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R&P Cell/SCTIMST/2026 **29.01.2026**

समयबद्ध- संसदीयप्रश्न / TIME BOUND - PARLIAMENT QUESTION

Sub: Rajya Sabha Provisionally Admitted Starred Parliament Question Diary No. S368 regarding "Implementation of the National Science, Technology and Innovation Policy-2020" - reg.

(a) The number of national laboratories and research institutes in the country, and the extent to which the commercialization of their innovations has been successful;

(b) The results of the efforts made and international collaborations undertaken to improve the global scientific standing; and

(c) The future strategy for encouraging indigenous technological development and innovation for a self-reliant India?

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)***

(a)&(b) Biomedical Technology Wing of Sree Chitra Tirunal Institute for Medical Sciences & Technology is into development of medical devices and biomaterials for more than four decades now. The Institute believes on the principle that the technology development is not complete unless it reaches the patient population and takes all efforts to bring the product to market through the process of Technology Transfer by handholding with the industries. The Institute has developed and commercialized many medical devices like artificial heart valve, blood bag, membrane oxygenator, hydrocephalus shunt, haemoconcentrator, concentric needle electrode, dental composites, bioactive ceramic composites for dental and orthopaedic applications, Intrauterine Device, vein viewer, cholecyst derived wound dressing, TB diagnostic kit, 3D bioink 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 and another 30 Technology Transfer for covid products. The Institute has 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. The recent Technology Transfers include many high risk devices like Left Ventricular Assist Device, flow diverter stent, occlusion device, liquid embolization agent, bioprosthetic heart valve, TiN coated stents, bioactive ceramic beads for osteomyelitis, and many other devices like UTI diagnostic kit, pneumatic compression device, baby warmers, blood flowmeter, contrast injector etc.

(c) The Institute considers that academia-industry collaboration is the strongest strategy for translation of medical devices. When academia contributes towards structured regulatory based R&D with novelty, the industry contributes in translating the product with well-defined industrial design, manufacturing and marketing efforts. The medical device industry also need to be strengthened in terms of facilities and infrastructure that are required for manufacturing of medical devices like clean rooms, specialized manufacturing technologies, additive manufacturing, CNC machining, molding, micro manufacturing, laser processing etc. It would be ideal if Common Facility Centres are developed to take care of these manufacturing requirements.

29/1/26

निदेशक / Director