ADDRESS BY THE HON'BLE PRESIDENT OF INDIA SMT. DROUPADI MURMU ON THE OCCASION OF LAUNCH OF INDIA'S FIRST HOME-GROWN GENE THERAPY FOR CANCER, ORGANISED BY IIT BOMBAY

Mumbai: April 4, 2024

Namaskar!

I am indeed glad to be here among you today because the occasion is truly historic. The launch ceremony of India's first gene therapy is a major breakthrough in our battle against cancer. As this line of treatment, named "CAR-T cell therapy", is accessible and affordable, it provides a new hope for the whole of humankind. I am sure it will be successful in giving new lives to countless patients. Everyone associated with this humanistic initiative deserves congratulations.

CAR-T cell therapy or chimeric antigen receptor T-cell therapy is a form of immunotherapy and gene therapy. It requires complex genetic engineering to modify the patient immune cells, especially T cells, and make them fight cancer.

CAR-T cell therapy is considered to be one of the most phenomenal advances in medical science. It has been available in the developed nations for some time, but it is extremely costly, and beyond the reach of most patients around the world. What is new about the therapy being launched today, as I understand it, is that it costs 90 percent less than what is available elsewhere. I am told that this is the world's most affordable CAR-T cell therapy. Moreover, it is also an example of the 'Make in India' initiative; a shining example of the 'Atmanirbhar Bharat'.

The development of this therapy in India over the past decade and its approval in October 2023 speaks volumes about the skills of Indian scientists and physicians.

India's first CAR-T cell therapy is developed through collaboration between the Indian Institute of Technology, Bombay and Tata Memorial Hospital in association with industry partner ImmunoACT. So, we have two of India's pioneering research institutes in their respective fields, joining hands with industry for a humanitarian cause. This is a praiseworthy example of academia-industry partnership, which should inspire many more similar efforts.

I am told that ImmunoACT is a start-up of two students, Alka Dwivedi and Atharva Karulkar, and Professor Rahul Purwar of IIT Bombay. Their vision and the hard work they put in to actualise that vision are commendable.

Ladies and Gentlemen,

Since the beginning of the civilisation, we have made unbelievable progress in various walks of life. In the recent centuries, science has helped us treat a variety of diseases. There used to be many lifethreatening ailments that have been wiped out and forgotten now. Cancer, however, remains one of those complications that remind us of our limits.

It has claimed a large number of lives around the world. In India, 14.6 lakh people succumbed to it in 2022, and the number is likely to rise to 15.7 lakh by 2025. We can only imagine the pain and sufferings of so many patients and their families.

Yet, there is no room for pessimism. How can there be, when we have succeeded against so many diseases? Inspired by the history of so many successful battles, scientists are battling on. With early diagnosis and timely intervention, more and more people have been cured. Their success, in turn, motivates others in creating a positive mindset. It is through such slow but incremental steps that we will overcome the demon of cancer.

The therapy being launched today is, of course, a major step – in fact, a new milestone in the journey of healthcare innovation in India. It

puts us on the global map of advanced medical care as well as on the elite list of countries, which have access to this most innovative technology platform. I gather it has already received high praise from experts abroad.

What we have before us is also an inspiring example of making academic research practical and viable. I am told this therapy will be available across the country in major cancer hospitals, providing new hope to patients and their families. Moreover, this affordable treatment can be made available to all patients across the world. That will be in tune with our vision of "Vasudhaiva Kutumbakam".

Ladies and Gentlemen,

The Indian Institutes of Technology together form a glorious chapter in the saga of modern India. IIT Bombay, in particular, has been the pride of our education as well as technology sectors. In the National Institutional Ranking Framework 2023, this institute was placed fourth overall and third in engineering. The reputation of its faculty and the calibre of its students are outstanding. It was accorded the status of an 'Institution of Eminence' by the government.

When I learned about the new therapy being launched today, I was pleasantly surprised, because IIT Bombay is renowned, not only in India but across the world, as a model of technology education. Here, in this case, technology is not only being put in the service of humanity, but partnerships have been with an eminent institution from another field as well as with industry.

This has been made possible by the focus IIT, Bombay has placed on research and development over the last three decades. IIT Bombay has been setting up several centres of excellence and technology incubators. Investing funds received from the government as an Institute of Eminence, it has established cutting-edge research and development facilities. As a result, IIT Bombay has earned a significant number of intellectual property rights too. Its key research areas include artificial intelligence, machine learning and Industry 4.0 technologies, among others. These are the advances that are shaping our tomorrow. The pace of change is rapid, and often the challenges it poses before the society are daunting. But with the knowledge base and skills of the faculty and students of IIT Bombay and other similar institutions, I am sure India as a whole will benefit greatly from the technological revolution underway.

Ladies and Gentlemen,

Let me conclude by once again congratulating the individuals directly responsible for the new therapy being launched today, as well as the institutions and people associated with them. Your visionary intervention is going to save precious lives and make so many families smile again. Your initiative will inspire others and will go a long way in realising the wish expressed in our well-known prayer:

> सर्वे भवन्तु सुखिनः । सर्वे सन्तु निरामयाः । सर्वे भद्राणि पश्यन्तु । मा कश्चित् दुःख भाग्भवेत् ॥

> > Thank you.

Jai Hind!

Jai Bharat!