63rd ANNUAL CONVOCATION CEREMONY

Tuesday, 15 December 2020

CONVOCATION ADDRESS

by

Dr. Shekhar C. Mande Director General, Council of Scientific & Industrial Research (CSIR), New Delhi



Sardar Patel University University Road Vallabh Vidyanagar - 388 120 Gujarat

University Press

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Chief Guest Dr. Shekhar C. Mande Director General Council of Scientific & Industrial Research (CSIR) New Delhi

Hon'ble Governor of Gujarat, Shri Acharya Devvrat, Hon'ble Vice Chancellor, Sardar Patel University, Prof. Shirish Kulkarni, Hon'ble Members of the Academic Council, Management Council, Senate, Deans of Faculties, learned faculty members, proud parents, friends, and the august Class of 2019.

Thank you everyone for the generous invitation to the 63rd Annual Convocation of the Sardar Patel University, Vallabh Vidyanagar, Gujarat. It is a pleasure and privilege for me to be here at one of the early residential rural universities of the country, created to serve the country through rural regeneration, at the inspiration of the Iron Man of India, Sardar Vallabhbhai Patel. Today is also the death anniversary of SardarVallabhbhai Patel and we all pay our respects to his memories. This university is a living monument to the great Sardar in his own native place. I am proud to mention here that this is the first and only university of Gujarat to be recognized as a Center of Excellence in applied polymers, a status conferred upon only 17 universities of the country by the UGC. It provides all the comforts and amenities of urban life with a typical environment of a rural countryside.

For the graduating students, today is a special moment. It is the result of years of hard work and dedication on your part, and on the part of your teachers as well as your family members. The years when you plowed through different problem sets, spent many sleepless nights browsing through notebooks, spent anxious days awaiting your examination results have gone by and today you are the graduates of one of the premier Universities of India. Today, no one can be more proud of your achievements than yourselves.

You are about to embark on the next chapter of your lives. Your job now, as you embark on this next chapter, is to pause and think about what's important to you, not what is important to your parents or your friends or your teachers or your facebook/twitter/Instagram followers. But think about what's important to you in your gut and in your heart. And if that scares you, that's good, and if people say you're crazy, that's even better. Feel what your passion is. What excites you when you think about it? Pursue that feeling. Because if you are pursuing something that you are not passionate about, you simply may not have the will to succeed. Now onward try taking your own decisions. However, I will urge you not to make the cardinal mistake of thinking that success is also your very own. Always remember to acknowledge the contribution of your team members and be positive in your interactions with them.

The future of the world awaits your contributions, and that is a very exciting thought at the same time placing responsibilities on the shoulders of each of you. I am certain that there are future leaders of Indian society in all spheres in this gathering today, and I do look forward to your progress in the coming years.

As a Scientist myself, I cannot but help in making a few comments on the scientific outlook towards the world that you would help develop further. Science teaches us many things- the foremost among them- equality in the society on all fronts- gender, race, socio economic status, linguistic and geographical boundaries being all immaterial as far as equality is concerned. Science teaches us that we believe in evidence in all aspects of our lives- and that we do not believe in hearsays and in phenomena that have no sound rational basis. Science teaches us that there are gaps in our understanding of the world, but yet these are being addressed by a large group of scientists around the world, whom we trust. Most importantly in my view, Science teaches us that as a dominant species on the planet, we human beings have a very big responsibility to take care of the planet and that we do not use the natural resources indiscriminately. One of the most profound realizations of our lifetime has been the forceful adjustment of Nature and our surroundings to our needs, rather than adjusting ourselves with the Nature. There has thus been a serious confrontation between our species and the environment, which we will need to correct in the coming generations of humanity for our own survival. Developing Scientific outlook therefore will allow the younger generation, beyond the glory of your graduation today, to analyze such aspects critically and take corrective actions whenever necessary.

The arrival of COVID-19 as a pandemic in the early part of the year 2020 threw many challenges at the society which people were not prepared for. The pandemic has created an unprecedented urgency to become self-reliant. India needs to enlarge its manufacturing capabilities, so that dependence on foreign countries can be limited to only a bare minimum of necessities and a crisis originating in a remote land does not leave a major impact on the country's economy. Supply-chain disruptions due to the pandemic and other geo-political reasons have led to a growing concern on our dependence on other countries for critical products and technologies. The Honourable Prime Minister has urged the nation to come together to build a self-reliant India, an "Atmanirbhar Bharat". In response to this call, CSIR wishes to utilize its manpower and research capabilities to its full potential to fulfil this dream of a self-reliant India in the most critical sectors.

I am a proud member of the CSIR family, which can deservedly take many credits for such applications. From developing the indelible ink, to the development of the first tractors for mechanization of agriculture to development of milk powder, to until recently- developing indigenously developed aircraft, and Jet BioFuels, CSIR's contributions to nation development have been immeasurable. During this pandemic situation CSIR worked with various industry partners in a collaborative manner and came up with required products in time. Starting from March when there were hardly any PPEs being manufactured with very few testing centers for COVID-19, today India is able to produce sufficient PPEs and has scaled up its testing significantly. As per ICMR as of 27th October 10,54,87,680 cumulative total samples have been tested. Our efforts have borne fruit and in a short period of less than 6 months, we have been able to not only develop the entire process of synthesis for Remdesivir and Favipiravir and ensure indigenous supply chain of key intermediates but also

developed novel diagnostic tools such as the FELUDA. The need of the hour is to do some out-of-the box thinking while looking for solutions. In fact, a non-invasive ventilator, SwasthVayu was developed by CSIR-NAL, the laboratory working on aerospace technologies.

Hard Lessons or Revelations from the Pandemic for Post COVID-19 World is the need for a Self Reliant India. Three areas need immediate attention and policy interventions

- 1. <u>Pharmaceutical manufacturing base</u> (APIs and Drug Intermediates) of India has shrunk to alarming levels and shifted to China, South-East Asia & CIS counties (<u>Affordable medicines and Jobs</u>)
- 2. <u>Medical devices and diagnostic sector</u>: Almost all the components (reagents, enzymes, antibodies and equipment) are imported threatening the health security in the time of crisis
- 3. Glaring gaps (lab to regulator) in <u>translational</u> <u>expertise / infrastructure</u> for faster repurposing/ development of new therapeutics and vaccines in the extreme emergencies

We have to prepare robust supply chains for all supplies and better resource management, with less dependence on external factors for major resources especially those of strategic importance.

Science and Technology has played a major role in bringing our nation where we are today. Development of scientific outlook, and the connection of Science and Technology with the society are therefore of utmost importance for the development of the nation. To bring further affluence in India comparable to that in the developed economies, I am sure that the young graduates in this audience will take up challenges of the society and with application of Science and Technology we will witness great progress in the coming years.

I understand that the graduating students are anxious about finding suitable employment. In this regard I would like to recall an opinion expressed by the Honorable President of India, Shri Ram Nath Kovind Ji, that the best universities and institutions of learning are not just teaching shops or degree factories. Rather, they are the sources of innovation. "Innovation" is the buzzword of 21st century, innovation and enterprise are the foundation stones of making India a developed economy, and a long-term sustainable technology-led economic growth is possible on this foundation. Innovation and new technology will decide future direction of development.

Finally, I am very happy that I have been able to be with you during this important milestone of your lives. I congratulate all of you on your achievements. Your degree will be with you, but most importantly, the knowledge and the values which you learned so far will keep guiding you wherever destiny will be taking you. Be worthy of yourself, have a good life! Your future is in your hands. Congratulations again!

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