



श्री चित्रा तिरुनाल आयुर्विज्ञान और प्रौद्योगिकी संस्थान, त्रिवेन्द्रम
SREE CHITRA TIRUNAL INSTITUTE FOR MEDICAL SCIENCES AND TECHNOLOGY, TRIVANDRUM
THIRUVANANTHAPURAM - 695 011, KERALA, INDIA
(एक राष्ट्रीय महत्व का संस्थान, विज्ञान और प्रौद्योगिकी विभाग, भारत सरकार)
(An Institution of National Importance, Department of Science and Technology, Government of India)
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R&P Cell/SCTIMST/2025

15.12.2025

TIME BOUND / समयबद्ध
PARLIAMENT QUESTION / संसदीय प्रश्न

Sub: Lok Sabha Question Diary No. U10238, due for reply on 17/12/2025 on Quality of Research Infrastructure and Capacity Building in Scientific Institutions - reg.

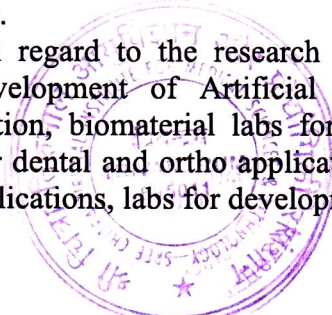
- The efforts made to improve the quality of research infrastructure and capacity building in scientific institutions to support innovation nationwide;
- The support provided for initiatives like the PM Research Fellowship and Deep-Tech Fund of Funds to encourage advanced research and entrepreneurship in frontier technologies;
- The Government's approach to creating public-private innovation hubs that promote shared resources and accelerate commercialization; and
- The strategies to increase awareness and participation in science and technology among young people in smaller cities and rural areas?

Answer

Point-wise inputs submitted by **Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST), Trivandrum, Kerala - 695 011, (An Institution of National Importance, Department of Science and Technology, Govt. of India)**

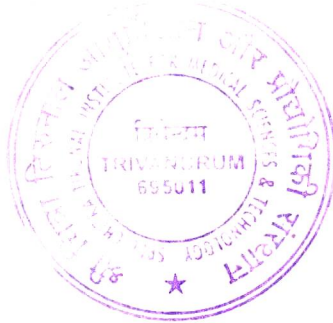
- Sree Chitra Tirunal Institute for Medical Sciences (SCTIMST) has been instrumental in development of medical devices and biomaterials, testing of medical devices to the medical device industry and academia, delivering academic programs like PhD, M Tech and carrying applied research in various arenas of Biomedical Technology. The Institute has developed and commercialized many medical devices like artificial heart valve, blood bag, membrane oxygenator, hydrocephalus shunt, haem concentrator, concentric needle electrode, dental composites, bioactive ceramic composites for dental and orthopaedic applications, Intrauterine Device etc. During the covid pandemic many products like emergency breathing assist device, swab and Viral Transport Medium, medicab for emergency situations, uv disinfection bin, multiplex covid detection kit, RNA isolation kit etc were also commercialized. The Institute has around 80 Technology Transfers for biomedical devices and biomaterials, another 30 Technology Transfer for covid products, commercialized 19 products in the biomedical devices / biomaterials and 11 products during the covid times. Institute has 250 granted Indian patents, 29 granted foreign patents and 89 design registrations.

With regard to the research infrastructure the Institute has engineering labs for product development of Artificial Internal Organs, Extracorporeal Devices, Medical Instrumentation, biomaterial labs for development of biomaterials including Bioceramic Products for dental and ortho applications, development of polymeric materials for various medical applications, labs for development of biological products based on tissue, blood etc.



The Institute also has the necessary infrastructure for testing of the medical devices comprising of toxicology, tissue culture, thrombosis unit, microbiology, histopathology, central analytical facility etc. There is a calibration facility available for calibration of equipments. The Institute also has animal facility (both small and large animal facility) for in vivo evaluation of medical devices and biomaterials. This includes an operation theatre and digital mobile cathlab also. The Institute has a Precision Fabrication Facility to support prototype development of medical devices developed in the Institute. The facility includes sophisticated CNC machines. There is a 3D bioprinting facility.

- (b) Nil
- (c) SCTIMST has an incubation facility SCTIMST – TIMed which supports the startup and entrepreneurs who are into the development of medical devices. The incubation facility has been providing space to the incubates and various shared resources like equipments, wet lab facility and work stations. TIMed also has a prototyping and clean room facility available for use of the incubates. TIMed also provides funding to selected ideas through the Nidhi Prayas scheme.
- (d) SCTIMST entertains visit of students from schools, colleges and research institutions to create awareness on the science and technology initiatives of the Institute. Nearly 3000 students visit the Institute every year on an average. Training programs are conducted under the Industry Institute Partnership Cell for the students in various topics related to medical device development and research in general. Outreach programs are conducted in different colleges and schools where the faculty give oral presentations. Open day is conducted every year in the Institute wherein the youngsters are given an opportunity to visit the facilities, demonstrations are done on the equipment, interactions with the faculty and staff are carried out trying to promote an awareness into science and technology. Apart from these the Institute participate in many numbers of exhibitions across India every year propagating the spirit of science and technology.




निदेशक / Director

15-12-14