Teachspoon Edtech		47.00						47.00
3	Ganglia Technologies Pvt Ltd	16.70							16.70
4	Greenie Bioplastics Pvt Ltd	9.84							9.84
5	EikonaX Innovative Solutions Private Limited			18.00					18.00
6	TAD Frost Private Limited			18.00					18.00
7	URWI Medical Innovations Private Limited			18.00					18.00
8	Regenco Innovations Pvt Ltd			18.00					18.00
9	Tiny Prism Labs Pvt Ltd							5.00	5.00
10	Biobreath Solutions Pvt Ltd				8.50				8.50
11	Cambrian Biotech Pvt Limited			20.00					20.00
12	TAD Aircon Pvt Ltd					10.00			10.00
13	Sesnor Technology Pvt Ltd						2.00		2.00
TOTAL		26.54	97.00	92.00	8.50	10.00	2.00	5.00	241.04

TAD Aircon Private Limited launched its Indoor Air Quality improvement products, patented air filter & air disinfection unit at Bengaluru Tech Summit-2023 unveiled by Hon'ble Ministers of Govt. of Karnataka Shri. Priyank Kharge Ji & Shri.M C Sudhakar Ji.



Manipal-GoK Bio incubator took part in **Mangalore Technovanza 3.0** on **Feb 6th, 2024!** The gathering witnessed exciting **product launches** of our esteemed start-up **EikonaX Solutions Pvt Ltd** led by **Dr.Shruthi Acharya and Dr.Shruthi Singh** and **Instrumus** led by **Arjun Kohli**. And **Tiny Prism Labs Private Limited** led by **Mr. Mahesh Nayak U & Mr.Errol Joshua** awarded as an **"Investment Ready Start-Up"** out of the 4 start-ups of Mangaluru Blues. Exciting times are ahead for these cutting-edge ventures and Manipal GoK Bio incubator. Here are a few glimpses of the event.



Dr Dasharathraj K Shetty, Managing Director of Ganglia technologies Pvt. Ltd incubated in Manipal Gok Bio-incubator has been awarded the **"Outstanding Leadership Award"** at the **Education 2.0 Conference held on February 20, 2024**, in Dubai Festival City. This prestigious award recognizes his contributions to the field of education, particularly for blending entrepreneurial experiences **(stemming from his role as Managing Director of Ganglia Technologies Pvt. Ltd., incubated at the Manipal GoK Bioincubator)** with practical concepts in classroom settings.



EikonaX Solutions Private Limited was recognized as one of Manipal's most influential ventures at the **Manipal Entrepreneurship Summit 2024**. This award was conferred to us by Dr. HS Ballal, Pro-Chancellor, MAHE along with Dr. Sharath Rao, Pro Vice-Chancellor -Health Sciences, Cmdr Dr. Anil Rana, Director, MIT & Dr. Santhosha Rao, CEO, MUTBI.



Tiny Prism Labs Private Limited received prize money of **INR 5,00,000** through the Scale Up event held in the Entrepreneurship Conclave jointly conducted by **Saraswathi Samaj, Vishwa Konkani Kendra and UK & Co** held in Bengaluru on 7th and 8th October'2023.



It gives us an immense pleasure to let everyone know these Faculty Entrepreneurs of The Manipal-Government of Karnataka Bioincubator incubated start-ups have been recognized as scientists ranked in **top 2 percentile by C-Score along with 17** other faculties of MAHE. It is highly commendable and an incredible achievement.

The Manipal-Government of Karnataka Bioincubator is extremely proud of them and heartily congratulates them on this well-earned recognition.

Dr Srinivas Mutalik - Faculty of MCOPS & Promoter of **Scires Technology Private Limited**



Dr Nithesh Naik - Faculty of MIT & Promoter of **Curious Techlab Private Limited.**



Dr Nirmal Mazumder - Faculty of MSLS & promoter of **Senztech Technologies Private Limited**



MGOKB participation In Events & Conferences

Manipal-GoK Bioincubator had the incredible opportunity to participate in the prestigious **Bengaluru Tech Summit 2023, from 29th Nov'23 to 1st Dec'23** under the theme of "Breaking Boundaries." It was an honor to be among some of the brightest minds in the tech industry, pushing the limits of innovation and collaboration.

Our participation at the summit with a shell space for ourselves provided us with a platform to showcase our cutting-edge projects and highlight the transformative work that is being done in the field of biotechnology, biopharma, Food technology, Agritech & Healthcare & life sciences. We had the chance to connect with industry experts, entrepreneurs, and investors, fostering new partnerships and exploring potential collaborations.



The **Manipal-GoK Bioincubator** had the privilege of participating in the esteemed '**Global Bio India 2023**', held at **Bharat Mandapam, Pragathi Maidan, New Delhi from Dec'4th to Dec'6th**, focusing on the theme '**Biosciences to Bioeconomy**'. We were honored to join some of the brightest minds in the tech industry, pushing innovation and collaboration boundaries.

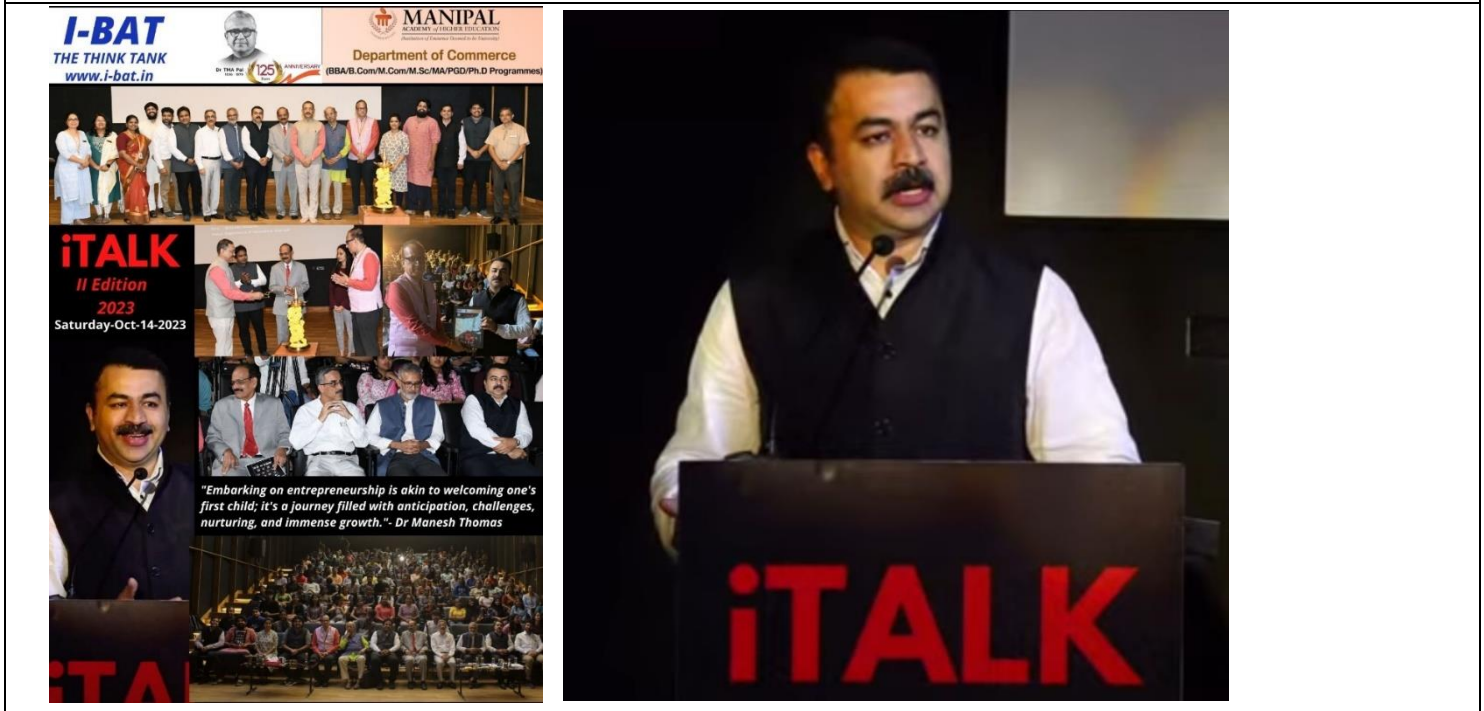
Our participation in the summit, accompanied by an exclusive area, enabled us to display state-of-the-art facilities and highlight the innovative work conducted at our center. The platform facilitated interaction with industry experts, entrepreneurs, and investors, leading to the formation of new partnerships and the exploration of potential collaborations.



Manipal-GoK Bioincubator took part in **Mangaluru Technovanza 3.0** on Feb 6th, 2024! The gathering witnessed exciting product launches of our esteemed start-up **Eikona X. solutions** led by **Dr. Shruthi Acharya** and **Dr. Shruthi Singh** and **Instrumus** led by **Arjun Kohli**. And **Tiny Prism Labs Private Limited** led by **Mr. Mahesh Nayak U & Mr. Errol Joshua** awarded as an **"Investment Ready Start-Up"** out of the 4 start-ups of **Mangaluru Blues**. Exciting times are ahead for these cutting-edge ventures and Manipal GoK Bioincubator. Here are a few glimpses of the event.



Dr. Manesh Thomas, Our Chief Executive Officer delivered a talk on "The Odyssey of Bio-Innovation, Building the Manipal-GoK Bioincubator " at iTalk II Edition-2023 organized by I-BAT THE THINK TANK & Department of Commerce, Manipal Academy of Higher Education. Special thanks to Dr. Dasharathraj K Shetty for making it happen.



Dr. Manesh Thomas, CEO of Manipal-GoK Bioincubator, participated as a distinguished jury member at the Entrepreneurship Conclave 2023. The event, held in September 2023 at WGSHA, brought together leading minds in entrepreneurship and innovation. Dr. Thomas's expertise and insights significantly contributed to the success of the conclave, highlighting his pivotal role in fostering entrepreneurial spirit and innovation.



Dr. Manesh Thomas, CEO of Manipal-GoK Bioincubator, participated as a distinguished jury member in the final round of the BIRAC E-Yuva committee meeting held in Delhi on 11th and 12th Jan'2024. His involvement in this prestigious event underscores his commitment to nurturing young entrepreneurs and advancing innovative solutions in the

biotechnology sector. Dr. Thomas's expertise and leadership were instrumental in evaluating and guiding the promising startups competing in the finals.



Dr. Manesh Thomas, CEO of Manipal-GoK Bioincubator, participated as a distinguished member in the connectors meet with Geran delegates at KITS, Office in Bangalore. Dr. Thomas's expertise and leadership contributed to this meeting.



Prominent Visitors

Manipal-GoK Biocubator to host the Third Year Biomedical Engineering Students from **Dr N G P Institute of Technology, Coimbatore** who had expressed their keen interest to visit Manipal-GoK Biocubator with the aim of Enhancing their Knowledge and also to understand the working methods and functioning of the Instruments.



We were indeed thrilled to familiarize the students from **Welcome group Graduate School of Hotel Administration Manipal** to the Technical & Support facilities available at Manipal-GoK Biocubator. Also, they were Demonstrated the Distillation of Spirit and discussions were made on Units related to Pasteurization, Dehydration etc. It was a mere sense of joy to Welcome the Team with invaluable insights at Manipal GOK Biocubator.



Manipal-GoK Bioincubator hosted the Final Year BTech Students from **Rajagiri School of Engineering and Technology**, Kochi who had expressed their keen interest to visit Manipal-GoK Bioincubator.



Manipal-GoK Bioincubator hosted the students from **Kongunadu College of Arts and Science**, Coimbatore along with the Faculty Members.



National Science Day' that serves as a reminder of India's rich Scientific Heritage which not only encourages but also inspires younger generation to pursue careers in science and technology, fostering a scientific mindset for the development of the nation. On this day, **Manipal-GoK Biocubator** gave a warm welcome to Students from various Institutions all over Udupi, Manipal and they were given Glimpses into the Modern Scientific Research and also had a firsthand experience of Different Scientific Activities.



We were indeed thrilled to Welcome Manipal College of Dental Sciences who hosted Design Thinking Bootcamp in collaboration with E-Cell, MIT, as part of the Manipal Entrepreneurship Summit 2024.

With the theme "Vision to Venture," the summit endeavored to inspire the entrepreneurial spirit within the MAHE community. It was a mere sense of joy to welcome these budding entrepreneurs with invaluable insights at Manipal GOK Bioincubator.



Snapshots of "Dr Hoyong Chung, CTO /R & BD Director & Dr Jun Hyung Park, CEO, Adjunct Professor at Pusan National University, School of Medicine and 3 BIGS CO., LTD. " visiting Manipal-GoK Bioincubator Facility.



Students of 3rd year, **Information Science & Engineering of AJ Institute of Engineering & Technology, Mangaluru** visiting Manipal-GoK Bioincubator on 1st February 2024. It was indeed a pleasure interacting with young minds and providing the students with understanding of the innovative and cutting-edge work being carried out in the field of biotechnology at Manipal- GOK Bioincubator.



Snapshots of "Dr Stephen Kidd, Associate Head of School (International), Dr Amit Srivastava, Associate Dean, and Daniel Tackage Global Partnerships Manager from The University of Adelaide. " Visiting Manipal-GoK Bioincubator Facility.



Glimpses of the Interaction Meeting held on Draft Karnataka Biotechnology Policy at Manipal-GOK Bioincubator on 5th January 2024. Active participation by Faculties from various Departments, Research Scholars, Students, Startups and Biotechnology Enthusiasts participated and also provided their valuable input and feedback that will enable to strengthen the Policy.



It was a Privilege to Welcome Dr Katsumasa Fujita, Ph.D. Professor, Department Of Applied Physics, Osaka University to Manipal-GoK Bioincubator. Dr Fujita is a part of Manipal Research Colloquium, who also delivered a valuable Session on "Raman Microscopy- A new Imaging Modality for Biology & Medicine."



It was a Privilege for Manipal-GoK Bioincubator to Welcome Dr rer. nat. Avneesh Chopra, Ph.D Medical Biotechnology, Department Of Periodontology, Oral Medicine and Oral Surgery, Charité - Universitätsmedizin Berlin to Manipal-GoK Bioincubator. Dr Avneesh, a Business Development Scientist (Dental Biomaterials) has his expertise in the Field of Molecular Genetics Charité - Universitätsmedizin.



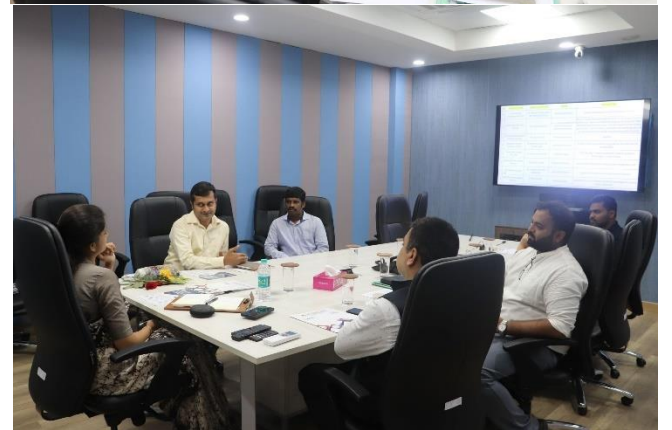
Glimpses of "Prof.(Dr) RS Bawa, Pro Chancellor, Chandigarh University" visiting Manipal-GoK Bioincubator Facility.



Welcomed esteemed guests, "Dr. Fu-Jen Kao" from National Yang Ming Chiao Tung University and "Dr. Guan-Yu Zhuo" from China Medical University, Taichung, Taiwan along with their brilliant team, to explore the cutting-edge facilities and vibrant ecosystem at **Manipal-Government Karnataka Bioincubator**.



Honored to have Parnika Pavanram KAS, GM, KITS, Govt. of Karnataka, grace us with her presence at the Manipal-Gok Bioincubator Facility. She paid a visit on 23/Sep/2023 to review the remarkable progress of Technology Business Incubator (TBI) initiatives. It was an inspiring day as she engaged with the talented startups incubated at Manipal-GoK Bioincubator, witnessing firsthand the innovation and passion driving our entrepreneurial ecosystem. Her visit reaffirms the commitment of the Karnataka Government to fostering innovation and supporting the growth of innovative startups.



Snapshots of delegates from Henry Goldman School of Dental Medicine, Boston University visiting Manipal-GoK Bioincubator



Snapshots of "Ms Rashmi Sinha Team Goonj Foundation and Mr. Arko Chattopadhyay, Co-Founder and CEO Xylem AI. " Visiting Manipal-GoK Bioincubator Facility.



Glimpses of Felicitation of **Prof. Dr. Subha A P Bhassu, University of Malaya, Malaysia** who guided us into the cutting-edge **research and development in the field of synthetic peptides**, and on their role in tissue regeneration, wound healing, drug delivery systems, and biomaterials for tissue engineering through the Seminar on "**Synthetic Peptides in Regenerative Medicine Geared Towards Therapeutic Advances for Future**".



Few snapshots of the facilities







