Extensive Two-Day Workshop on Medical Devices and Polymeric Biomaterials

Venue: Biomedical Technology Wing, SCTIMST, Satelmond Palace Campus, Poojappura, Trivandrum

March 12 & 13, 2026.

Organised By:

Industry Institute Partnership Cell, Biomedical Technology Wing, SCTIMST Trivandrum

Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST) Trivandrum

In Association With

Society of Plastic Engineers (SPE) INDIA, MEDICAL PLASTICS DIVISION, Mumbai

Supported By

Indian Medical Device Industry IMDI Conferences www.imdiconferences.com

www.medicalplasticsindia.com MEDICAL PLASTICS DATA SERVICE A Techno-Economic News Magazine For Medical Plastics, Medical Devices, Diagnostics And Pharma Industry

AIMED Association of Indian Medical Device Industry (AIMED)

KMTC Kerala Medical Technology Consortium

IPI Indian Plastics Institute

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A two-day Workshop on **Medical Device Development** has been conducted during **12–13 March 2026** at the **Biomedical Technology Wing, Poojappura,** organized by the Industry-Institute Partnership Cell (IIPC) of the Biomedical Technology Wing, Sree Chitra Tirunal Institute for Medical Sciences and Technology, SCTIMST, Trivandrum. This event was co-organised by Society of Plastic Engineers (SPE), India. The prime sponsor was M/s.Freudenberg Medical.

The objective of the workshop is to provide participants a comprehensive understanding of the stages involved in the development, testing, evaluation, and regulatory aspects of medical devices. The workshop brought together experts dealing with different aspects of device development. The speakers shared their knowledge on biomaterials, safety evaluation, clinical studies, and emerging trends in medical technology. The series of lectures spread in 2 days covered the entire lifecycle of a medical device, from concept to commercialization, mainly related to regulatory and safety (medical device classification, ISO 10993 biological safety, risk assessment, and clinical evaluation), technical analysis (materials characterization, biocompatibility, and various testing methods in the aspects of chemical, thermal, mechanical, and morphological) and product development modalities (product release studies, pre-clinical efficacy, and emerging innovations). A total of 25 participants enrolled in this program, from academia as well as from industry, spread across various parts of the country.

On Day 1, 12th March 2026, the program began with an introductory and welcome address by the co-ordinator and felicitation session from 9:15 am to 10:00 am. Dr.H.K.Varma, Head, BMT Wing, SCTIMST and Shri.D.L.Pandya, Vice President, SPE India Medical Plastics Division, gave felicitation speeches on behalf of the organisors. Mr.Falgun Jani from Freudenberg Medical, delivered a short presentation on the activities of the Company.

The first session, conducted by Ms. Amrutha C., focused on Biomaterials and Medical Devices. She explained the definition and classification of medical devices and discussed how biomaterials are selected based on their intended medical applications and regulatory classifications.

The second session was delivered by Dr. Anil Kumar P.R. on the Principles of Biocompatibility. He explained the fundamental concepts of biocompatibility and risk management, highlighting how materials must be tested to ensure that they do not cause harmful biological responses when used in the human body.

In the afternoon, Dr. Remya N.S. conducted a session on Laboratory Testing for Biological Safety. She discussed the importance of toxicological profiling and explained how biological safety assessments are performed according to ISO 10993 standards. This session emphasized the need for thorough biological evaluation before medical devices are approved for clinical use.

The next session was handled by Dr. Roy Joseph, who spoke about Material Characterization. He described physico-chemical characterization tests and chemical risk assessment methods used to analyze the composition, stability, and safety of biomaterials.

The final session of the first day was delivered by Dr. A. Maya Nandkumar on Product Release Studies. She explained the processes involved in sterilization, cleanliness testing, and packaging of medical devices before they are released to the market. These procedures are essential to maintain product safety and prevent contamination. The day concluded with laboratory visits, giving participants further exposure to practical biomedical testing techniques.

On Day 2, 13th March 2026 the sessions focused more on pre-clinical and clinical evaluation of medical devices. The first session was conducted by Dr. A. Sabareeswaran, who discussed Implantation Tests for Biological Safety. He explained how implantation studies and histopathological analysis are used to evaluate tissue responses to implanted medical materials. The following session was led by Dr. Renjith S., who spoke about Material Properties Evaluation. He explained various thermal, mechanical, and morphological tests that help determine the structural integrity and performance of biomaterials used in medical devices.

Dr. Sachin Shenoy delivered a session on Pre-Clinical Efficacy Evaluation. He discussed the use of animal models and different experimental methods used to evaluate the safety and effectiveness of medical devices before they proceed to human clinical trials. Participants were again given the opportunity to visit the laboratories to observe testing facilities and equipment used for biomedical research.

In the afternoon session, Dr. Vivek Pillai discussed Clinical Evaluation and Documentation. He explained the importance of clinical evidence, regulatory documentation, and post-market surveillance in ensuring that medical devices remain safe and effective after they are introduced into the market. The final session was conducted by Dr. Manoj Komath, who spoke about Emerging Trends and Innovations in MedTech. He highlighted recent advancements in medical device technology and discussed future opportunities and challenges in the field.

The workshop concluded with a feedback session and closing remarks. Overall, the workshop provided valuable insights into the entire process of medical device development, from material selection and laboratory testing to clinical evaluation and regulatory approval. The combination of expert lectures and laboratory visits made the program highly informative and beneficial for participants interested in biomedical research and medical device innovation.