KERALA MEDICAL TECHNOLOGY CONSORTIUM (KMTC)

IN
ASSOCIATION WITH

DR MOOPEN'S iNEST, DR MOOPEN'S MEDICAL COLLEGE (DMWIMS), MEPPADI, WAYANAD

8TH

STAKEHOLDERS CONNECT MEET (SCM)

19TH JANUARY 2024

GALLERY, 8TH FLOOR, DR MOOPEN'S MEDICAL COLLEGE (DMWIMS), MEPPADI, WAYANAD, KERALA

POST-MEET REPORT

25TH JANUARY 2024

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1. PROGRAM AGENDA

The 8th KMTC Stakeholders Connect Meet (SCM) was organised in close association with Dr Moopen's iNEST, Meppadi, Wayanad, Kerala on 19th January 2024. The theme of the SCM was selected as "**ACCELERATING MEDICAL TECHNOLOGY INNOVATIONS: THE CRITICAL ROLE OF INCUBATORS & ACCELERATORS IN MEDTECH SUCCESS**".

The following Program Agenda was sent out to the Kerala MedTech Ecosystem – across stakeholder groups like Research Institutions, Hospitals, Industry, Start-ups, Universities.

8TH KMTC STAKEHOLDERS CONNECT MEET – JANUARY 2024

A unique interactive event that brings together all the stakeholders in the Medical Technology / Medical Devices space, including the industry; Research Institutions and Organisations; Healthcare Professionals, Healthcare Providers, and Institutions; Entrepreneurs and Start-ups; Incubation & Acceleration Agencies; Universities & Colleges and the Government to promote Collaboration, Research, Development and Innovation in Medical Devices and Technology.

PROGRAM AGENDA

DATE	**FRIDAY | 19TH JANUARY 2024 | 8:30 AM – 3:15 PM**
VENUE	**GALLERY, 8TH FLOOR, DR MOOPEN'S MEDICAL COLLEGE (DMWIMS), MEPPADI, WAYANAD, KERALA**

THEME	**ACCELERATING MEDICAL TECHNOLOGY INNOVATIONS: THE CRITICAL ROLE OF INCUBATORS & ACCELERATORS IN MEDTECH SUCCESS**

TIME		PROGRAM / ACTIVITY
1.	8:30 – 9:00 AM	ARRIVAL OF PARTICIPANTS & **REGISTRATION**
2.	9:00 – 9:50 AM [50 MINS]	**INAUGURAL CEREMONY** ● WELCOME ADDRESS – **DR GOPAKUMARAN KARTHA**, DEAN, DR. MOOPEN'S MEDICAL COLLEGE (DMWIMS) ● OPENING ADDRESS – **MR C PADMAKUMAR**, SPECIAL OFFICER, KERALA MEDICAL TECHNOLOGY CONSORTIUM (KMTC) ● INAUGURAL ADDRESS – **MR ANOOP AMBIKA**, CHIEF EXECUTIVE OFFICER (CEO), KERALA STARTUP MISSION (KSUM) ● SPECIAL ADDRESS – **DR AZAD MOOPEN**, CHAIRMAN, ASTER DM HEALTHCARE (VIRTUAL MESSAGE) ● SPECIAL ADDRESS – **DR JOSEPH BENAVEN,** PRESIDENT, INDIAN MEDICAL ASSOCIATION (IMA) – KERALA CHAPTER ● VOTE OF THANKS – **DR RIJESH K**, CHIEF EXECUTIVE OFFICER (CEO), iNEST, DR MOOPEN'S MEDICAL COLLEGE (DMWIMS)
3.	9:50 – 10:05 AM [15 MINS]	**KERALA MEDTECH ECOSYSTEM – OBJECTIVES, ACTIVITIES AND UPDATES** SESSION BY **MR ROHIT PHILIP**, SENIOR PROGRAM CONSULTANT, KERALA MEDICAL TECHNOLOGY CONSORTIUM (KMTC)
4.	10:05 – 10:25 AM [20 MINS]	**THE 'MEDTECH' STARTUP LANDSCAPE OF KERALA** SESSION BY **DR DEEPU KRISHNAN P R,** ASSISTANT MANAGER (TRANSLATIONAL RESEARCH), KERALA STARTUP MISSION (KSUM)
5.	10:25 – 10:40 AM [15 MINS]	NETWORKING TEA & REFRESHMENTS BREAK
6.	10:40 - 11:00 AM [20 MINS]	**CATALYSING MEDTECH IDEAS INTO SUCCESSFUL VENTURES** SESSION BY **MR ASWIN R KRISHNAN,** PROJECT COORDINATOR, TIMED, SREE CHITRA TIRUNAL INSTITUTE FOR MEDICAL SCIENCES AND TECHNOLOGY (SCTIMST)
7.	11:00 – 11:20 AM [20 MINS]	**FACILITATING MEDICAL TECHNOLOGY INNOVATIONS AT DR. MOOPEN'S iNEST** SESSION BY **DR RIJESH K**, CHIEF EXECUTIVE OFFICER (CEO), iNEST, DR MOOPEN'S MEDICAL COLLEGE (DMWIMS)
8.	11:20 – 11:40 AM [20 MINS]	**INCUBATION SUPPORT SYSTEM FOR MEDICAL INNOVATIONS** SESSION BY **DR PREETHI M,** CHIEF EXECUTIVE OFFICER (CEO), TECHNOLOGY BUSINESS INCUBATOR (TBI), NATIONAL INSTITUTE OF TECHNOLOGY CALICUT (NIT-C)
9.	11:40 AM – 12:00 NOON [20 MINS]	**INCUBATION FACILITY AT MCC'S INCUBATION & INNOVATION NEST(MIINT)** SESSION BY **DR DEEPAK ROSHAN V G,** ASSOCIATE PROFESSOR, DIVISION OF GENETICS AND CYTOGENETICS, MALABAR CANCER CENTRE (MCC)

TIME		PROGRAM / ACTIVITY
10.	12:00 – 1:00 PM [60 MINS]	**EXPERT PANEL DISCUSSION – INCUBATING & ACCELERATING MEDTECH GROWTH: OPPORTUNITIES, CHALLENGES, AND ECOSYSTEM STRATEGIES** INTERACTIVE SESSION WITH EXPERT SPEAKERS – ANSWERING QUERIES FROM DELEGATES / PARTICIPANTS MODERATED BY **DR RIJESH K**, CHIEF EXECUTIVE OFFICER (CEO), iNEST, DR MOOPEN'S MEDICAL COLLEGE (DMWIMS) ● **DR DEEPU KRISHNAN P R,** ASSISTANT MANAGER (TRANSLATIONAL RESEARCH), KERALA STARTUP MISSION ● **MR S BALRAM,** CHIEF EXECUTIVE OFFICER (CEO)**,** TIMED, SREE CHITRA TIRUNAL INSTITUTE FOR MEDICAL SCIENCES AND TECHNOLOGY (SCTIMST) ● **DR PREETHI M,** CHIEF EXECUTIVE OFFICER (CEO), TECHNOLOGY BUSINESS INCUBATOR (TBI), NATIONAL INSTITUTE OF TECHNOLOGY CALICUT (NIT-C) ● **DR DEEPAK ROSHAN V G,** ASSOCIATE PROFESSOR, DIVISION OF GENETICS AND CYTOGENETICS, MALABAR CANCER CENTRE (MCC)
11.	1:00 – 2:00 PM [60 MINS]	NETWORKING LUNCH BREAK
12.	2:00 – 2:50 PM [50 MINS]	**EXPERIENCE SHARING SESSION – DOCTORS TO ENTREPRENEURS: SHAPING THE FUTURE OF MEDTECH ENTREPRENEURSHIP & INNOVATION** MODERATOR – **DR JOSEPH BENAVEN,** PRESIDENT, INDIAN MEDICAL ASSOCIATION (IMA) – KERALA CHAPTER 1. **DR NADEEM SHAH HAMZATH T A,** FOUNDER, CHIEF EXECUTIVE OFFICER (CEO) AND MANAGING DIRECTOR, APOTHECARY MEDICAL SERVICES 2. **DR SHAJI AYILLATH**, FOUNDER & DIRECTOR, 64 CODON PVT. LTD 3. **DR LINI BASIL,** FOUNDER AND CHIEF EXECUTIVE OFFICER (CEO), BYLIN MEDTECH PVT. LTD
13.	2:50 – 3:00 PM [10 MINS]	PARTICIPANTS FEEDBACK COLLECTION – THROUGH ONLINE FORM
14.	2:50 – 3:00 PM [10 MINS]	**WRAPPING UP THE MEET** ● KEY TAKE-AWAYS OF THE DAY – MR **C PADMAKUMAR**, SPECIAL OFFICER, KERALA MEDICAL TECHNOLOGY CONSORTIUM (KMTC)
15.	3:00 – 3:15 PM [15 MINS]	NETWORKING TEA & REFRESHMENTS

2. ATTENDANCE & PARTICIPATION

A total of **61 representatives participated in the SCM**, with representation from all stakeholder groups. The Meet was successful in getting participants to interact with each other and discuss critical issues on the theme / topic.

The List of Resource Persons, Speakers and Participants are attached in Annexure.

3. BRIEF SUMMARY OF THE MEET

3.1. INAUGURAL SESSION

The Inaugural Session of KMTC 8th Stakeholders Connect Meet (SCM) started off around 9 AM, a little bit later than scheduled, and the following dignitaries were involved in the session, that aimed at setting the context for the whole day of sessions and panel discussions.

1. **Dr Gopakumaran Kartha**, Dean, Dr Moopen's Medical College (DMWIMS)
2. **Mr C Padmakumar**, Special Officer, Kerala Medical Technology Consortium (KMTC)
3. **Mr Anoop Ambika**, Chief Executive Officer (CEO), Kerala Start-up Mission (Chief Guest)
4. **Dr Azad Moopen**, Chairman, Aster DM Healthcare (Virtual Message)
5. **Joseph Benaven**, President, Indian Medical Association (IMA) – Kerala Chapter
6. **Dr Rijesh K**, Chief Executive Officer (CEO), iNEST, Dr Moopen's Medical College (DMWIMS)

Dr Kartha welcomed all the dignitaries to the dais and extended a warm and hearty welcome to all participants and delegates – Medicos and Doctors, Start-up Entrepreneurs, Senior Faculty, Incubators and Accelerators / Technology Business Incubators (TBIs). He also emphasised the commitment of the Dr Moopen's Medical College (DMWIMS) to foster Medical Innovation and encouraged Medical Students / Medicos to explore problem solving and innovation.

Mr Padmakumar, in his opening address, highlighted the overarching goal of the Kerala Medical Technology Consortium (KMTC) of establishing Kerala as the TOP Medical Devices Hub in the country. He drew attention to the significant role that Medical Professionals and Doctors must play in that endeavour by participating in the research, innovation, and entrepreneurship in the Medical Devices / MedTech sector. Citing the examples of Stryker, Abbott, and Terumo, he pointed out the fact that the founders of these behemoths were Doctors

who noticed problems and gaps in healthcare delivery and proceeded to solve these with innovative products / solutions. He signalled the willingness of KMTC to work with serious, passionate, and committed innovators to help establish their innovations as profitable businesses, by leveraging the local assets and advantages of the Kerala MedTech Ecosystem.

Mr Ambika, the Chief Guest, exhorted the delegates / participants to rise to the transient context of Kerala and the world, where Artificial Intelligence (AI) and other Emerging Technologies causing disruptions in all facets of human life, including Healthcare. He pointed to the untapped wealth of intelligence and intellect in the fraternity of Medical Doctors and Healthcare Professionals, who are some of the most capable talents that choose the profession for its impact on patients and society at large.

To pique the curiosity of the young minds and professionals in the delegation, he pointed to the innovative use of AI to discover and develop new drugs faster, by Deepmind, and the need for Medical Professionals to be exposed to these concepts and technologies. He also highlighted the Anti-Ageing domain, within healthcare, as poised to undergo massive growth and demand in the near-term.

He went on to describe the context in Kerala and how it too called for rapid, interdisciplinary innovation to solve the slew of issues that Kerala as a state and community were to face in the coming years. He shared some recent developments and how OpenAI, the tech start-up behind ChatGPT, was looking at solving problems at scale in the Palliative Care sector, specifically in Kerala.

Mr Ambika stressed on the importance of setting up Innovation & Entrepreneurship Cells (IEDCs) in Medical Colleges across Kerala, with linkages to high-performing, mature counterparts in proximate Engineering Colleges. He outlined how the Indian Medical Association (IMA), Kerala Medical Technology Consortium (KMTC) were working with Kerala Start-Up Mission (KSUM) to establish a framework and proposal for the same.

Dr Moopen, then, via a pre-recorded virtual message, addressed the gathering. He started by welcoming the participants and delegates and then outlined Aster Group's commitment to innovation in the Healthcare sector, and his appreciation for the critical work being done by KMTC – bringing together the Kerala MedTech Ecosystem on platforms like the SCM. He promised full support to the initiatives to further and promote the Medical Devices / MedTech innovations in Kerala. He went on to highlight the large and growing network of healthcare institutions under the Aster Group, and the potential to partner with researchers, innovators, and entrepreneurs in developing high quality, cost-efficient innovative products / solutions for better patient outcomes.

He indicated the next phase of innovation and growth in medicine that he called "Medicine 3.0" – a future where healthcare is highly personalised and preventive in nature – and the virtually limitless opportunities for innovation therein.

In his special address, Dr Benaven started out by reaffirming that indeed Medical Professionals

had the best brains, but these brains had slumbered too accustomed to the rhythmic routines of healthcare practice. He gravely pointed out the threat that the healthcare professionals faced from emerging technologies and encouraged the participants and delegates to participate actively in the process of innovation and transition rather than resign to the fate decided by outsiders to the profession. He rhetorically enquired of participants and delegates who were from the medical profession to recall the negative effects of MedTech / Medical Devices that were created by non-healthcare professionals that had no empathy for the patients nor any understanding of the complex processes. He briefly outlined the three areas where he thought medical professionals could really step up and participate in the innovation and entrepreneurship journey – as identifiers and owners of critical problems, as angel investors in Medical Devices / MedTech ventures and as entrepreneurs and innovators themselves. He too underlined the importance of having a space for innovation for healthcare professionals in the Medical Colleges in Kerala, in the form of the IEDCs.

Dr Rijesh K delivered the Vote of Thanks to end the session, highlighting the need for close collaboration between medical professionals, engineers, and entrepreneurs. He also declared Dr Moopen's iNEST's intent of torch bearing the incubation and acceleration of Medical Devices / MedTech innovations at DMWIMS.

KMTC SESSION

KMTC's session was presented by Mr Rohit Philip, Senior Program Consultant, Kerala Medical Technology Consortium (KMTC), Presentation is attached in the Annexure.

3.2. TECHNICAL SESSIONS BY EXPERTS

3.2.1. SESSION BY KERALA STARTUP MISSION

THE MEDTECH STARTUP LANDSCAPE OF KERALA Dr Deepu Krishnan P R, Assistant Manager (Translational Research)

The Kerala Start-Up Mission (KSUM) presentation at the KMTC 8th SCM emphasised Kerala's robust start-up ecosystem, particularly in HealthTech and Life Sciences. The speaker highlighted over 5,000 start-ups, 54 Incubators, and 100+ R&D institutions.

The focus was on the state's intellectual capital, scientific infrastructure, interdisciplinary research, and innovation strategies. Key initiatives include RINK Demo Days, the Fab Lab Kerala Network promoting digital fabrication, and specialised incubators. The session also underscored the availability of R&D grants, mentorship, facilitation, and investment opportunities for healthcare start-ups.

3.2.2. SESSION BY TIMED, SREE CHITRA TIRUNAL INSTITUTE OF MEDICAL SCIENCES & TECHNOLOGY (SCTIMST)

CATALYSING MEDTECH IDEAS INTO SUCCESSFUL VENTURES
Mr Aswin R Krishnan, Project Coordinator

The Technology Incubator for Medical Devices (TIMed) at Sree Chitra Tirunal Institute for Medical Sciences & Technology (SCTIMST) highlighted its support for MedTech innovations in their presentation. TIMed offers state-of-the-art infrastructure, clinical connections, regulatory guidance, mentoring, and funding assistance for healthcare start-ups. They have a focus on innovative ideas, prototype development, and market connect. Some of their notable achievements include significant grants and awards to start-ups like Phraction Scientifics, Evelabs Technologies, and Alicorn Medicals. TIMed actively collaborates with key organisations like KSUM, KMTC and Dr Moopen's Medical College. They also conduct various training and workshops for capacity building in the MedTech sector.

The key advantage of incubating at TIMed is the extensive support that can be leveraged from the domain experts who are part of the institution, which is crucial in aspects like Testing & Validation, Product Development, Preclinical Studies, and Clinical Trials. SCTIMST's variety of infrastructure facilities and accreditations also helps start-ups move forward faster in their lifecycle.

3.2.3. SESSION BY DR MOOPEN'S iNEST, DR MOOPENS MEDICAL COLLEGE (DMWIMS)

FACILITATING MEDICAL TECHNOLOGY INNOVATIONS AT DR MOOPEN'S iNEST
Dr Rijesh Chief Executive Officer (CEO)

The Presentation from Dr Moopen's iNEST, a Department of Biotechnology's (DBT) BIRAC-funded incubator at Dr Moopen's Medical College (DMWIMS), Wayanad, highlighted its strengths and facilities for supporting Medical Devices / MedTech innovations.

The key points shared by the speaker included:

- status as a recognized Medical College / Medical Education Institution with a National Accreditation Board for Hospitals (NABH) Level 2 Accredited Hospital,

- an Indian Council of Medical Research (ICMR) registered Clinical Trials Centre, and a Central Drugs Standards & Control; Organisation (CDSCO) registered Ethics Committee.
- iNEST offers a Digital Health Databank system for AI-enabled research,
- strong mentorship in healthcare technologies,
- collaborations with various partners like Kerala Start-up Mission (KSUM) and Kerala Medical Technology Consortium (KMTC). Dr Moopen's iNEST's focus areas span digital health, biomedical devices, women's health, personalised medicine, blockchain-based solutions, and bioinformatics. Their facilities include various specialised labs and a cell culture facility.

3.2.4. SESSION BY TECHNOLOGY BUSINESS INCUBATOR (TBI), NATIONAL INSTITUTE OF TECHNOLOGY CALICUT (NIT-C)

INCUBATION SUPPORT SYSTEM FOR MEDICAL INNOVATIONS
Dr Preethi M, Chief Executive Officer (CEO)

The presentation by the Technology Business Incubator (TBI) of the National Institute of Technology Calicut (NIT-C) highlighted TBI's support for Medical Devices / MedTech start-ups. Established in 2004, the TBI is sector-agnostic and provides a range of support / services including technical support, mentoring, funding assistance, and product development help.

With 102 companies incubated, including 84 graduates, TBI offers facilities like infrastructure, technical assistance, networking events and meets, business development, employee training, and financial and legal assistance. Their selection process is open year-round, focusing on business plan viability and market research. TBI is also involved in multiple government partnerships and supports innovations in medical fields.

3.2.5. SESSION BY MALABAR CANCER CENTRE'S INCUBATION & INNOVATION NEST (MIINT)

INCUBATION FACILITY AT MCC'S INCUBATION & INNOVATION NEST (MIINT)
Dr Deepak Roshan V G, Associate Professor, Division of Genetics and Cytogenetics, Malabar Cancer Centre (MCC)

The Malabar Cancer Centre's (MCC) recently initiated Incubation and Innovation NesT's (MIINT) session showcased its role as a comprehensive Cancer Care Centre and Research Institution.

MIINT offers facilities like Cell Culture, Genomics, Molecular Biology, and Biochemistry Labs, alongside clinical associations in various oncology specialties.

The speaker shared that their program emphasises Translational Research, Clinical Trials, and Biomedical Waste Management. It provides mentorship and space for start-ups, integrated with its strong ties with national and international institutions, pharma, and technology firms for collaborative research and innovation in oncology.

3.3. INTERACTIVE PANEL DISCUSSION SESSIONS

3.3.1. EXPERT PANEL DISCUSSION – INCUBATING & ACCELERATING MEDTECH GROWTH: OPPORTUNITIES, CHALLENGES, AND ECOSYSTEM STRATEGIES

An interactive session with expert speakers – from previous sessions – was conducted to discuss the significant role of Incubators and Accelerators in the success of MedTech innovations, and to answer pertinent queries from delegates / participants. The discussion was moderated by Dr Rijesh K, Chief Executive Officer (CEO), iNEST, Dr Moopen's Medical College (DMWIMS). The following experts were the expert panellists in the discussion:

1. **Mr S Balram**, Chief Executive Officer, TIMED, Sree Chitra Tirunal Institute for Medical Sciences and Technology
2. **Dr Deepu Krishnan P R**, Assistant Manager (Translational Research), Kerala Start-up Mission
3. **Dr Preethi M**, Chief Executive Officer, Technology Business Incubator, National Institute of Technology Calicut
4. **Dr Deepak Roshan V G**, Associate Professor, Division of Genetics and Cytogenetics, Malabar Cancer Centre

Here are some thoughts and insights summarised from the discussion:

1. The Secret of Success in Medical Devices / MedTech Innovation in the US:
    - Discussed evaluating reasons behind the success of Medical Devices clusters in USD.
    - Highlighted the critical need for more innovation in the Indian Medical Devices / MedTech sector.

2. Entrepreneurs and Innovators Selecting Incubators for Their Journey:

    - Emphasised the importance of talking to multiple incubators and accelerators, before deciding on the right fit.
    - **Highlighted key factors for consideration: specialised infrastructure,** laboratories and testing facilities, and co-incubation centres.

3. Effective Scaling Up Strategies for Start-Ups and Ventures:

    - Discussed strategies for scaling up, including increasing geographical market coverage, and securing funding.
    - Emphasis on potential support specifically from each of the Incubators / Ecosystem Enablers represented: TIMed SCTIMST, KSUM, NIT-C, MIINT and Dr Moopen's iNEST.
    - Discussed appropriate incubators for social impact ventures: Social Alpha, Villgro, and hospital chains.

4. Increasing Awareness and Education in Innovation & Entrepreneurship:

    - Recognized the need for more awareness about initiatives at Incubation facilities like TIMed and Dr Moopen's iNEST.
    - Suggested promotion through educational programs, especially for neglected sectors like Traditional Medicine / AYUSH.
    - Informed about the upcoming state-level IEDC workshops for medical institutions.

5. The Diverse Needs of Start-ups:

    - Addressing the difficulty that start-ups in the sector faced in Go-To-Market and KSUM 's "Fail Fast to Succeed (FFS)" program was discussed where start-ups would get an opportunity to try out different strategies to arrive onto the ones that result in success for them.
    - Suggested for the setting up of an expert mentor pool by KMTC to guide start-ups. KMTC responded, informing that such a loose set of experts and mentors do exist in the network of KMTC and advised start-ups to reach out with specific requests.
    - Suggested exploration of co-incubation possibilities, like with NIT-Trichy, to leverage more support as per the specific requirements of the venture.

6. Regulatory Challenges to Innovation:

    - Discussed the various challenges faced by start-ups, particularly in regulatory aspects – uncertainty in approval times, overlapping rules, high cost.
    - Conveyed the importance of addressing clinical trial complexities and securing adequate investments.
    - Suggested to KMTC to develop a simple and easy-to-follow Process Flow Chart for the Regulatory Compliances required by the product / solution and to guide

start-ups through the development process.
- Stress the importance of detailed documentation in Medical Devices development.

7. Starting from Real-World Problems:
    - Encouraged interdisciplinary education and interaction from an early stage to foster better collaboration and innovation.
    - Emphasised the significance of curiously exploring real-world problems, with equal participation from Healthcare Professionals, in nurturing problem-solving and creativity.

8. Quality and Regulatory Standards:
    - Expressed the need to call for stricter regulations to attract serious players in the industry and ensure high quality for patient safety and better outcomes.

9. Collaboration Among Incubators in Kerala to Enhance Support for Incubate-es:
    - Suggestion to explore deeper and Incubation Program-specific collaboration / partnership between various complementary Incubators and Accelerators in Kerala – to enhance the support and facilities provided to Start-Ups. Leverage strengths of each and minimise weaknesses or gaps by supplementing with support from other facilities in the state.

3.3.2. EXPERIENCE SHARING SESSION – DOCTORS TO ENTREPRENEURS: SHAPING THE FUTURE OF MEDTECH ENTREPRENEURSHIP & INNOVATION

Another discussion session aimed at helping Healthcare Professionals and Medical Students understand how the journey of entrepreneurship was for a few Doctors well on their way to scaling up their ventures, was organised in the second half of the SCM. The session was moderated by Dr Joseph Benaven, President, Indian Medical Association (IMA) – Kerala Chapter, and included the following healthcare professionals turned innovators and entrepreneurs:

1. **Dr Nadeem Shah Hamzath T A**, Founder, Chief Executive Officer and Managing Director, Apothecary Medical Services
2. **Dr Shaji Ayillath**, Founder & Director, 64 Codon Pvt. Ltd
3. **Dr Lini Basil**, Founder and Chief Executive Officer, Bylin MedTech Pvt. Ltd

Here are some of the insights and thoughts summarised from the discussion:

1. Initiation into Exploring Entrepreneurship

- The discussions established that the panellists had personal stories that inspired them or pushed them into entrepreneurship – and curiosity, persistence played a major role in navigating the journey.
- Importance of resilience, grit, and determination in entrepreneurship – failures can't be looked at as the end of the journey.
- Starting up in the MedTech space is not for the faint of heart, considering the longer gestation period and higher risks. Those who plan to start-up should be presented with the tough choices and difficult circumstances they will have to contend with in their quest, so that they can make an informed choice.
- Identification of feasible / worthwhile problems to solve is another critical factor that determines success – and if Doctors turn Entrepreneurs, they have an edge in this area over others in the MedTech domain, due to their ability to access clinical settings.

2. The Maze of Challenges:
    - Financial challenges, investment, and sustaining the business.
    - Dealing with uncertainty in entrepreneurship.
    - Sacrificing support systems of corporate hospitals.
    - Caution against early successes, while failures being opportunities to rethink and pivot into developing better systems, products, or solutions.

3. Use of Technology, the Process of Innovation:
    - Looking at the latest tools and technology available or emerging in the market to see how better products can be developed faster for example, Dr Shah Hamzath's exploration of the Metaverse and its potential as a technology to deliver effective Emergency Care.
    - Future focus on technologies like haptic gloves, smart glasses, and VR.

4. Medical Education and Exposure:
    - Emphasis on the role of doctors in medical device companies.
    - Importance of broad-based knowledge and exposure for medical students.
    - Lack of exposure for medical students beyond medicine.
    - Advocacy for collaboration between medical and engineering students.

5. Regulatory and Market Challenges:
    - Regulatory challenges in the medical device industry.
    - Understanding the time and financial investment in regulatory processes.
    - Addressing challenges in marketing, including low acceptance of new concepts.
    - Importance of handholding for start-ups and the preference of doctors for branded products.

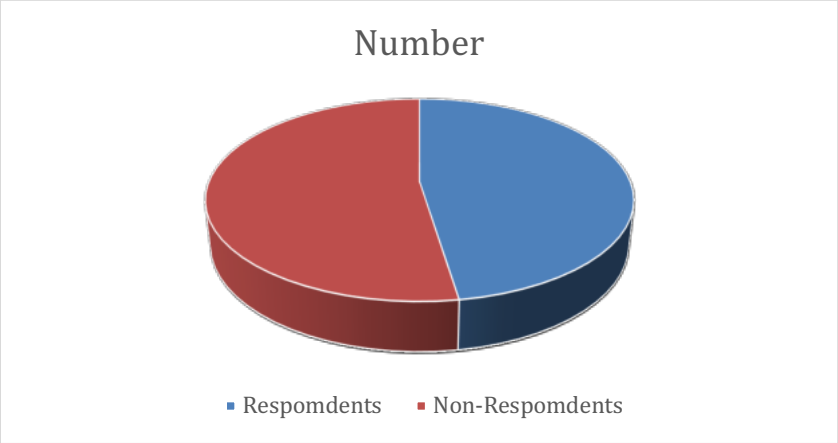
6. Future Focus Areas:
    - Future medical care will be decided by patients and the market.
    - Focus on chronic illness patients and biomaterials in the future.
    - Marketplace events organised by medical associations.

7. Collaboration and Leadership:
    - Advocacy for doctors leading medical device companies.
    - Collaboration between incubators, accelerators, and medical associations.

4. MEET FEEDBACK FROM DELEGATES

Feedback was collected from participants via an online form, towards the end of the Meet with a few questions for quantitative measure of the relevance, quality, and the overall event and some for qualitative feedback and suggestions.

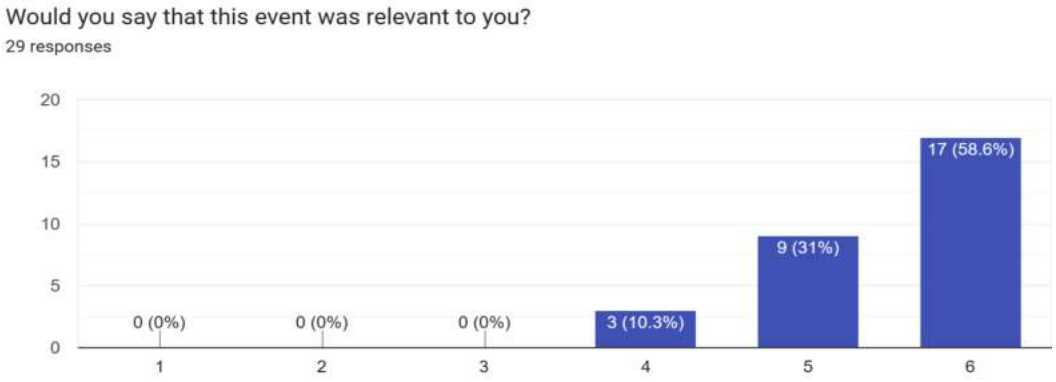
Out of a total of 61 delegates / participants / speakers present at the Meet, feedback was received from 29 respondents. Therefore, the feedback was provided by around 48% of the participants.



4.1. OBJECTIVE FEEDBACK

Here are the graph visualisations for the quantitative feedback collected from participants.

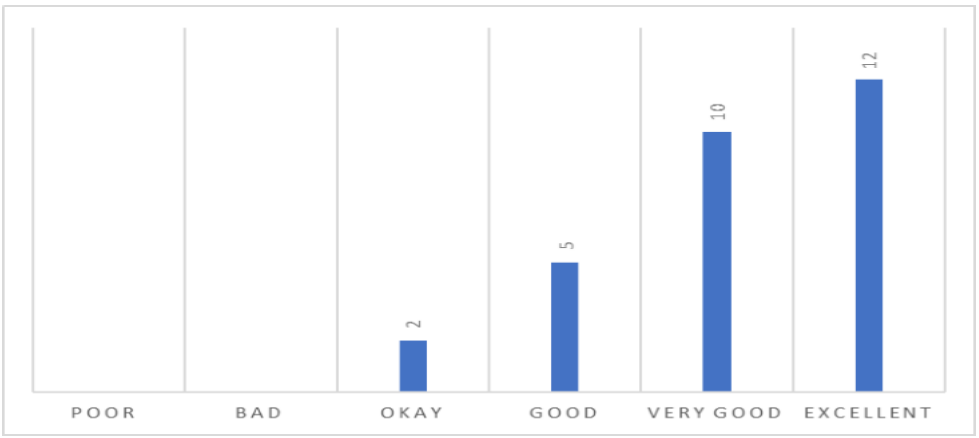
4.1.1. Relevance of the Meet for the Participant



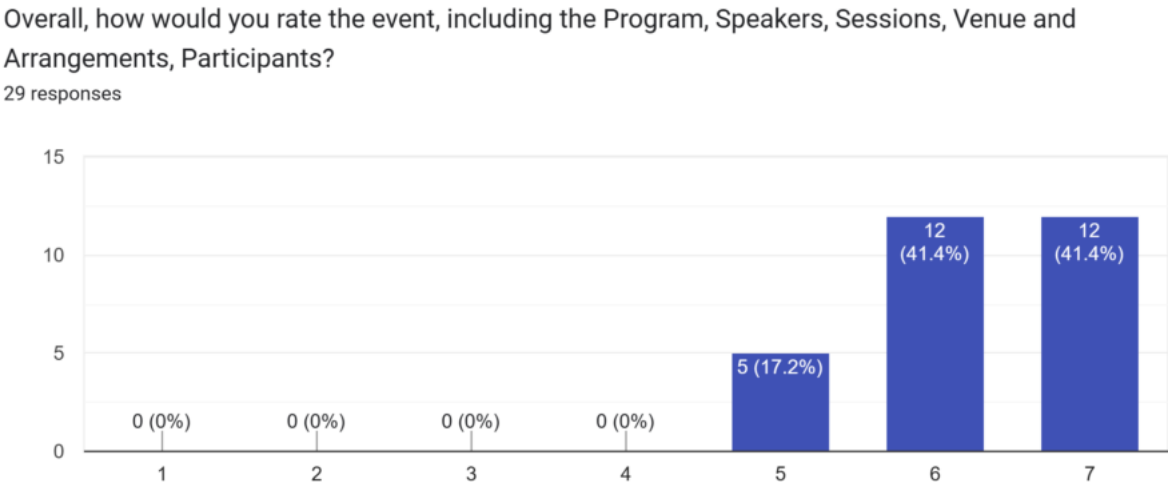
The rating scale used in the survey question above is tabulated below with the corresponding description of each rating point.

1	2	3	4	5	6
Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree

4.1.2. Quality of Speakers and Peers, and Theme / Content in the Meet



4.1.3. Overall Rating for the Meet by the Participant



The rating scale used in the survey question above is tabulated below with the corresponding description of each rating point.

1	2	3	4	5	6	7
Waste of Time						Excellent! We Need More Such Events

4.2. SUBJECTIVE FEEDBACK

After analysing the qualitative feedback from the participants, the major areas and sentiments expressed can be summarised as follows, prioritising the most repeated ones:

Inclusion and Representation:

- Need more informative and demonstrative sessions in the upcoming programmes.
- It would be much more informative if people related to scientific fields are also being part of these forums.
- Incorporate Success and Failure Stories
- Bring founders who have international business or have successfully exited.

Suggestions:

- Need for More Events
- Individual one to one Sessions
- Ensure the communication of such events to all start-ups working in the MedTech segment.
- Extended Stay for Medical Students
- Diverse Panel Discussions
- Participation of entrepreneurs in various stages and end users will be beneficial.

5. ANNEXURE

5.1. LIST OF EXPERTS / SPEAKERS / RESOURCE PERSONS

#	NAME	DESIGNATION	INSTITUTION
1	Dr Deepu Krishnan P R	Assistant Manager (Translational Research)	Kerala Start-up Mission
2	Mr Aswin R Krishnan	Project Coordinator	Timed, Sree Chitra Tirunal Institute for Medical Sciences and Technology
3	Dr Rijesh K	Chief Executive Officer	iNEST, Dr Moopen's Medical College
4	Dr Preethi M	Chief Executive Officer	Technology Business Incubator, National Institute of Technology Calicut
5	Dr Deepak Roshan V G	Associate Professor, Division of Genetics and Cytogenetics	Malabar Cancer Centre
6	Mr Balram S	Chief Executive Officer,	TIMed, Sree Chitra Tirunal Institute for Medical Sciences and Technology
7	Dr Joseph Benaven	President	Indian Medical Association (IMA) – Kerala Chapter
8	Dr Nadeem Shah Hamzath T A	Founder, Chief Executive Officer, and Managing Director	Apothecary Medical Services
9	Dr Shaji Ayillath	Founder & Director	64 Codon Pvt. Ltd
10	Dr Lini Basil	Founder and Chief Executive Officer	Bylin MedTech Pvt. Ltd

5.2. LIST OF DELEGATES / PARTICIPANTS

#	NAME	DESIGNATION	ORGANISATION
1	Abdul Rahman	Founder	Naylam Solutions
2	Ajoy C Joy	Technical Manager	Envolv Innovations Pvt Ltd
3	Arun Krishna	Director Hospex	Trithvam Integris Pvt Ltd
4	Athira A	3rd year MBBS	Dr Moopen's Medical College
5	Bijinesh B	Manager, Systems and Processes	Harrisons Malayalam Limited
6	Bini V B	MBBS student	Dr Moopen's Medical College, Wayanad
7	Dr Abdul Raoof MP	Assistant professor	Malabar Medical College, Calicut
8	Dr Bindu B R	Assistant professor	Shree Vidyahiraja Homoeopathic Medical College
9	Dr Jose Mathew	Professor, MED	NIT Calicut
10	Dr Mohammed Shea C K	CEO	Tertius Life Sciences Pvt Ltd
11	Jeyakar (Jayakar) Joseph Johnson	Prospective Student in Biomedical Engineering, Doctor of Philosophy, UTSA, UTSA	Department of Biomedical Engineering & Chemical Engineering, KLESSE College of Engineering and Integrated Design, UTSA, Texas.
12	Jolly Jose Pynadath	CEO and Co-Founder	Ease Dementia Technologies Pvt Ltd
13	Keerthy V	MBBS	Dr Moopen's Medical College
14	Mohamed Salim	Founder	AutoscanOBD
15	Mohammed Bava	Research Analyst	Tertius life sciences Pvt. Ltd.
16	Niranjan	President Managing Director Managing Partner Investor -	APMEI for Radiology KPI Healthcare India (P) Ltd., Probe Lab India Digimed India
17	Prajeesh Kurup	Partner	Aswini Diagnostic Services
18	Rony K Roy	Sr. Fellow KSUM	Kerala Start-up Mission
19	Sarat Chander C	Head of Product Engineering & Strategy	Journyz (www.journyz.com)
20	Shonu Shomon	CEO	Aviasys Technologies Pvt Ltd
21	Soumya P B	Professor	Sree Anjaneya College of Nursing,

			MMC Campus, Kozhikode
22	Sunil Cheruvilly	DGM-Operations	Atal Incubation Centre-BIMTECH, Greater Noida, Uttar Pradesh
23	Rincy K	Assistant Professor	Dr Moopen's College of Pharmacy
24	Divya K Martin	Assistant Professor	Dr Moopen's College of Pharmacy
25	Anju TS	Associate Professor	Dr Moopen's College of Pharmacy
26	Galiya Nahan N A	Assistant Professor	Dr Moopen's College of Pharmacy
27	Sudhi B	Assistant Professor	Dr Moopen's College of Pharmacy
28	Dhilin P M	Associate Professor	Dr Moopen's College of Pharmacy
29	Jeeva J	Professor	Dr Moopen's College of Pharmacy
30	Saranya T V	Assistant Professor	Dr Moopen's College of Pharmacy
31	Sreenadh P K	Assistant Professor	Dr Moopen's College of Pharmacy
32	Dr Fasalu Rahiman OM	Professor	Dr Moopen's College of Pharmacy
33	Vignesh C	Assistant Professor	Dr Moopen's College of Pharmacy
34	Dr Sebin Thurigue	Assistant Professor	Dr Moopen's College of Pharmacy
35	Irina V M	Assistant Professor	Dr Moopen's College of Pharmacy
36	Anupriya A B	Assistant Professor	Dr Moopen's College of Pharmacy
37	Amjada Jasmin E	Assistant Professor	Dr Moopen's College of Pharmacy
38	R S Tampi	Business Head	Aspinwall Trivandrum
39	Vishnu Prasad	Business Head	Star Radiance Medical, Chennai
40	Anool Kumar	Professor	Dr Moopen's College of Pharmacy
41	Dilip Krishnan	Professor	Dr Moopen's College of Pharmacy
42	Rajesh R S	Professor	Dr Moopen's College of Pharmacy
43	Aadi Sathyan	Assistant Professor	Dr Moopen's College of Pharmacy
44	Dr Jiji Jose	Professor	Dr Moopen's College of Pharmacy
45	Linta Thomas	Lecturer	Dr Moopen's College of Pharmacy
46	Nandana C T	Junior Scientific Assistant	Dr Moopen's College of Pharmacy
47	Sruti C	Junior Scientific Assistant	Dr Moopen's College of Pharmacy

5.3. SESSION PRESENTATIONS

[Apart from the following presentations, more information is available on request - please get in touch with KMTC (Rojini A R at rojini.kmtc@gmail.com, if you are interested in more details on any session or presentation or want to get in touch with the institution.]

5.3.1. SESSION 1 - KERALA STARTUP MISSION

RESEARCH INNOVATION NETWORK KERALA

KERALA's STARTUP ECOSYSTEM

5000+ Startups

500 + Startups
HealthTech, Life science & allied areas

54 Incubators

100+ R&D Institutions

Grants, VC/Angel funds, FoF & Schemes

Research Incubation & Innovation Programs

RESEARCH INNOVATION NETWORK KERALA

INNOVATION AND ENTREPRENEURSHIP DEVELOPMENT CENTRE

R&D Landscape of Kerala

- Intellectual Capital
- Scientific Infrastructure
- Inter disciplinary Research & Innovation strategies

RINK DEMO DAYS & EXPOSURE VISITS

R&D Institutions hosted RINK DEMO Day

CSIR-NIIST

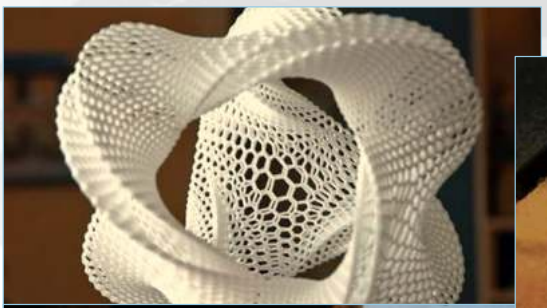
C-DAC
Thiruvananthapuram

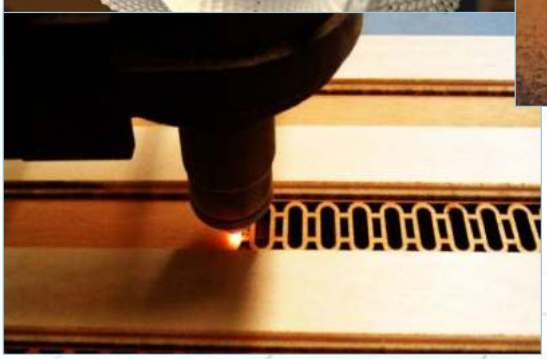
SCTIMST
Thiruvananthapuram

KERALA STARTUP MISSION

PLAY
Fab Lab Kerala Network

Experimenting with Digital Fabrication





- Network of 1 Super fab & 22 Fab Labs across Kerala
- High precision machining capabilities
- R&D projects & Trainings

HEALTHCARE STARTUPS

HEALTCARE STARTUP SUPPORTS

- SPECIALISED INCUBATORS
- R&D GRANT
- MENTORS & FACILITATORS
- INVESTMENTS

Huddle Global 2023

Evangelizing Technology & Entrepreneurship

Opportunities with Startups - Start your own business - Kochi

Opportunities with Startups - Trivandrum

KERALA STARTUP MISSION

THANK YOU

5.3.2. SESSION – TIMED, SREE CHITRA TIRUNAL INSTITUTE FOR MEDICAL SCIENCES AND TECHNOLOGY

CATALYSING MEDTECH IDEAS

TIMed
Sree Chitra Tirunal Institute for Medical Sciences and Technology
be smart, be a part

TIMed
Sree Chitra Tirunal Institute for Medical Sciences and Technology
be smart, be a part

TECHNOLOGY BUSINESS INCUBATOR FOR MEDICAL DEVICES AND BIOMATERIALS

Promoted by & Hosted at

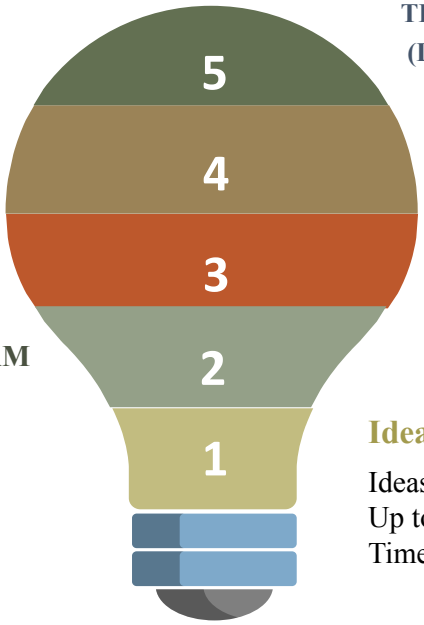
Sree Chitra Tirunal Institute for Medical Sciences & Technology

TECHNOLOGY TRANSFER AND INTELLECTUAL PROPERTY SERVICES (TIPS)

Academia industry linkages
IP portfolio management
Technology transfer activities
Trainings/Capacity Building

SOCIAL INNOVATOR'S PROGRAM

Innovative social idea to prototype
50,000/- monthly fellowship,
project grant – 5 lakhs rupees



TECHNOLOGY BUSINESS INCUBATOR (DST Supported)

Incubator for medical devices

SEED SUPPORT

Seed Funding support –
5 lakhs to 25 lakhs rupees for start ups & companies.

Idea to prototype

Ideas into Prototype.
Up to 10 lakhs rupees funding
Timeline :12 months

Partnering Organizations

NIDHI-SEED SUPPORT SCHEME
Seed investment for early stage startups

DST NIDHI
START-TO-SCALE STARTUP SUPPORT

birac
Ignite Innovate Incubate
nbm

birac
Ignite Innovate Incubate
SPARSH Fellowship

TIPS

KERALA
STARTUP MISSION

TiE KERALA
FOSTERING ENTREPRENEURSHIP

SCTIMST TIMed offerings

- Infrastructure
  - Clean room – class 10000 – Pilot manufacturing facility
  - Lab space and core lab equipment's

SCTIMST TIMed offerings

For healthcare startups

- Clinical connect
- Regulatory guidance
- Medical Standards related awareness
- Mentoring
- Fund raising
- Business plan development
- Market connect

SCTIMST TIMed ecosystem

ACHIEVEMENTS

- Phraction Scientifics - BIRAC BIG Grant (Rs.50 Lakhs)
- JITO Angel Network invests $2,00,000 in Evelabs Technologies
- Evelabs Technologies - ICMR research grant (Rs. 50 lakhs) - mPRiDE program
- Alicorn Medicals – Research grant (Rs. 20 lakhs) - Kerala Startup Mission for the development of Instaderm product
- Alicorn Medicals - Manufacturing license for the wound healing project- Cholederm (technology transferred from SCTIMST)

ACHIEVEMENTS

- Bylin Medtech - Rs 30 lakhs grant (SBIRI, BIRAC) for clinical trial of the oral patches
- Indian Patent was granted to Dr. Lini Basil of ByLin Medtech for oral patch for dry mouth patients
- Dr. Lini Basil - Tie Kerala Chapter winner for the year 2022 and represented India in TiE Global event as one among the top 7 entrepreneurs from India.
- OralScan from Sascan Meditech won Quality Innovation Award in the healthcare sector
- Sascan Meditech and Evelabs Technologies were selected for participation in ArabHealth Expo by Kerala Startup Mission. Oral Scan of Sascan and Dripo of Evelabs were also displayed at BIOASIA 2023 at Hyderabad by KSIDC in the Kerala Pavillion

BIRAC- SBIRI
Small Business Innovation Research Initiative

QUALITY INNOVATION AWARD
Health care sector innovations

TIMed Activities

TIMed New incubatees

- **Mrs. Sujatha Manoharan & team – January 2023**
  - *Developing Collagen hydroxyapatite scaffold for orthopaedic applications*
- **CorNovum Science and Technology Pvt. Ltd – March 2023**
  - *Founded by Dr Kona Samba Murthy, a reputed cardiac surgeon*
  - *Development of a Total Artificial Heart*

DST STARTUP UTSAV New Delhi

- Sascan Meditech Pvt Ltd and Evelabs Technologies Pvt Ltd - showcased among the top 75 startups
- Dr. Subash Narayan, founder of Sascan Meditech Pvt Ltd was one among the three startups chosen to share the success story.

BIRAC startup expo, New Delhi

Sascan Meditech Pvt Ltd and Evelabs Technologies Pvt Ltd were selected for exhibiting their products among the chosen 75 startups in this event.

Dr Lini Basil (Bylin Medtech Pvt Ltd) , recognised among the 75 women entrepreneurs.

COLLABORATIONS

KERALA STARTUP MISSION

COLLABORATIONS

DR. MOOPENS MEDICAL COLLEGE, WAYANAD

TRAININGS/WORKSHOPS

Dr. Balagopal.
Former Medical director, Abott
“ Innovation to market “

TIFAC & SIDBI team

SRIJAN funding awareness

TRAININGS/WORKSHOPS

Startup day Jan 2023

Release of booklet on IPR – “IPR for startups”

Donation of Biocalculus to cardiology Dept, SCTIMST by Hon Director – Dr. Sanjay Behari

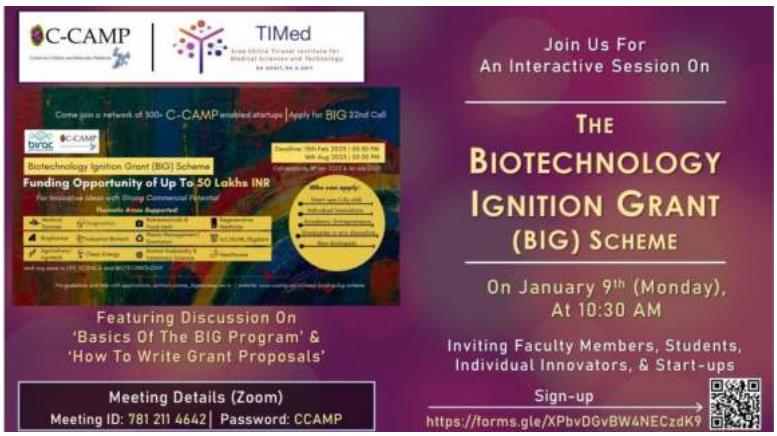
Release of kick start grant to SIIP fellows by Hon Director – Dr. Sanjay Behari

Mentoring support

- Kerala Startup Mission,
  - Innovation grant
  - Scaleup grant
  - Research grant
  - RINK
- TiE Kerala
  - Capital Café
- Maker Village
  - DST NIDHI Healthcare Accelerator program

Mentoring healthcare innovators – TiE Kerala – Capital Café

Ecosystem partner



INCUBATION PARTNER

Ecosystem partner

Visitors

Padmashri Dr. K.M. Cherian

Invest India team visit

Visitors

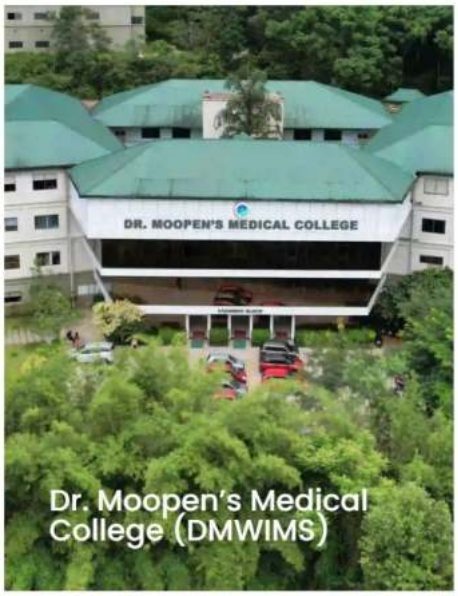
Dr. Mohanan Kunnummal Kerala University of Health Sciences (KUHS) Vice Chancellor

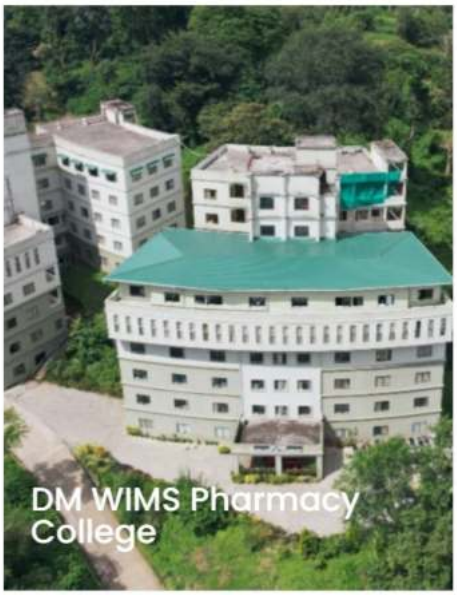
SITRA team visit

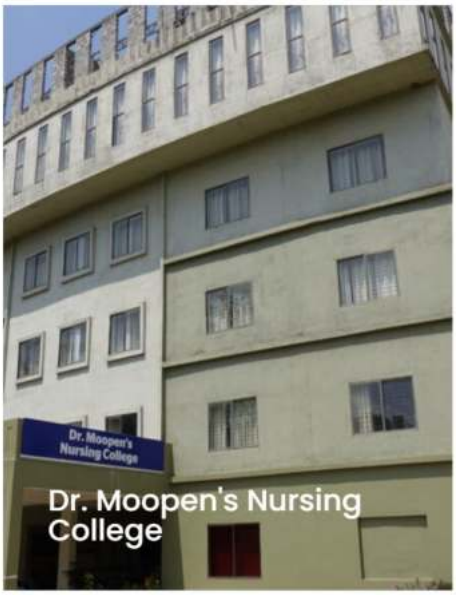
5.3.3. SESSION 3 – INEST, DR MOOPEN'S MEDICAL COLLEGE

Dr. Moopen's Medical College, Wayanad

Dr. Azad Moopen
Chairman & Managing Trustee



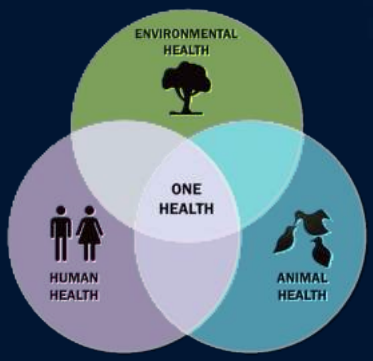




- Recognized Medical College with NABH Level 2 accredited hospital
- ICMR registered Clinical Trial Centre
- CDSCO registered Institutional Ethics Committee
- Digital Health databank system enabling data centric AI enabled research
- Strong mentor base in Healthcare technologies involving Biotech, Biomed, IoT & AI, Digital Health, Healthcare economics/management, bioinformatics and blockchain
- Collaboration with Kerala Startup Mission, HDFC Smartup, IIIT Kottayam, Kerala Medical Technology Consortium, IIT-Palakkad, NIT Calicut, SCTIMST and other ecosystem partners
- Network healthcare organizations of Aster DM Healthcare spanning to 377 establishments in 15 countries

- Digital Health (IoT/AI/ML/AR/VR)
- BioMedical Devices & Diagnostics
- Women's Health & Maternal Care
- Personalized Medicine & Genomics
- Blockchain & Bioinformatics
- Biomaterials & Tissue Engineering

Focus Area



OUR STRENGTHS

01 Recognized Medical College with NABH Level 2 Accredited Hospital

02 IT Infrastructure with HIS, LIS & PACS & Clinical Simulation lab

03 Clinical Laboratories & Radio-diagnosis units

04 ICMR registered Clinical Trail Centre

05 CDSCO registered Institutional Ethics Committee

06 Digital Health Databank Ecosystem

07 DSIR Recognised Biomedical Research Laboratory

08 Strong Mentor Base in Healthcare Technologies

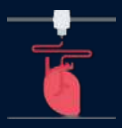
09 Network Healthcare Organizations of Aster DM Healthcare

10 Collaborations with ecosystem Partners

OUR FACILITIES

- MOLECULAR BIOLOGY LAB
- BIOCHEMISTRY/ PROTEOMICS LAB
- MICROBIOLOGY LAB
- BIOMATERALS LAB
- PLANT BIOACTIVES AND BIOPROCESSING LAB
- CELL CULTURE FACILITY
- IMMUNOHISTOCHEMISTRY LAB
- DIGITAL HEALTH
- BIOMEDICAL TECHNOLOGY

TECHNOLOGY PLATFORMS:



- 3D Bioprinting of Tissues & Organs
- Immuno-therapeutics
- Recombinant Therapeutics

- Biomedical Devices
- Nanomaterials
- Polymer synthesis/ Scaffold preparation

- Regenerative Medicine & Tissue Engineering: StemCells/Bio Materials, *In Vitro Diagnostics(IVD)*
- Hydrogels and wound care materials

WORK SPACE

OUR PARTNERS

Contact Us:

Dr. Rijesh K, PhD ,Chief Executive Officer,
Email: ceobioincubator@drmoopensmc.ac.in
Mr. Varun R, Program Manager,
Email: varun.r@asterdmhealthcare.com

Dr. Moopen's iNEST

Dr. Moopen's iNEST (@DrMoopens_iNEST) / X (twitter.com)

5.3.4. SESSION 4 – TECHNOLOGY BUSINESS INCUBATOR, NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

Technology Business Incubator
NIT Calicut

Dr. Preethi M
CEO

KMTC 19.01.2024

NIT CALICUT

- Host Institute (NIT Calicut) has 15 academic departments and many labs for each department
- 16 multi disciplinary centres
- 11 thematic centres
- 8000+ students at UG, PG and PhD level
- Approximately 400 faculty with expertise in various fields.

KMTC 19.01.2024

Technology Business Incubator NIT Calicut

Established in 2004

Society registered under Societies Registration Act 1860

- Sector agnostic
- Open to all innovators
- Services offered to startups
  - ✔ Technical
  - ✔ Mentoring, marketing
  - ✔ Funding, documentation, auditing
- Product startups are normally selected – to help them for the product development

KMTC 19.01.2024

Incubator strength on outreach activities and communication

Have conducted 50+ business development training programmes for the entrepreneurs of the region, including 10 programmes specifically for women

Incubator and Institution Innovation Council (under Ministry of Education, GOI) are mentoring students' innovative projects (NITC) and aslo innoative clubs in the nearby colleges and schools for innovation promotion

Incubator has completed Cluster Development projects in coir sector and agri sector which benefitted 500+ artisans

Part of Network of all the 375 Innovation and Entrepreneurship Development Centres of Kerala so that the innovative ideas can be sourced form the entire state- Also implementing agency for YIP,IEDC,KSM etc

KMTC 19.01.2024

Companies incubated

- Total number of Companies incubated : 102
- Number of graduated companies : 84
- Number of current incubatees : 18
- Number of graduated companies that are not in business : 22

Major Assistances Provided

- Incubation of start ups
- Infrastructure
- Mentoring
- Technical assistance
- Networking
- Business Development Assistance
- Training-employees
- Financial assistance
- Secretarial assistance
- Technology transfer
- Legal and statutory assistance
- Pre-incubation support

KMTC 19.01.2024

Facilities at TBI NITC

Associated Govt. Departments

- Department of Science and Technology, Govt. of India (DST)
- Technology Development Board (TDB), Govt. of India
- Ministry of Electronics and Information Technology, Govt. of India. (MeitY)
- Ministry of Micro Small and Medium Enterprises (MSME)
- iDex - Defence Innovation Organization (DIO)
- MoE
- Kerala Government

Selection/Admission/Incubation

Selection – open through out the year

Expert committee meets in 2-3 months for selection and monitoring

- Selection based on the business plan submitted
- technical, financial and market viability
- Duration of Incubation : 3 years
- Good team having done an extensive market research

NIDHI PRAYAS

- Assistance for prototype development
- Financial assistance up to 10 lakhs
- Patentable product development
- 18 months time
- Start up registration at the end of the development

Other Schemes

MSME Incubator

iDEX Innovations for Defence Excellence
PM Awardee

KMTC 19.01.2024

Devices developed by incubatees

Ibis Medical
Committed to Next Generation

Robot assisted physiotherapy

LED based phototherapy


Actual Device attached to the Leg


Device controlled via Tablet - Man

KMTC 19.01.2024

Devices developed by incubatees

- AYURVEDIC AUTOMATED OIL BANDAGE STRAP
- AI enabled HIGH FLOW NASAL OXYGEN THERAPY DEVICEFelixa Care

KMTC 19.01.2024

Innovations related to medical field at TBI NITC

KMTC 19.01.2024

Thank you!!

KMTC 19.01.2024

5.3.5. SESSION 5 – MALABAR CANCER CENTRE MIINT

Malabar Cancer Centre
Postgraduate institute of Oncology Sciences & Research

Incubation facility at MCC

MIINT

MCC **I**ncubation and **I**nnovation **N**es**T**

About MCC-PGI OSR

a) Institute with Research, Academics and Centre for treatment of cancer

b) Under graduate, post graduate, doctoral and post doctoral program for medical and non medical feild.

c) 200+ bedded NABH accredited second largest cancer centre in Kerala including 15 Departments and 39 Divisions

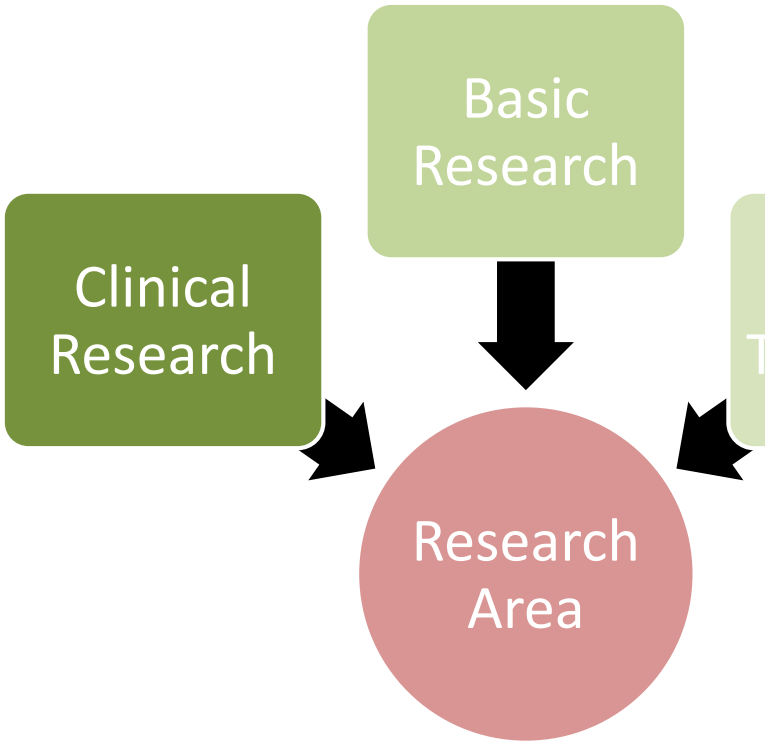
d) Member of Union for International Cancer Control (UICC) and NCG

e) Research Centre under Kerala University of Health Sciences (KUHS) and Kannur University

f) Research collaborations with various research institutions

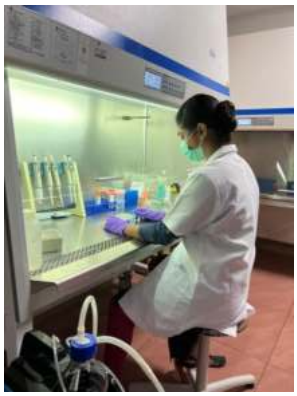
g) 65 Academic Staff

About MCC-PGI OSR



Facilities -Lab

Cell culture facility



Fluorescence Microscope with FISH work stations

Genomics facility

Bio bank

Biochemistry

Pathology

Facilities -Lab

Microbiology

Facilities – Clinical Research

Infrastructure	
DSIR -SIRO	Registered under DBT, Govt of India
Institutional Ethics Committee	Registered under CDSCO and DHR, Govt of India
Institutional bio safety Committee	Registered under DBT, Govt of India
Clinical Research Area/facility	well established Clinical research department and infrastructure
Consenting Area/facility with Audio Visual recording	Facility for adequate consenting area with audio video recording
Biological sample collection, processing and storage facility	Clinical Research Laboratory Service and Translational Research (CLS&TR) have well established facility for sample collection, processing and storage facilities. Awaiting for NABL accreditation
IP Storage Facility	Research Pharmacy have a dedicated space for IP storage
IP destruction/ disposal policy and facility	MCC has well established biomedical waste management facility and policy in place
Bio medical waste disposal policy and facility	MCC has well established biomedical waste management facility and policy in place
Study Archival Facility	Study documents archival facility is available in the Medical Records Division
Training	Conducting GCP and Research Methodology training to all faculties and Research study team annually

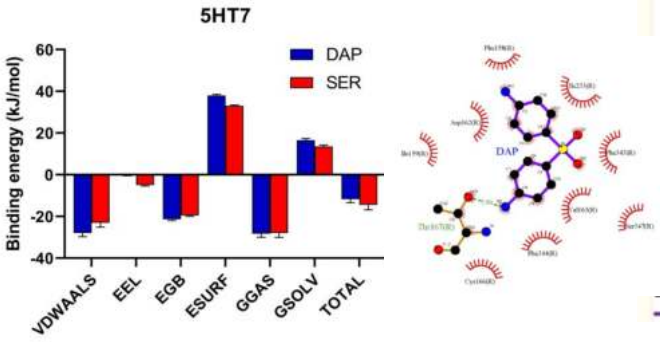
Facilities – Clinical Research

BIRAC Clinical Trial Network (BIRAC-CTN)

On going Research

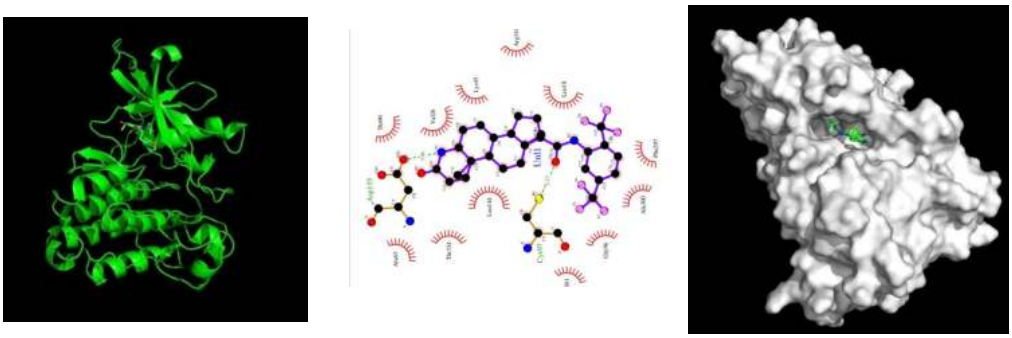
Drug Repurposing

Breast Cancer –TNBC – antibiotics 12000



Lung Cancer – EGFR- 5 alpha reductase inhibitor

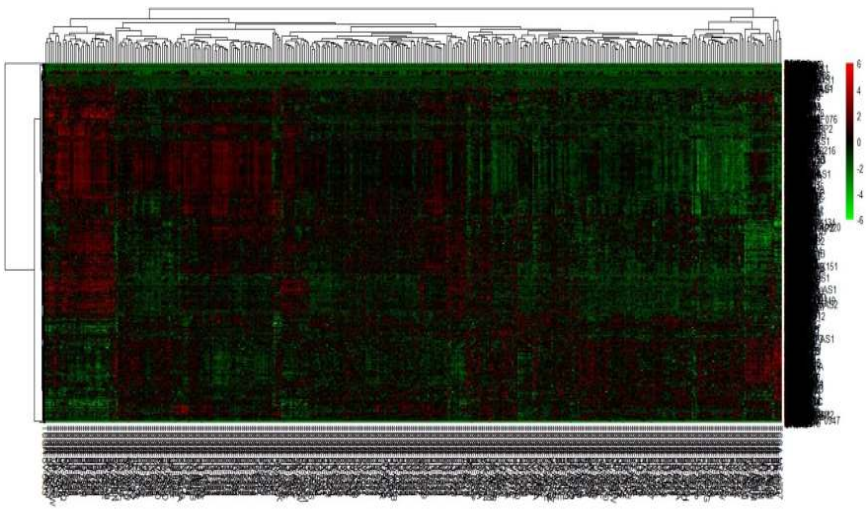
1680



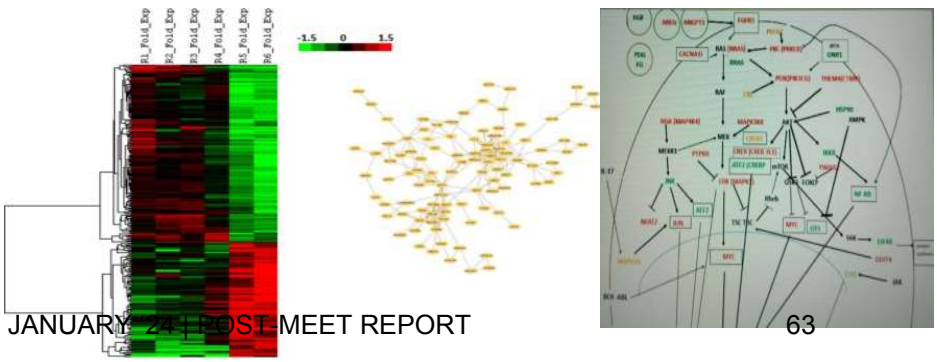
On going Research

Cancer biology

Oral Cancer



CML

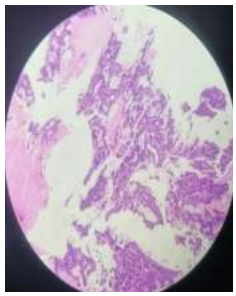


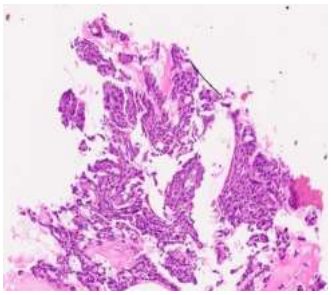
On going Research

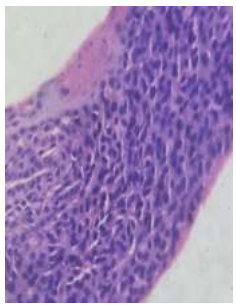
Cancer biology

3 D Culture

Phase 1 cell line







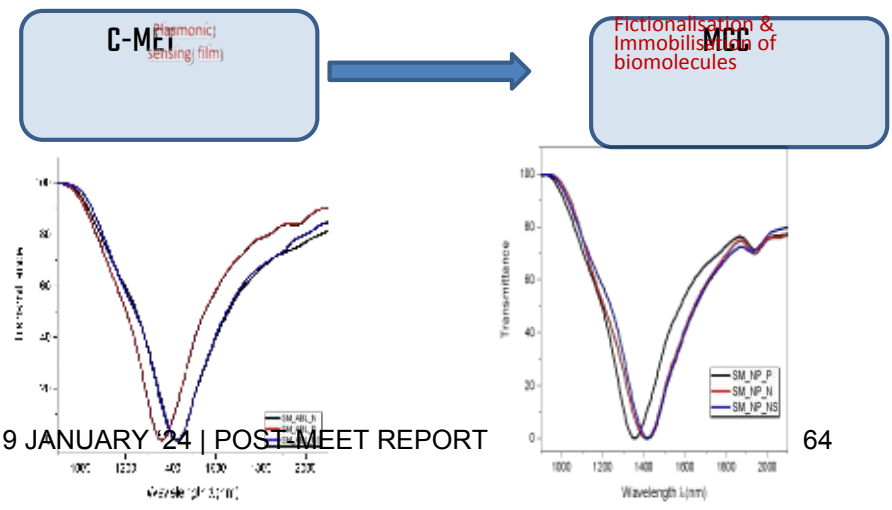
We developed 3t3 differentiation in our 3D system

On going Research

Cancer Device

Breast Screening Device

Biomarker detection device

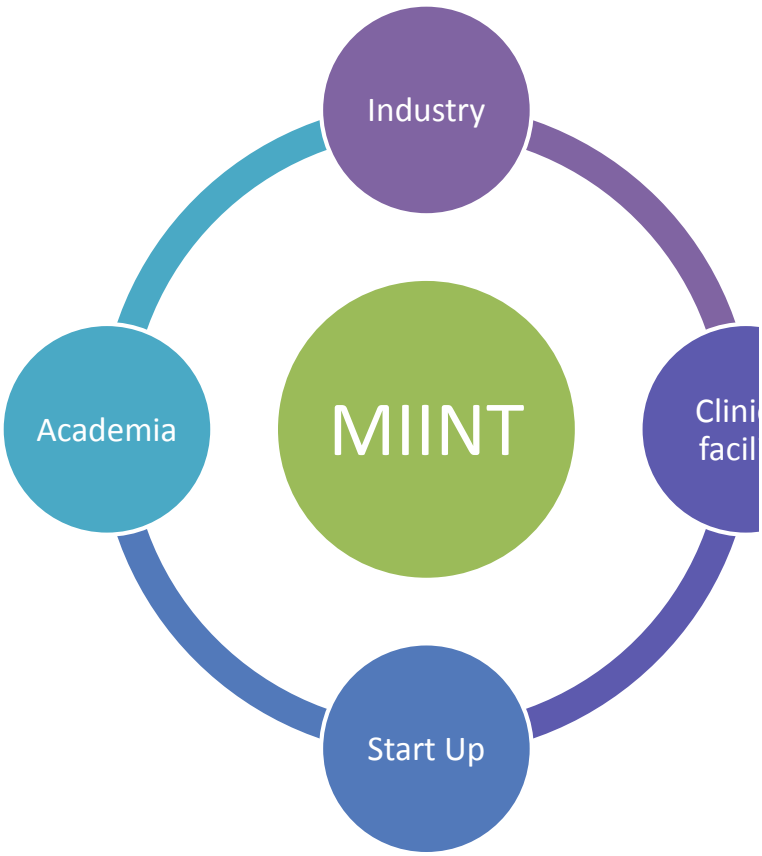


MIINT

MCC Innovation and Incubation Nest (MIINT)

MCC- Postgraduate institute of Oncology Sciences & Research

MIINT



MIINT-Facilities

Space

Mentorships

Lab facilities

Clinical Association

Others

MIINT-Facilities Space

Space

200 sq Feet office area

Chair Space

Virtual space

MIINT-Facilities-Mentorship

Mentorship

MCC faculties from different stream as per requirement

How it will be helpful

MIINT-Facilities-Lab facilities

Lab facilities

All the facilities available at MCC can be used based on the charges

1. Cell culture facility
2. Genetics research facility
3. Molecular biology research facility
4. Microbiology Division
5. Biochemistry Division
6. Radiation Physics Research

MIINT-Facilities-Clinical Association

Clinical Association

Surgical Oncology
Radiation Oncology
Clinical Hematology and Medical Oncology
Clinical Laboratory Services and Translational Research
Cancer Palliative Medicine
Onco Anesthesiology
Imageology
Cancer Registry and Epidemiology
Respiratory Medicine and Critical care
Community Oncology
Clinical Nutrition and Dietetics
Dentistry and Rehabilitation

MIINT-Facilities-Others

Others

- GCP
- IPR
- IRB
- IEC

MIINT-Selection

Application

MIINT Office

Presentation – expert committee

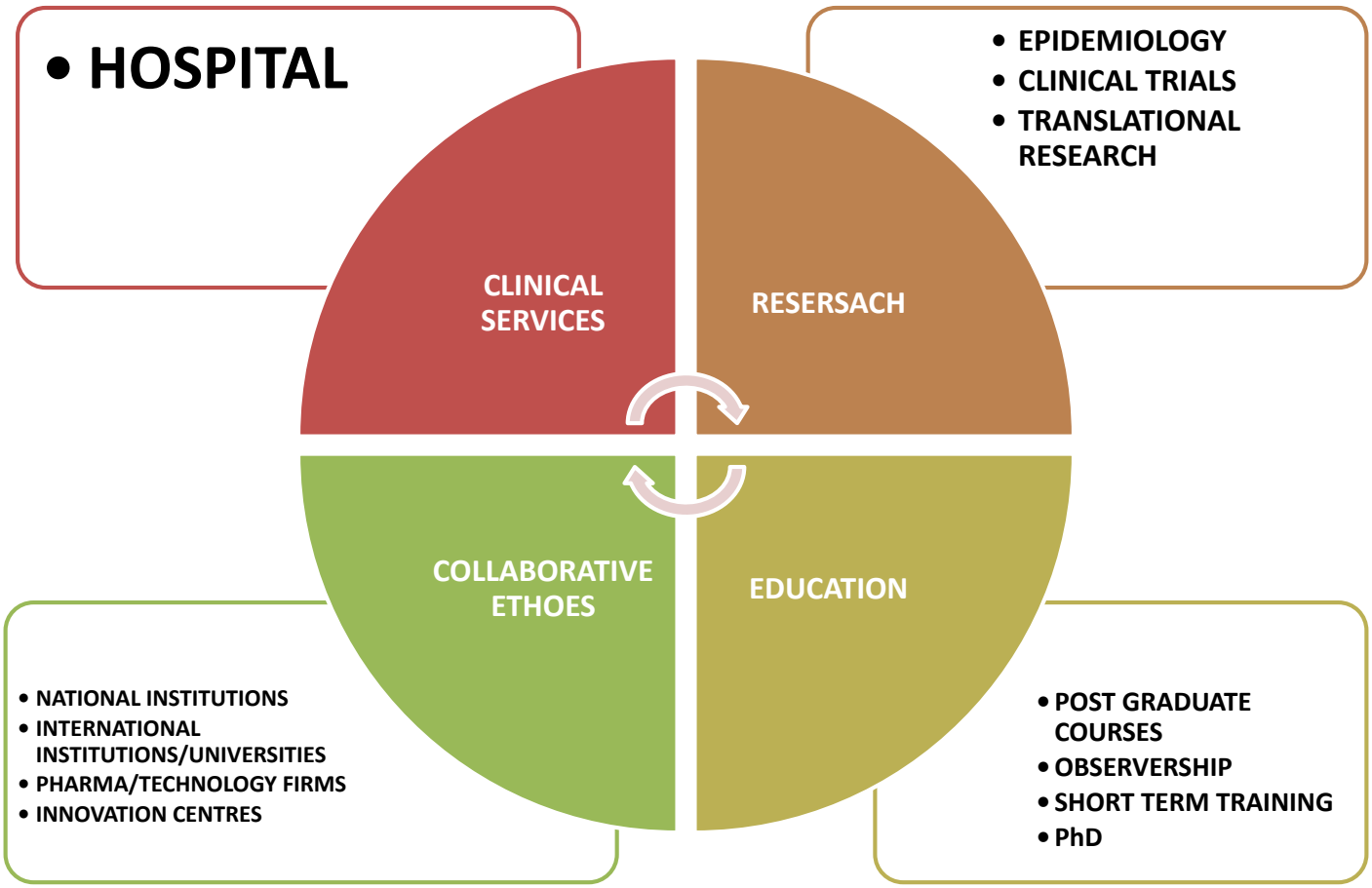
Based on comments modification / selection

MoU between the MIINT and incubate

Evaluation every 6 months

Why MIINT

?



Incubation facility at MCC

MIINT

MCC **I**ncubation and **I**nnovation **N**es**T**

Thank You

5.3.6. SESSION BY KERALA MEDICAL TECHNOLOGY CONSORTIUM (KMTC): UPDATES

Unlocking the Potential of Kerala's MedTech Ecosystem

KERALA MEDICAL TECHNOLOGY CONSORTIUM (KMTC)

8TH STAKEHOLDERS CONNECT MEET // 19TH JANUARY 2024
DR MOOPEN'S MEDICAL COLLEGE // WAYANAD

KERALA MEDICAL TECHNOLOGY CONSORTIUM (KMTC)

Detailed Project Report developed by Experts, over 150 eminent professionals connected to MedTech interviewed and consulted

Medical Technology / Medical Devices sector identified as a SUNRISE sector by Govt of Kerala (GoK) - aligned to building the Kerala Knowledge Economy

GoK initiates Kerala Medical Technology Consortium (KMTC) as a flagship project in June 2022, with specific objectives, to channel efforts towards bringing together all stakeholders in the ecosystem and to develop the ecosystem further in a "Beyond Cluster" model.

KMTC // THE VISION & THE MISSION

VISION

To Establish Kerala as the TOP Medical Technology / Medical Devices Hub in the country by 2032, and to aspire to be counted in the Top 20 MedTech Ecosystems in the World

MISSION

To Catalyse and Accelerate the research, innovation, development in and manufacturing of Medical Devices and Medical Technology by bringing together all stakeholders - Research Institutions, Academia, Industry, Healthcare Providers, Policymakers and Government - into a vibrant, interactive and inclusive ecosystem

KMTC // STRATEGY & IMPLEMENTATION

- Local Ecosystem Assessment
  Analyzing Kerala's MedTech Ecosystem to inform KMTC's approaches.
- International Benchmarks:
  Drawing insights from global MedTech clusters like Minnesota (US) and Galway (Ireland).
- KMTC's implementation strategy spearheaded by a high-level expert team, led by a Special Officer and the KMTC Coordination Committee, chaired by the Chief Principal Secretary to the Chief Minister.
- Core functionaries from the Dept of Industries, Health & Family Welfare, KSIDC, KSUM, and K-DISC collaborate to execute the strategies.

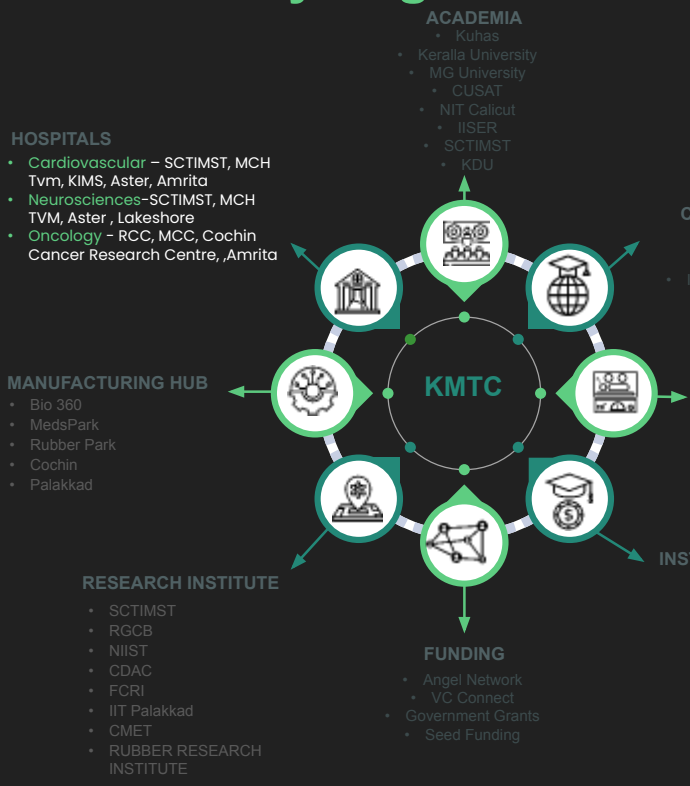
KMTC // EXTENSIVE MARKETING

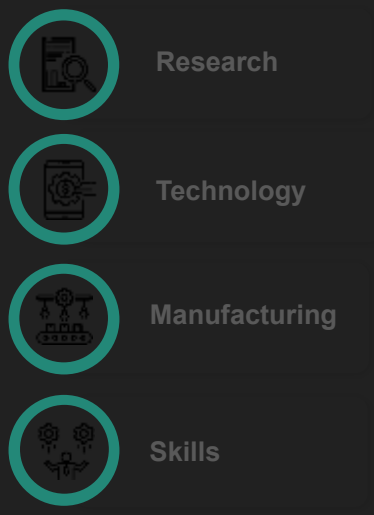
- **Rebranding Campaign**: Using data and testimonials to position Kerala as a premier destination for MedTech R&D and manufacturing.
- **Investor Outreach**: Promoting the Kerala MedTech Ecosystem through exhibitions, roadshows, webinars, and meetings.
- **Global & National Partnerships**: Establishing collaborations to boost investment and R&D.
- **Digital Marketing**: Utilizing social media, SEO, and online platforms to share Kerala's evolving MedTech narrative.

KMTC // ENHANCING STAKEHOLDER INTERACTIONS AND COLLABORATIONS

- **Building Interactions in the Ecosystem**:
  Recognizing the presence of specialized institutions and the need for increased collaboration among stakeholders.
- **Leveraging Local Assets**:
  Utilizing institutions like SCTIMST more effectively for development, testing, and validation of biomedical devices.
- **Facilitating Networking and Partnerships**:
  - Networking Events: Organizing Stakeholder Connect Meets, Workshops, and Conferences to unite researchers, industry leaders, and policymakers.
- **Cross-Sector Collaborations**: Offering incentives for joint research projects among research institutions, hospitals, universities, and industry.

KMTC : Catalysing the MedTech Ecosystem





Source: KMTC DPR

KMTC // PARTNERING FOR SUCCESS

3 MAJOR GLOBAL INDUSTRY EVENTS
- MEDICA '22 & '23 (GERMANY)
- ARABHEALTH '23 (UAE)

6 R&D / Industry Research Collaborations / Projects being facilitated

5 Foreign State EDOs / Trade / Investment Agencies

15+ MedTech Startups supported / mentored

15+ Kerala MedTech Companies Visited by Team KMTC

20+ Local & National Industry Meets and Events Attended

35+ Meetings / Discussions / Visits (SCTIMST, IAV, Bio260 etc)

KMTC // PROMOTING MEDTECH INVESTMENT IN KERALA

₹114Cr

2 x Projects Underway

₹335Cr

3 x Projects in the Pipeline (6 mos)

₹687Cr

50 x Prospects / Projects

KMTC // PARTNERING FOR SUCCESS

Supporting Startups:

KSUM, TIMed SCTIMST, Social Alpha, Maker Village, NIT-C, AIC-BIMTECH

8

MoUs

Promoting Translational Research & Innovation: SCTIMST, KSHEC, KUHS, KVASU

Empowering Medical Professionals to Innovate and Start-up: KSUM, IMA

Promoting Natural Rubber-based Medical Devices:

KRL, MGU, SCTIMST

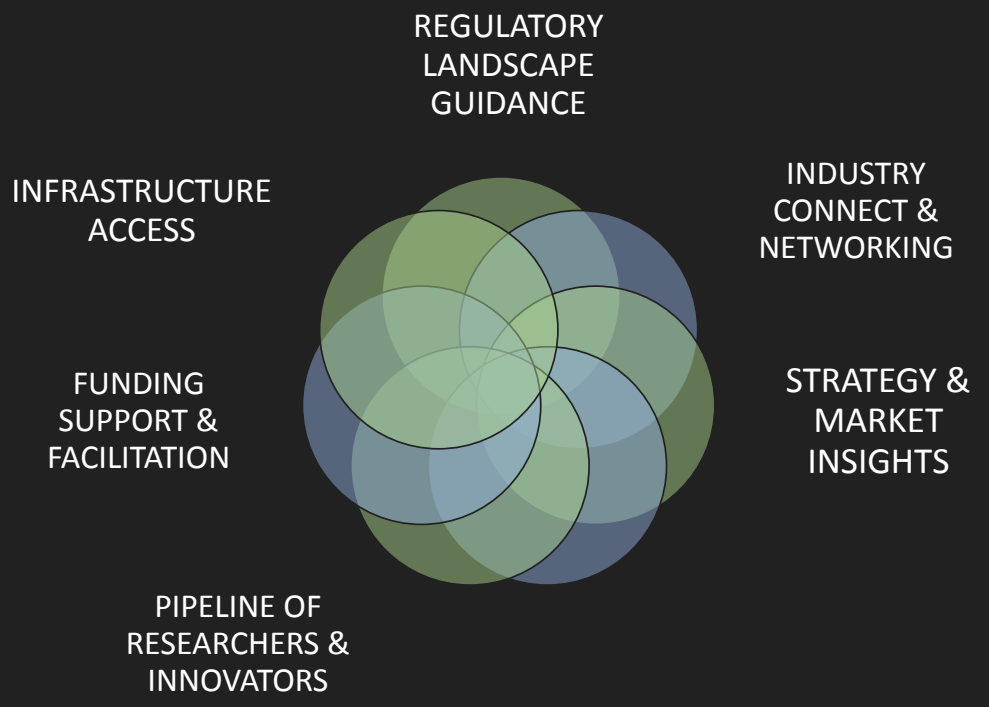
KMTC // STAKEHOLDERS CONNECT MEETS

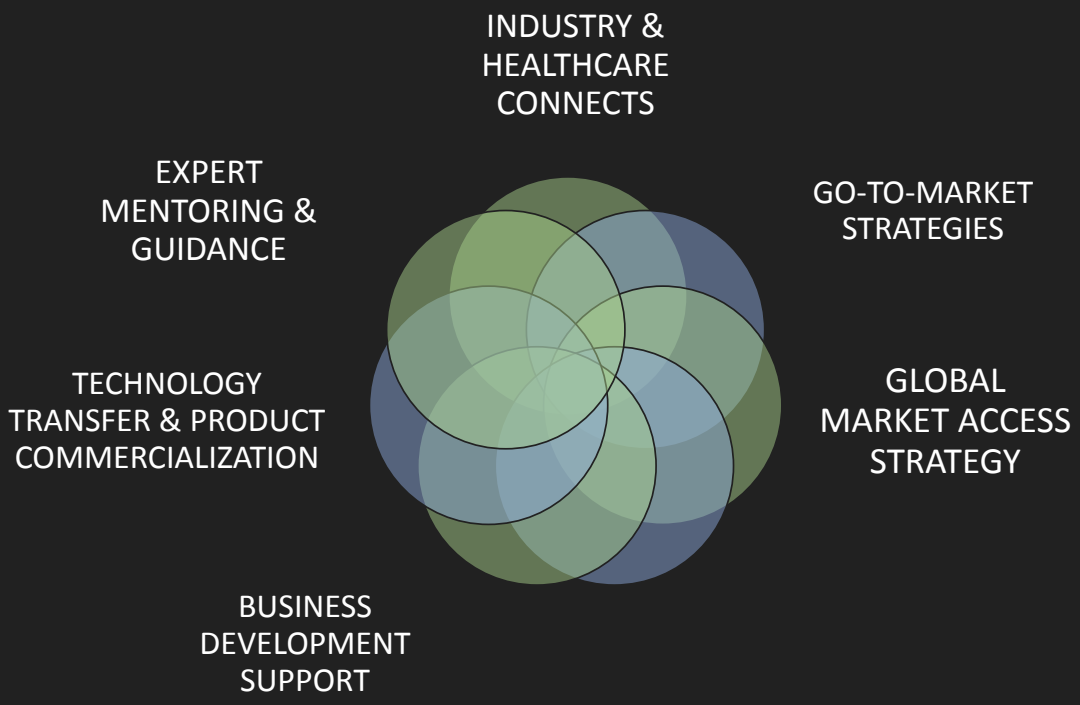
7 Meets // 5 Districts
75+ Experts / Speakers / Panellists
500+ Participants

CLIF, University of Kerala, Trivandrum | MCC, Thalassery, | CUSAT, Kochi
NIT-C, Kozhikode | KUHS, Thrissur | KVASU, Thrissur | DMWIMS, Wayanad

MedTeh Research & Innovations in Kerala | Technology Transfer & Commercialization
Translational Research \ Clinical Trials
Animal Studies / Preclinical Trials \ Accelerators & Incubators

International Conferences & Workshops (SCTIMST & KSHEC)





KMTC KERALA MEDICAL TECHNOLOGY CONSORTIUM

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WWW.KMTC.IN

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