

**GOVERNMENT OF INDIA
MINISTRY OF CHEMICALS AND FERTILIZERS
DEPARTMENT OF PHARMACEUTICALS**

LOK SABHA
UNSTARRED QUESTION No. 1170
TO BE ANSWERED ON THE 09th FEBRUARY, 2020

Indigenous Devices for Treatment of Heart Problems

†1170. **SHRI SUBRAT PATHAK:**

SHRI NAYAB SINGH:

SHRI RAVI KISHAN:

DR. RAM SHANKAR KATHERIA:

Will the Minister of **CHEMICALS AND FERTILIZERS** be pleased to state:

- (a) whether the Government has taken any steps to develop Indigenous Medical Devices for correcting ballooning of Brain Arteries and treatment of hole in the heart;
- (b) if so, the details thereof; and
- (c) the details of the Laboratories where the work of developing the said indigenous Medical Devices is going on?

ANSWER

MINISTER IN THE MINISTRY OF CHEMICALS & FERTILIZERS

(SHRI D. V. SADANANDA GOWDA)

(a) & (b): Yes Sir, Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST), an Institute of National Importance under Department of Science & Technology(DST), Govt. of India, has developed an indigenous Flow Diverter Stent for correcting brain aneurysms and Atrial Septal Defect (ASD) Occluder for closure of Atrial Septal Defect (ASD), a hole in the heart, in collaboration with National Aerospace Laboratories, Bangalore (CSIR-NAL) using superelastic NiTiNOL alloys. The technology transfer agreement has been signed between SCTIMST and M/s Biorad Medisys Pvt Ltd, Pune on 14th January 2021. The ASD Occluder's novel release mechanism is protected through two Indian patent applications and one international patent application and design registration. The Flow Diverter Stent possesses kink resistance and improved radial strength through a novel braiding pattern making the device flexible and adaptable to the distortion of the vessel boundaries. The unique features of this device are also protected through two Indian patent applications and one international patent application and design registration. It is funded by the Department of Science & Technology, Govt. of India under the Technical Research Centre (TRC) scheme.

(c): The work is being carried out at the Division of Artificial Internal Organs, Biomedical Technology Wing at SCTIMST, Trivandrum and the Material Science Division of CSIR-NAL, Bengaluru.
