

No more quota for Andhra Pradesh students in Telangana colleges

Hyderabad: Andhra Pradesh students will no longer have quota for admissions to various professional programmes, including engineering in Telangana colleges, from the forthcoming academic year. The Telangana government on Thursday issued orders reserving majority seats in professional programmes for Telangana locals only. As per the GO MS 15 issued by Education department Secretary Dr Yogita Rana, 85 per cent of the seats will be reserved in each course offered by the educational institutions in the State for local candidates of OU area (Telangana region). The remaining 15 per cent of seats will come under unreserved. However, candidates declared as locals of OU area are eligible for unreserved category seats.

Further, candidates who resided in the State for a period of 10 years, excluding period of study outside the State, or either of parents who resided in the State for a period of 10 years, excluding employment periods outside the State, are eligible for unreserved

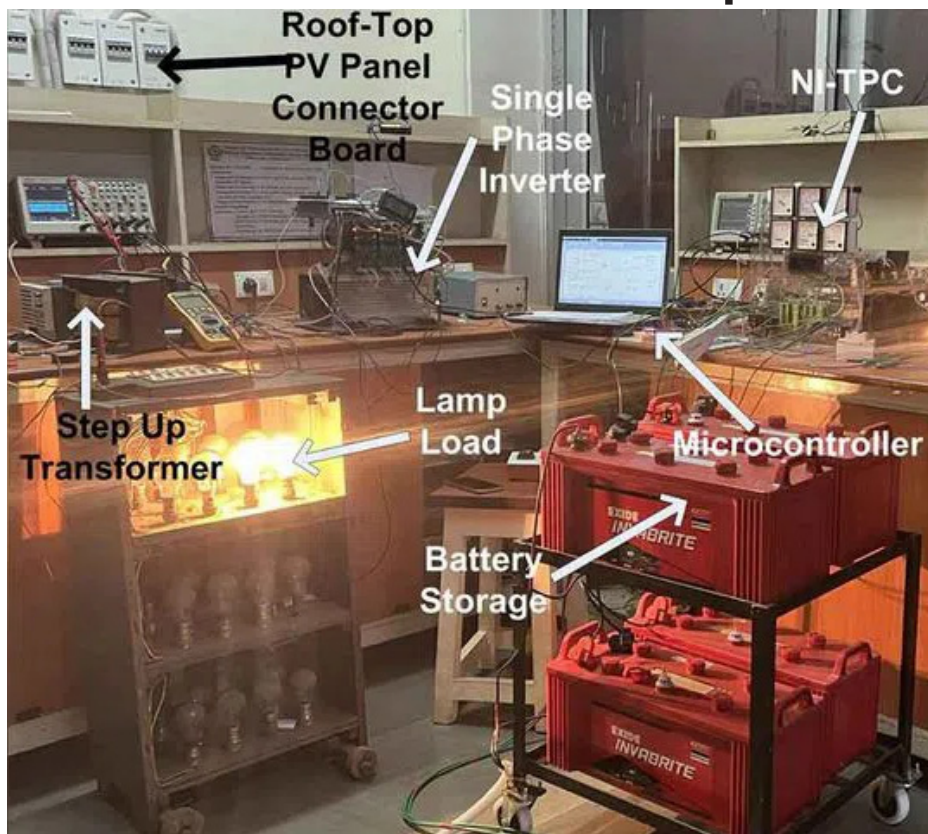
quota seats. As per the order, students who are children of parents who are employed in the State or Central government, public sector corporation, local bodies, universities and other similar quasi public institutions within the State will be eligible for unreserved quota. Also, candidates who are spouses of those employed with the State or Central government, public sector corporations, local bodies, universities and educational institutions recognised by the government and other quasi-government institutions in the State can claim for seats under unreserved quota.

The government has come up with the new rules as the common admissions between Telangana and Andhra Pradesh States for a period 10 years as mandated in the AP Reorganisation Act 2014 concluded this academic year. So far, 85 per cent of the seats in the HEIs in the State are reserved for Osmania University area (Telangana) locals and the remaining i.e., 15 per cent is open for all, allowing students from



Telangana and Andhra Pradesh compete for a seat in the 15 per cent quota. This common admission process norm has been followed by Andhra Pradesh as well.

NIT Rourkela develops clean energy innovation to improve solar energy harvesting



Solar panels produce electricity from sunlight, but the amount of power they generate changes throughout the day due to shifts in temperature and the intensity of sunlight.

Hyderabad: Researchers of National Institute of Technology (NIT) Rourkela have succeeded in innovating a new low-cost technology to extract maximum power from solar panels under changing weather conditions. The developed technology has also been granted a patent, according to a press release issued by the Institute on Thursday. The team of researchers led by Prof. Susovon Samanta of department of Electrical Engineering comprised PhD student Satabdi Bhattacharya, Dual Degree Student Madhusmita Barik.

Solar panels produce electricity from sunlight, but the amount of power they generate changes throughout the day due to shifts in temperature and the intensity of sunlight. To ensure they always produce the most energy possible, solar systems use a technique called Maximum Power Point Tracking (MPPT). This is a smart system that helps solar panels produce the most electricity possible by adjusting voltage and current based on sunlight and temperature changes. It consists of a microcontroller that runs the MPPT algorithm, sensors to measure voltage and current, and a DC-DC converter that regulates power flow. The system continuously monitors the solar panel's output and makes minor adjustments to keep it operating at peak efficiency, ensuring minimal energy waste. Traditional MPPT methods can waste energy and respond slowly when weather conditions change. They also require expensive current sensors, making them less affordable for low-cost solar setups. To overcome these limitations, Prof. Samanta's team developed a

voltage sensor-based MPPT method that eliminates the need for current sensors, reducing system complexity and cost. Their approach uses a simple voltage sensor or a resistor divider circuit to track the Maximum Power Point (MPP) more accurately while maintaining stable and efficient steady-state operation, leading to improved tracking efficiency and better PV energy harvesting.

Speaking about the innovation, Prof. Samanta said, "Our method prevents small power fluctuations that older techniques struggle with, ensuring stable and efficient power extraction. It also responds quickly to changes in sunlight and temperature, allowing the system to consistently operate at peak efficiency. Additionally, by using only a voltage sensor or a simple resistor divider circuit, it reduces system complexity and cost. Its adaptable design enables integration into various solar power setups, making it a versatile solution for a wide range of applications." This innovation has broad applications in the renewable energy sector. Eliminating the need for expensive current sensors, reduces costs and makes it a good fit for affordable and small-scale solar projects. In addition to this, the developed innovation can also be used in Solar-powered IoT devices such as weather sensors and remote communication towers, where maintaining reliable energy output is crucial, affordable consumer solar products like home lighting systems and portable solar chargers, where cost and efficiency are key consideration and microgrid and off-grid energy solutions, providing a stable and reliable power source in remote or rural areas.

What Zeiss India and IISc Bengaluru's AI eye care research lab will work on

In an initiative to leverage Artificial Intelligence (AI) to drive advancements in eyecare solutions, optics and optoelectronics technology company ZEISS India has collaborated with the Indian Institute of Science (IISc), Bengaluru, to start a research lab for AI in eye care on the IISc campus. Part of ZEISS India's CSR initiatives, the lab is expected to enable researchers at IISc to explore the technology's potential in facilitating early diagnosis, treatment personalisation, and accessibility in ophthalmology. As IISc intends to build a medical school and hospital in the coming years, the initiative intends to look at modernising healthcare practices and research and bringing together research and clinical practice. Ashish Modi, Head – Centre of Application Research India (ZEISS India's R&D Division) and Rajesh Sundaresan, Dean of Division (Electrical Electronics, and Computer Sciences Division), IISc, share with The Hindu, the vision and plan for the lab. Ashish Modi: We are an R&D unit of ZEISS India. We are called Center for Application Research in India. We are heavily focused in developing products in the area of ophthalmology. AI is poised to change the way traditional medicine is practiced.

We started working with IISc in 2020 to look at some of the key eye care problems that could be solved with AI. After getting very interesting results, we felt that instead of doing a project-based collaboration, why not do something long term. Thus, we jointly agreed to set up a lab focused on AI for eye care. Rajesh Sundaresan: A few years back, the principal investigator of this particular project, Professor Chandra Sekhar Seelamantula, worked on signal processing for optical coherence tomography (OCT). It is a method used to look at the shape of the retina, and internal structures using infrared optical signals. Now, many autonomous vehicles use this to perform depth mapping. Under a programme by the Government of India called IMPRINT, Prof Seelamantula combined this with artificial intelligence techniques. He took the ideas of optical coherence tomography and combined it with the advanced techniques in artificial intelligence to create data sets for glaucoma, and having experts annotate these data sets so that AI models could be trained on it. Since ZEISS was also interested in such technologies, the two have now come together on AI for eyecare.

More about the lab?

Ashish Modi: We are setting up a high-end IT infrastructure lab for both Master's and Ph.D students. We will be sponsoring these students. As of now, two masters students have enrolled. We are looking for two PhD students. Over the next three years, we are expecting 8 to 10 researchers to be working in the lab. We want to see how this flourishes and more problem statements come up and then we can build on top of that.

Are there specific areas of research that you are interested in?

Rajesh Sundaresan: This particular group is looking at what is called fundus imaging. What that involves, apart from glaucoma, is the potential early screening of another disease called diabetic retinopathy. All of these require imaging the retina. Another possible application in the future is a poten-



Two young girls from Kashmir Sadaf Mushtaq and Simrah Mir, shattered barriers by securing 99+ percentile in JEE Main 2025. Sadaf achieved 99.50 percentile, while Simrah secured 99.39 percentile - a milestone for Kashmiri girls in competitive exams.

tial window into understanding the blood vessel structure in the eye. This can be analyzed to understand some corresponding changes taking place in the brain. So, these are three things that I can think of – glaucoma, diabetic retinopathy, and the things related to early identification of cognitive impairment in those who are aging. These are the important applications for screening. What we would also like to see is large scale screening, and thereby equitable health. If handheld screening, and imaging devices can move to villages where experts are few in number. Currently, it could enable that. Where AI technology can be used to screen images in an automated way and reduce the load on healthcare professionals. The next thing is data. AI tools need data which is high quality gold standard data. For that we need to work with hospitals, standardise and gather this data, annotate it and then train the AI. We are at the first level of creating the gold standard data.

Would the researchers also receive help in identifying markets and productizing?

Ashish Modi: We would provide exposure to researchers in identifying problem statements and market possibilities so that they get some direction in terms of where, if they put their efforts, will be more ROI from a commercialization perspective.

How does all of this fit into the larger IISc research context?

Rajesh Sundaresan: IISc is starting a medical school and hospital. Clinical research is somewhat separated from practice in India. And the COVID-19 experience taught us the benefits of bringing these two together. Intertwining these two is important and the hospital at IISc is one such experi-

ment. IISc is one of the institutions where biological research, technological research and bioengineering take place. So, with the medical school and the hospital, I think the circumstances are great for this. We have to think of healthcare, diagnostics, and delivery of healthcare in a modern way. AI can enable the acceleration of better healthcare today. There is a concerted effort to bring together AI in healthcare with the hospital and the medical school and the technology and science that is there in the Indian Institute of Science. We are building an 'AI in healthcare' collective which is a consortium of several people, hospitals and institutions. One of its activities is AI in eyecare.

Also, the Indian Council of Medical Research and IISc came together to create a database. It's called the Medical Imaging Data Sets Platform or MIDAS. The purpose of this is to work with hospitals, ICMR, and researchers, to understand what their needs are, and then codify that into a set of standards in terms of image gathering, annotations that are needed and so on.

Given health data is very personal, how do you go about ethical concerns regarding these data?

Rajesh Sundaresan: Before we embark on data collection, we have to follow some rigorous standards related to ethical differences. We have to lay out a plan for the processes we follow, how the data will be used, what kind of sharing mechanisms will be employed and so on and then share it with the ethics committee. They have to clear the process by which the data is obtained and used. Only if the participant is willing to share it, we collect the data. We have to ensure that anonymity is protected even after they

give consent. So, we make sure that all the images are de-identified. Once the de-identification has happened and there is sufficient guarantee that you can't remap it to the individual, it is put in another database which is for research purposes. So, there are protocols we follow for this.

What are some of the challenges that you anticipate?

Rajesh Sundaresan: Clean data is one. We are trying to address that through our gold-standard data collection. The other thing is the fast pace at which it is evolving and the resources that are needed to be able to keep pace with the fast transitions in the ecosystem. We would need a significant amount of infrastructure to be able to do the training. Resources in the research space is another challenge. There are a lot of individuals who want to go into applications of AI. But when it comes to healthcare, it is one of those domains where the technology that comes in today was developed 10 years back. So, we would need individual researchers to commit to this long timeframe. Another important challenge is the deployment of AI. Let us say we develop a new OCT device, but an unskilled person in a remote part of the country is being asked to use it for imaging. Will they do it or will they prefer continuing the existing norms?

Will AI be accepted is a question that also we need to understand and think about. Ashish Modi: AI has the potential to make an impact in clinical aspects, but how does it weigh from an economic perspective? I think it's going to be a big challenge as to how we can commercialize it and make it available for everyone. We have to figure out ways to make it financially viable and to commercialize it effectively.

Bank of Baroda Pilots Industry-First “Merchant Loyalty/ Cashback Programme” Merchant Use Case through Programmable CBDC

Hyderabad, 27th February, 2025: Bank of Baroda (Bank), one of India’s leading public sector banks, under the guidance of Reserve Bank of India, today announced the pilot launch of a **new functionality for merchants built on the “Programmability” functionality of Central Bank Digital Currency (CBDC) – the “Merchant Loyalty/ Cashback Programme”** in collaboration with a fintech company. This industry-first initiative enables small and medium merchants to independently design and launch loyalty/ cashback programmes for their customers, usually designed by large brands, using Bank of Baroda’s **“bob Merchant App”**. Merchants such as local retail shops, grocery stores, pharmacies etc that have an account with Bank of Baroda and are registered on the bob Merchant App, can now independently design and run Cashback/Loyalty programmes, without the need to make any corresponding investments in procuring the infrastructure or software to operate such

a reward programme.

This initiative will go a long way in boosting the adoption of CBDC, making it more appealing & rewarding for merchants and customers. It will also help small & medium merchants to stay competitive, encourage repeat business and expand their customer base. Speaking on the launch, **Shri Sanjay V Mudaliar, Executive Director, Bank of Baroda** said, “Bank of Baroda continues to be at the forefront in driving innovation in the banking sector. Our new **“Merchant Loyalty/ Cashback Programme”** using Programmable CBDC (PCBDC), a first in the Indian banking sector, is an innovative use case that empowers our small and medium-sized merchants to create tailored cashback offers that will foster greater customer engagement & retention. This initiative will benefit both merchants and customers.” Key Features of Bank of Baroda’s “Merchant Loyalty/ Cashback Programme” Merchant Use Case through PCBDC Bank’s merchant cus-

tomers will configure their own cashback or loyalty programme using the **“bob Merchant app”**, specifying the period of the campaign, percentage of cashback and validity/ expiry date of the cashback received by customers. During the campaign period, customers (presently for BOB customers only) who make a purchase using the bob World Digital Rupee app, will receive cashback in the form of PCBDC from the merchant as per the prevailing offer at the merchant outlet. These PCBDCs can be used by customers at the specific merchant outlet until expiry. About Bank of Baroda Founded on 20th July, 1908 by Sir Maharaja Sayajirao Gaekwad III, Bank of Baroda is one of the leading commercial banks in India. At 63.97% stake, it is majorly owned by the Government of India. The Bank serves its global customer base of ~165 million through over 70,000 touch points spread across 17 countries in five continents and through its various digital banking platforms, which provide all banking products and services in a

seamless and hassle-free manner. The Bank’s vision matches the aspirations of its diverse clientele base and seeks to instil a sense of trust and security in all their dealings with the Bank.

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How PV Sindhu adds protein in her diet: ‘Just swap serving size of rice with that of dal, paneer, leafy greens or chicken’



Badminton ace PV Sindhu recalls her childhood days when her grandmother would make laddoos packed with nuts whenever she felt her granddaughter wasn’t eating enough. “She just knew when I needed protein and used her traditional logic. She would give it to me as a snack or an anytime eat. Sometimes, these laddoos took care of my odd hunger pangs,” she tells us over a video call, having just associated herself with an awareness campaign to ensure every Indian has enough protein to stay healthy and fat-free. In fact, her food-first approach came on a day she also joined Prime Minister Narendra Modi’s anti-obesity initiative as an ambassador, promising to watch the oil in her samosas and pakoras. As nutritionists talk about a healthy balance of macronutri-

ents (proteins, carbs and fat) and with most Indians relying on a carb-heavy diet, the conversations for protein have picked up speed. Protein builds up lean mass, burns fat, increases metabolism, lends satiety, kills hunger pangs, slows down blood sugar release and helps your body repair itself, all of which helps control weight and keep chronic illnesses like diabetes and heart disease at bay.

Always spread protein across meals Sindhu admits that growing up in a family of athletes (both her parents were volleyball players), she conformed to a good diet. “I started playing very young and those days protein drinks weren’t available the way they are now. So my mom used to make sure that I have some kind of protein in every

meal, let’s say an egg, dal and paneer. That gave me strength and endurance for my long practice sessions,” says the ace shuttler, who now has sound nutrition logic and knows that our bodies can only process about 20 to 40 grams of protein at a time. Given that adults need 0.8 gram of protein per kilo of body weight and athletes need 1.2 to 2 grams, Sindhu is particular about spreading her protein intake across meals.

When she can’t get enough, she goes for whey protein, which contains essential amino acids and can be absorbed by the body readily. “I train in the morning, so have two to three eggs for breakfast. Anybody else can have at least one. Lunch comprises a salad, a good amount of dal, paneer or vegetable curry, primarily green leafy vegetables, a very small portion of rice and curd. My dinner looks almost the same as lunch except I substitute the protein component with chicken,” she says. Proteins are good either as pre- or post workout snack

Muscles need protein in order to increase and maintain muscle mass. Which is why a protein snack is recommended as a pre- or a post-workout snack. And Sindhu, being into power sports, needs more of it. “Sometimes, I cannot get enough protein from food as I might be travelling or be at my workout session. These are times when I rely on my protein powder or my protein drink. Sometimes I sprinkle protein powder on my yogurt as an in-between snack,” says Sindhu, who doesn’t have sugar.

First know how much protein you need Sindhu believes that a personalised protein plan works best. “Every individual has a different body type and structure. So it is very important to find out how much fat and lean mass you have and how much protein you need to develop muscle. That can be found out through a body composition test. Then consult a nutritionist on an eating plan that

suits you. Of course, as a sportsperson, I get tested and do blood work regularly. But a beginner needs to know their lean mass and how protein can be incorporated with other macronutrients,” she says.

What does Sindhu’s plate look like Sindhu has devised a simple way of prioritising proteins in her plate. Imagine a slotted food tray. She simply swaps the slot meant for rice with dal and green leafy vegetables and puts carbs in the smallest slot. “I eat animal protein but those who don’t can simply add more varieties of plant protein while keeping carbs to no more than a quarter of the plate. If still their protein quota is unmet, then they can take whey powder,” says Sindhu. Sometimes, she relies on traditional food logic. “My mother mixes different types of dals with a lot of vegetables. And you can pretty much mix proteins in idli and dosa batters. Any millet batter, like ragi batter, has a good source of plant protein,” she says.

What is the biggest protein myth?

“A lot of people feel they will get bulky if they increase protein intake. Fact is it promotes lean muscle growth which will push out the fat and help you lose weight,” she says. And since most people sign up for the gym these days, she says any workout would require adding proteins to the daily diet for strength. “Otherwise you might just end up exhausted,” she warns. She further dispels the notion that changing a diet will yield immediate results. “Diet is a process, a few days are not enough,” she says. As India’s medal and trophy-winning hope, Sindhu carries the weight of a nation’s expectations and deals with performance pressure. “Pre-tournament, I do a lot of deep breathing exercises, which keep me calm and focussed. I meditate regularly. Post-tournament, I take it easy, rest, refocus and am back in court the next day,” she says.

State Level Bankers' Committee, Telangana 44th Quarterly Review Meeting for December 2024



State Bank of India, LHO, Bank Street, Koti, Hyderabad.: **State Level Bankers' Committee (SLBC), Telangana** has convened its 44th Quarterly Review meeting today i.e., on 28.02.2025, at Hotel Marigold, Hyderabad to review the performance of the Banks in Telangana State, for the quarter ended December 2024. The meeting was attended by:

1. Sri Bhatti Vikramarka Mallu garu, Hon'ble Deputy Chief Minister & Minister for Finance, Planning, Energy, Telangana State
2. Sri Tummala Nageswara Rao garu, Hon'ble Minister for Agriculture, Marketing, Co-operation, and Handlooms & Textiles, Telangana State
3. Sri K Ramakrishna Rao, IAS, Special Chief Secretary (Finance), Govt. of Telangana
4. Sri N Sridhar, IAS, Principal Secretary, Scheduled Castes Development Dept, Govt. of Telangana
5. Sri E Sridhar, IAS, Secretary, BC Welfare Department, Govt. of Telangana
6. Sri Uday Bhaskar, CGM, NABARD, Hyderabad
7. Sri T Jagdish Kumar, DGM, RBI, Hyderabad
8. Sri Rajesh Kumar, CGM, SBI, Hyderabad Circle
9. Sri Prakash Chandra Baror, GM, SBI & Convenor, SLBC, Telangana

Senior Officials from the line departments of Govt of Telangana, Government of India, executives from Public Sector Banks, Private Sector Banks, RRBs, SFBs, Payments Banks, representatives of various Federations of Agriculture and MSME etc.,

Sri Rajesh Kumar, CGM, SBI, Hyderabad Circle presented the performance of the banks in Telangana during the quarter December 2024 as under:

Total Deposits of the banks grew by **Rs. 36,915 crores** during the FY 2024-25 so far and the total deposits were at **Rs.8,16,868 crores**. Total Advances with Banks grew by **Rs. 74,865 crores** and the advances of all banks were at **Rs. 10,53,924 Crores** CD ratio continues to be above 100 percent and it is maintained at **129.53 %** as at the end of the quarter During first 3 quarters, Banks have disbursed Short Term Pro-



duction Loans amounting to **Rs. 58,791 crores** achieving **64.75%** of the targets. Banks have disbursed **Rs.49,964** crores as Investment Credit to Agri. Allied, Agri. Infra and Agri. Ancillary activities, achieving **81.56%** of the targets. Banks have disbursed Education loans amounting to **Rs.487 Crores** and Housing loans amounting to **Rs.2,781 Crores** under Priority Sector during the current financial year so far. For Micro, Small & Medium enterprises (MSME) segment, Banks have disbursed **Rs.1,00,862** crores, achieving **77.80%** of the targets. Under Pradhan Manthri Mudra Yojana Scheme, Banks have sanctioned **Rs.8,441** crores achieving **61.01%** of the annual targets Banks together have disbursed an amount of **Rs. 2,16,112** crores to various sections of borrowers under Priority Sector, recording an achievement of **72.41%** of targets. **On the Financial Inclusion front;**

a) Banks in the State have **122.37 lakh** PMJDY accounts in their books and **100.90 lacs** i.e., **82.45%** of the PMJDY accounts are seeded with Aadhar. RuPay cards are issued to **88.02 lacs** i.e **71.93%** of the PMJDY accounts. b) As far as the social security schemes are concerned, Banks have covered **182.52 lakh** customers under Pradhan Manthri Suraksha Bheema Yojana (PMSBY) and **84.75 lakh** customers under Pradhan Manthri Jeevan Jyothi Bheema

Yojana (PMJJBY). **21.27 lakh** customers have subscribed for Atal pension Yojana scheme.c) Under PM Svanidhi Tranche 1, Banks have sanctioned **4,27,855** applications and disbursed **loans to 4,26,084 Street Vendors**. Under Tranche 2, Banks have sanctioned **2,25,211** applications and disbursed loans to **2,20,550** Street Vendors. Under Tranche 3, Banks have sanctioned **76,124** applications and disbursed **72,962**. Under Agriculture Infrastructure Fund, banks have sanctioned **Rs.3018 crores** against a cumulative target of **Rs.3200** crores so far. Speaking on the occasion, Shri Tummala Nageswara Rao, Hon'ble Minister for Agriculture emphasized the need for Banks to focus more on achieving annual targets under Agriculture and allied activities. He further sought the support of Banks in focusing more on PMFME scheme, loans against Warehouse receipts, Farmer Producer Organisations and Oil Palm cultivation, by exploring the abundant potential available in the State.

Shri Bhatti Vikramarka Mallu, Hon'ble Deputy Chief Minister, while applauding the efforts of Banks in achieving various targets, sought the Banks to be benevolent in focusing more on extending credit to agriculture, weaker sections and SHGs. Further, he conveyed that more and more micro enterprises are to be credit linked, which will bring in significant change in scenario. From the

view point of priority sector lending, he advised the Banks to have more exposure in Priority sector lending with a special focus on all support to various schemes being formulated by Social Welfare Departments, so as to uplift the weaker sections, more particularly rural unemployed youth. He further assured the Banks of all needed support from the State Government, in partnering with social development of the State. He appealed to all Banks for actively involving in another flagship scheme of State Government, "Indira Mahila Shakthi scheme", for empowerment of SHG women, by extending credit to potential income generating activities, including Solar Energy plants. Shri Sri N Sridhar, IAS, Principal Secretary, Scheduled Castes Development Dept, Govt. of Telangana, Sri E Sridhar, IAS, Secretary, BC Welfare Department, Govt. of Telangana, Sri Uday Bhaskar, CGM, NABARD, Hyderabad, Sri T Jagdish Kumar, DGM, RBI, Hyderabad, also spoke on the occasion. The meeting concluded with vote of thanks by Shri Prakash Chandra Baror, GM, SBI & Convenor, SLBC, Telangana.

(Prakash Chandra Baror)

GENERAL MANAGER & SLBC
CONVENOR

STATE BANK OF INDIA. LHO,
HYDERABAD

Date: 28.02.2025

Early diagnosis, affordability of treatment continue to remain hurdles in tackling rare diseases in India

Rare Diseases are defined as those that affect a small number of individuals: fewer than 1 in 2,000 people. They are often chronic, debilitating and at times life threatening, and require long-term and specialised treatment. With more than 7,000 types of rare diseases in existence, the burden, globally, is immense. To date approximately 400 million people live with a rare disease. Rare diseases are more often than not a neglected and marginalised group of diseases. About 80% of rare diseases have a genetic cause. About 50-70% are seen in children, and, in many cases, lack approved therapy for management. In 2021, the United Nations rolled out the first resolution addressing the problems of people with rare diseases and families, calling on member states to provide access to safe and affordable healthcare. India contributes to one-third of the global burden of rare diseases with about 70 million estimated to be affected. The average time of accurate diagnosis is anywhere between 4.8 to 7 years, with 30% of affected children dying before the age of 5. Under the aegis of the National Policy for Rare Diseases 2021, 12 Centres of Excellence (COE) and five NIDAN Kendra were identified by the Union Ministry of Health and Family Welfare's Department of Biotechnology for diagnosis, genetic testing, genetic counselling, prevention, treatment and education at all levels, on rare diseases. Financial support of up to ₹50 lakh is available to patients suffering from all categories of rare diseases for treatment in any COE. The Institute of Child Health (ICH) and Hospital for Children, Egmore in Chennai, is one of the COEs in Tamil Nadu

Advances in genetic technologies like Next Generation Sequencing (NGS) have made diagnosing rare diseases more accessible than before. Precision medicine, including enzyme replacement therapies, gene



therapies and gene editing is transforming treatment options. Orphan drugs with regulatory concessions ensure faster approvals and easier access for patients. Drug repurposing is also opening up new possibilities, giving existing medications a fresh role in rare disease management. All these positive developments give hope to families with affected patients. However there are still many challenges to be overcome. Achieving the correct and early diagnosis is difficult, contributed to by poor knowledge amongst patients and healthcare professionals of the

typical signs and symptoms of these diseases. Treatment is often very expensive and affordability is a huge obstacle faced particularly in middle-income and low-income countries. Parents and caregivers of children with rare diseases face a tremendous burden.

Their problems include insufficient information and few treatment and management options and even if treatment is available, there is a high cost involved. Repeated hospital visits needed for the patient may also

cause an additional financial burden. People with rare diseases are often stigmatised and face social discrimination. In addition to this, they have accessibility problems in schools and at workplaces, making everyday routine activities challenging. The need of the hour is to provide early and correct diagnosis as well as effective and affordable treatment. Other areas to be focussed on include increasing awareness about rare diseases amongst the general public, particularly in creating inclusive work environments, and supportive and sustainable ecosystems.

When Madras disbanded NCC opposing the use of Hindi commands to the cadets

On January 23, 1968, along with the historic two-language policy, the Madras Assembly adopted another resolution to disband the National Cadet Corps (NCC) for "imposing" Hindi by way of commands given to its cadets. It was compulsory then for students to enrol in the NCC. The resolution, moved when C.N. Annadurai was the Chief Minister, said, "that in the National Cadet and other Corps, commands shall not be in Hindi and if the Union Government refuses to accept this suggestion, such Corps shall be disbanded". What connects Mahatma Gandhi, Hindi and Chennai?

A day before Republic Day, the NCC activities were suspended in Madras, pending a reply from the Centre. Law Minister S. Madhavan said the government would have no objection to continuance of the NCC if the commands were in Tamil or English. That year, in view of the "anti-Hindi feelings" in the State, the NCC decided not to hold the Republic Day parade. Alternative formation The NCC Directorate received telegrams from various towns regarding the suspension of training in schools and colleges and it referred them to the Defence Ministry. Reports from

The Hindu archives provide interesting insights. Annadurai had even said that if the Centre did not yield, the State was prepared to start an alternative formation for the benefit of students. Incidentally, around that time, Kerala Chief Minister E.M.S. Namboodiripad told journalists that he had listened intently to the commands given by NCC instructors, but he could not identify the language they used. Strangely, on February 14, when the issue was raised in the Lok Sabha, Minister in the Ministry of Home Affairs V.C. Shukla said the Madras government had not threatened to disband the NCC units. A week later Deputy Minister of Defence M.R. Krishna informed the Lok Sabha that the Madras government's request that the commands in the NCC training be in English or the regional language was being considered. In March, after calling on Annadurai at the General Hospital, Krishna said the Centre would "go slow" on this touchy issue and hoped that "things will improve" once the excitement died down. In the midst of this controversy, the Union Education Ministry decided in March to make the NCC an optional activity in colleges from the following academic ses-

sion. Students were to be given the choice of joining the National Service Corps and the National Sports Organisation, as recommended by the Education Commission in 1967. The Madras government's opposition to Hindi commands, however, was not endorsed by The Hindu. While welcoming the decision to make the NCC optional, an editorial published on March 25, 1968, said, "The Defence Services have been using Hindustani commands even from pre-Independence days and they can scarcely be expected to change just because one State, Madras, has taken objection to it. Unless a compromise is worked out, the N.C.C. is likely to fade out of Madras, with consequent fall in the recruitment of young men from the State to the Defence Services." In the Assembly, Swatantra Party member H.V. Hande expressed apprehensions that boys, who looked forward to a career in the Armed Forces, would be handicapped if the NCC was given up. Education Minister V.R. Nedunchezhiyan, however, assured him that if it became necessary to discontinue the NCC, alternative arrangements would be considered for giving similar training to the students. 'Standardised commands' The

Union government had pointed out that most NCC commands were in English and "only a few, perhaps ten or fifteen, were in Hindi". The then Director-General of NCC, Major-General Kalha, had a meeting with Nedunchezhiyan and told journalists that it was difficult to change the few Hindi words of command. "These words were standardised and introduced in 1953 and nothing had been done to revise them," he added. The State, however, remained firm. Nedunchezhiyan pointed out that the State was spending about ₹80 lakh on the NCC annually and not all cadets preferred joining the Armed Forces. In March 1969, the government appointed a committee to recommend a scheme in place of the NCC. M. Karunanidhi, who had taken over as the Chief Minister following Annadurai's death on February 3, told the Assembly that the new scheme would come into force by June-July. Police officers and retired military officers were to be employed to train the Tamil Nadu Cadet Corps, Education Minister S. Madhavan told Signs of compromise first emerged in April when the Internal Affairs Committee of the Union Cabinet discussed the issue of using certain English commands.

First detailed map of moon's south pole area made from Chandrayaan data

Astronomers are excited to be poring over the first ever detailed geological map of the moon's south polar region, where India's Chandrayaan-3 lunar module, Vikram, touched down on August 23, 2023. The map is expected to throw new light on the moon's origin and evolution. Researchers from the Physical Research Laboratory (PRL) in Ahmedabad, Panjab University in Chandigarh, and the Laboratory for Electro-Optics Systems, Indian Space Research Organisation, Bengaluru, created the map using data from the rover Pragyan, which was deployed by Vikram on a nine-day mission to analyse the chemical composition of the regolith — the loose rock fragments and dust that cover the lunar surface. The cornucopia of geological information from the mission has helped scientists confirm what they always suspected: the moon harbours an underground ocean of molten rock, or primordial magma. Data from previous missions, such as the US uncrewed Surveyor spacecraft, the crewed Apollo moonshots, and the robotic Russian Luna and Chinese Chang'e 3 probes, indicated the presence of such a sea of lava beneath the lunar surface. But the actual extent of magma on the moon was not known since all the available data came from landing sites near the lunar equatorial and mid-latitude regions, which are far away from the poles.

Chandrayaan-3, however, was the first mission to land in a high-latitude polar region of the moon, 630 km from the south pole, and scientists considered it the best bet to solve the magma mystery. In September 2024, a team of lunar geologists from PRL announced that the Alpha Particle X-ray Spectrometer aboard the Pragyan rover had detected magma under the landing site. This meant the ancient ocean of molten lava extended across the entire moon. The new map of Vikram's landing site, published in the journal *Advances in Space Research* on January 20, shows an undulating landscape of highlands and low, flat plains around the lander. The researchers traced the alignment of secondary craters — dug up when debris from an impact crater lands elsewhere — and identified Schomberger to be the primary source of the debris covering the Chandrayaan-3 landing zone. Using the map, the scientists calculated the age of the region to be around 3.7 billion years, around the same time the first signs of microbial life emerged on the earth. In fact, the earth and the moon have had similar evolutionary trajectories, as is evident in the dynamics of the earth-moon system. The inclination, or tilt, of the moon's orbit is for example to the earth's rotation and both bodies are similarly aligned to the ecliptic plane of the solar system. Their terrestrial and lunar geochemistries are also complementary, with both possessing several common isotopes, pointing to their origins from the same cloud of molten material.

Astronomers believe that some 4.5 billion years ago, when the planets of the solar system were coalescing out of the rubble floating around the sun, the young earth had collided with a massive planetary rock roughly the size of Mars. The resulting debris from the collision was flung outwards explosively, before it cooled over millions of years. This proto-planetary material gradually solidified

into a molten sphere that was eventually captured by the earth's gravity to become the moon we see today. In those early millennia, the infant moon must have been pummeled by asteroids and space rocks as is evidenced by its surface, which is studded with numerous craters. The Vikram lander had touched down close to one of the oldest of these craters: the South Pole-Aitken Basin, which is also one of the largest impact craters in the Solar System. Lunar craters are of great interest to astrogeologists, who study them to learn more about the evolution of impact craters elsewhere on the earth and on the inner planets of the solar system. The cratering history and arid conditions on the moon render it a sterile environment in which craters can survive erosion for millennia — unlike on the earth where atmospheric elements abrade craters very quickly. In fact, lunar impact basins are veritable time capsules because they preserve the original records of space-rock smash-downs that occurred during the formation of the solar system. The scientific value of lunar craters becomes even clearer when we consider how scientists can't, even with the help of supercomputers, reconstruct the cratering history of the earth beyond a few hundred million years. Given that lunar craters are important tools for scientists to calculate the age of geological features on other planets with solid surfaces, moon maps like the new one assume greater significance. Sadly, the "magnificent desolation" of the moon — words Apollo 11 astronaut Edwin "Buzz" Aldrin used to describe the crater-studded lunar wilderness — may not endure undisturbed for very long as efforts to colonise the moon get underway. Littering the regolith



After the erstwhile Soviet Union's Luna 2 lander became the first probe to 'land' (it was intentionally crash-landed) on the moon way back in 1959, scores of robotic and crewed spacecraft from the US, China, India, Israel, Japan, and the European Space Agency have reached the moon's surface. Alas, these missions have also left spacecraft components and other waste items behind, littering the regolith. It is largely unknown how the landers, rovers, and the dozen US astronauts — who planted flags, hit golf balls, drove around in rovers, and collected hundreds of kilograms of moon rock — may have disturbed the regolith, which sustains the thin lunar atmosphere. The moon's exosphere was formed when space rocks and the solar wind, the stream of charged particles flowing outwards from the sun, kicked up the powdery dust from the lunar surface. Scientists also worry about the contamination of lunar ice reserves by

exhaust fumes from lunar landers. When a spacecraft touches down on the moon, the water vapour released from its engines spreads across the lunar surface and ends up freezing at the poles. This leads to inaccurate readings for scientists who are studying the presence and the distribution of lunar water ice. These concerns are bound to increase as more and more missions head for the moon and mining for lunar resources eventually becomes a reality. Compacts like the Outer Space Treaty of 1967 are silent on these issues, merely making vague statements on the need to avoid contaminating space. It is high time an international legal framework is put in place to prescribe rules and guidelines for the first human colonies on the moon, which are not very far away. The sooner this is done, the better the chances of preserving the pristine nature and unique landscape of our nearest neighbour in space.

How three IITians transformed education in Kashmir, sending students to IITs and NITs

Two young girls from Kashmir Sadaf Mushtaq and Simrah Mir, shattered barriers by securing 99+ percentile in JEE Main 2025. Sadaf achieved 99.50 percentile, while Simrah secured 99.39 percentile - a milestone for Kashmiri girls in competitive exams. It didn't happen overnight. There has been a slow but steady movement in the Valley towards STEM education and preparation for competitive exams.

One of the factors that led to this is three IITians coming together. One of them, Salman Shahid, received the Young Alumni Achiever's Award at IIT Kharagpur last year. Mr. Shahid with fellow IIT alumni Mubeen Masudi and Imbesat Ahmad boasts of sending at least ten students to IITs and around 80 students to NITs every year from the Kashmir Valley. The three IITians founded RISE, a for-profit educational institute in 2015. Based out of Srinagar, they train students to perform well in competitive examinations. During the award ceremony at Kharagpur, Mr. Shahid met 15 Kashmiri students, some being his students. "That's when I realised how much of an impact our efforts have made," Mr. Shahid says. Co-founder Mr. Masudi got into IIT Bombay in 2007. He was

only 17-years-old and still remembers the moment he secured admission as if it were yesterday. As a young Kashmiri student, he felt overwhelmed. "It makes me emotional as before that I had never seen people from Kashmir making it to the IITs," he says. Though Mr. Masudi is a native of Kashmir, he grew up in other tier-one cities which brought better education opportunities. Due to his father's transferable job at the Steel Authority of India (SAIL), he spent his formative years in Mumbai, Chennai, and Delhi. He discerned the stark contrasts between the academic opportunities that he had and those of his relatives back in the valley. "I spent some time with my cousins in Kashmir — they were just like me, economically and intellectually. But the opportunities and circumstances they had were challenging, which to me was quite disheartening", he says. Mr. Shahid, originally from Delhi, had spent a few years of schooling abroad. While still in college, Mr. Shahid and Mr. Ahmad had been involved in teaching school students via NGOs in and around Kharagpur. Their passion for education led them to analyze the state of education in Kashmir after they met Mr. Mubeen. They observed a genuine lack of awareness and

access to quality guidance. They found that Kashmiri representation in IITs was nearly non-existent. Those who did make it were students who could afford coaching outside Kashmir. This glaring gap in access motivated them to create an institution that would level the playing field for Kashmiri students. "Why should every Kashmiri student have to go to Kota for JEE preparation? Why can't they get good resources to prepare for it in Kashmir itself?", they say. What began as a small initiative with a handful of students has now become a platform that is able to allow hundreds of young Kashmiris to dream big. The trio initially thought to work on it for two years. "If it didn't work out, we could always go back to corporate jobs," says Mr. Shahid whose parents were not happy with this decision. In 2015, starting an IIT coaching institute in Kashmir was not the done thing. Initially, they had a few supporters. "When we started, some people even called us frauds," Mr. Masudi says. By 2016, four RISE students had made it to the IITs, and their success story made it to the front page of a national daily. Since then, every year, RISE students have been making it to the IITs. Around 150 students enroll at the institute every year.

Engineering medicine: The future of CAR-T and CRISPR technologies

The fourth industrial revolution marked by the fusion of technologies is blurring the lines between the physical, digital and biological worlds. And it is at this intersection that the future of medicine is being written, with innovations like CRISPR and CAR-T therapy unlocking the potential to not only treat diseases but cure them. From editing the human genome to reprogramming immune cells to fight cancer, these approaches promise to transform healthcare as we know it. But as we stand on the brink of this new era, the question is no longer if these technologies will change lives — but how they will reshape the framework of human biology, ethics, and society itself. In 2012, Jennifer Doudna and Emmanuelle Charpentier published their groundbreaking work, revealing that CRISPR/Cas9 could be re-engineered as a gene-editing tool. They won the Nobel Prize in Chemistry for this, in 2020.

On December 8, 2023, the United States' Food and Drug Administration (FDA) approved of a gene therapy treatment for transfusion dependent beta-thalassemia and sickle cell anaemia (SCA) patients — a decision that will revolutionise medicine and change countless lives. Yet, I find myself grappling with mixed emotions. While technology and medicine have always been intertwined, never have we imagined breathing life into extinct creatures or mending/tailoring our genes, ideas nothing short of science fiction.

What is CRISPR?

Casgevy and Lyfgenia, the two cell-based gene therapies approved by the FDA, utilise the CRISPR/Cas9 genome editing technology. Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR) / CRISPR-associated protein 9 (Cas 9) evolved naturally as a defence mechanism in bacteria and archaea. It was first reported in *E. Coli* in 1987 by Ishino et.al. In a nutshell, the system serves as a genetic memory for past infections by incorporating a part of the viral genetic material into its own, so that the next time it is invaded, the bacteria is capable of recognising the virus and destroying it. The bacteria, in short, has developed an immunisation mechanism to ward off unwanted viral invaders. Watch:2020 Chemistry Nobel for developing CRISPR/Cas9 genetic scissors

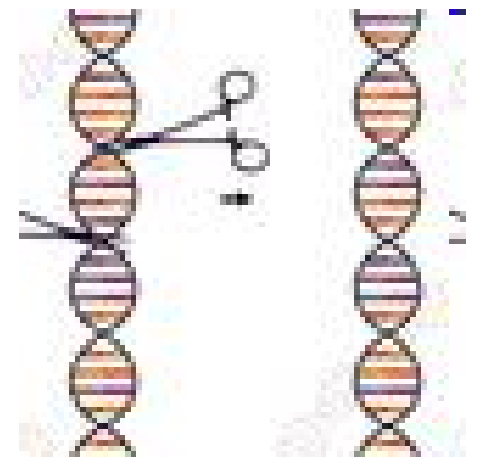
The CRISPR system is easy to manipulate. Researchers have adapted it as a tool to cut, delete, or add DNA sequences at precise locations opening doors to treating genetic disorders, in diagnostics, creating disease/drought resistant plants, or in de-extinction projects involving the woolly mammoth and the dodo. The progress in CRISPR has been rapid. In only a decade since its discovery, we now have a technology with the potential to rewrite genetic code. As exciting as the prospect is, conversations around ethical, societal and safety issues must progress parallelly. Ethical considerations A siren rang across the scientific world in 2018, when Chinese scientist He Jiankui announced he had altered a gene in three human embryos to render resistance to HIV. He was imprisoned for three years in 2019 by a court in China. The scientific community also condemned his actions, and this self-regulation was crucial as it was a clear violation of guidelines that banned germline editing. But nonetheless “designer babies”

became a reality. The sole purpose of Jiankui and his team experimenting with the embryos was to monitor the evolution of two babies, as the genetic intervention was different for each embryo. The idea of such tools in the hands of scientists like Jiankui is terrifying. In an article, Françoise Baylis, a bioethicist at Dalhousie University in Nova Scotia, rightly pointed out “There is a difference between making people better and making better people.” There is also concern amongst the public that the wealthy will exploit this technology for genetic enhancement. While CRISPR, right now, is being used to treat monogenic disorders, it is capable of altering multiple genes. Admittedly however, factors like intelligence are complex traits influenced by many genes and the environment, making it difficult to tailor. In addition, CRISPR has also got its own safety problems, such as off-targeting, that aren't fully understood yet. While there is a consensus within the scientific community to use CRISPR for therapeutic purposes, incidents like the Chinese case are always possibilities. And so, when benefits outweigh the risks where will scientists draw the line? Is it ethical to perform germline editing, even for the purpose of treating diseases? When it comes to human embryos, we face numerous unresolved moral questions and have much to learn about what is right and wrong in this rapidly evolving field. For many in the disabled community, their genetic anomalies are part of their identities. This raises important questions about the intersection of ableism and CRISPR, particularly regarding the potential implications of societal attitudes towards disability as genetic technologies become common. While most would choose gene therapies, there is a concern that such emerging technologies could reinforce the notion that disability is an abnormality rather than a natural aspect of human diversity. This makes it necessary to include disabled voices in discussions from the beginning, prior to clinical applications, and at the policy-making level.

Another factor is the exorbitant price of such technologies. Casgevy costs around \$2.2 million. Sickle Cell Anaemia (SCA) is mostly seen in certain ethnic groups including people of African, Mediterranean and Middle Eastern descent. In India, SCA is relatively higher in tribal communities. Many people from these groups are economically disadvantaged and find it difficult to afford even primary healthcare. Indian researchers are working towards building a cost-effective treatment with CRISPR. But we are talking about a huge leap from basic - hydroxyurea - first line treatment in India to CRISPR, an advanced tool requiring skilled experts. With CRISPR in the market, it is of paramount importance to first initiate dialogues on health equity. According to fundamental cause theory, health disparities persist because advancements in medicine tend to benefit the more advantaged segments of society, leaving disadvantaged groups with less access to new interventions. As seen during events like the COVID-19 pandemic, those with higher social status — who have more resources — can access healthcare more readily than minority populations, who often face barriers in obtaining similar benefits. Will CRISPR help farmers, or will it help the agribusiness giants that invest in it? Will

it find a way to reach the vulnerable or will it become a tool for the wealthy? And do we really need de-extinction projects when we are failing to protect extant animals? As we move into the future and CRISPR becomes easier to use and is better understood, how will future generations choose to alter human embryos on which currently there is a moratorium? The questions are numerous and the answers blurry. It is still early to say when CRISPR will be affordable to a larger section of people. As these technologies emerge and evolve at a rapid speed, regulatory bodies must establish strict guidelines for ethical, societal, safety and environmental issues at the same pace. CAR-T Cell Therapy

The same year that CRISPR's use as a gene-editing tool was discovered, a six-year-old's battle with acute lymphoblastic leukaemia (ALL) would define the entire field of CAR-T cell therapy. Chimeric Antigen Receptor (CAR) T cell therapy genetically alters a patient's T cells (a type of white blood cell) to fight malignant tumour cells by targeting a protein on the surface of cancer cells. When the experimental treatment was in its earliest days, a doctor, Stephen Grupp, was approached by Emily Whitehead's parents looking for a miracle to save their daughter as other doctors had given up all hope. The brand-new therapy began its phase I clinical trial and Emily was enrolled. She became the first paediatric patient to receive the treatment and the first ever patient of any age to receive it for ALL. Twelve years later, it's clear the Whiteheads found the miracle they sought: Emily remains cancer-free. However, the journey was far from easy. Even doctors were uncertain of the treatment's outcome, learning alongside Emily, as challenges arose throughout her care. In 2017, the FDA approved the first CAR-T therapy, paving the way for hundreds of patients to receive the treatment, thanks in-part to courageous families like Emily's. It is important to acknowledge though that not all outcomes are as happy as Emily's. Some patients remain unresponsive or may relapse. Each case is unique and there is a learning curve with each patient. How CAR-T therapy works T cells possess receptors on their surface that can recognise antigens — proteins or molecules identified by the immune system — and when foreign antigens are detected, the immune system signals the T cells to destroy them. However, cancer cells can sometimes express antigens that the body does not recognise as abnormal, preventing the immune system from sending T cells to attack them. In other instances, even if T cells are present, they may not be effective at eliminating cancer cells. CAR-T cells are genetically engineered in a laboratory to include a new receptor that enables them to bind to and kill cancer cells. The development of CAR-T cells involves a multi-step process that begins with collecting T-cells from the patient through a procedure called leukapheresis. These T-cells are then modified in the lab to express CARs on their surface. The gene encoding the CAR is synthesised in the lab, and a vector — often a viral vector, is used to deliver the CAR gene into the T-cells. Once re-engineered, the T-cells are multiplied in the lab to generate millions of cells, which are then sent back to the hospital for infusion into the patient. Typically, patients undergo chemotherapy before



receiving the CAR-T cells. Different types of cancer have unique antigens, which means that each CAR-T cell therapy is designed to target a specific cancer antigen. CAR-T cell therapy costs anywhere between ₹3 to 4 crore, excluding hospitalisation charges, rendering it unavailable to most people. While a few insurance plans do cover the expenses of the treatment in the United States, some procedures might not be covered. Logistics, travel and food are other expenses one needs to keep in mind while undergoing this treatment. The unaffordability of CAR-T therapy fuelled Rahul Purwar's vision of developing an indigenous version. Currently a professor at the Indian Institute of Bombay (IIT-B), Dr. Purwar returned to India in 2013 after completing his postdoctoral programme at Harvard Medical School. Along with his research students — Alka Dwivedi, Atharva Karulkar — and haemato-oncologists Gaurav Narula and Has Mukh Jain from Tata Memorial Hospital, it took a decade to bring this vision to fruition. The process of designing CAR-T cells requires expertise. The researchers collaborated with experts at the National Cancer Institute (NCI) to overcome the challenges they faced. The team had to then approach the Central Drugs Standard Control Organisation (CDSCO) for clinical trial approval, which involved several rounds of revisions. It was also a first for CDSCO, as guidelines were not framed with respect to cell therapy, and they evolved along with the technology. In October 2023, India got its first indigenous CAR-T therapy — NEXCAR19 — that costs around ₹45 lakh, a fraction of its U.S. counterpart. This sum, however, still remains unaffordable for a majority of Indians, for whom accessing even primary healthcare is difficult. Proximity to a well-equipped hospital is also necessary, as some cases may require intensive care utilisation after the treatment and follow-ups on a regular basis. And so as with CRISPR, we circle back to the question of health equity with emerging medical technologies. Can we hope the prices will decrease once manufacturing increases? Can these technologies be implemented in sub-urban and rural India? There is no doubt that CRISPR and CAR-T cell therapy are breakthroughs in the medical field. But because they are still in their initial stages, they come with a million-dollar price tag. Developing new therapies is expensive. In addition to the cost of research, manufacturing, labour, logistics, marketing, distribution and intellectual property development, comes the added work of regulatory approval.

Mumbai cricketers should realise the worth of a Mumbai cap, says chief selector Sanjay Patil

It started the season on a high by reclaiming the Irani Cup after 27 years. Followed it up with a title in the Syed Mushtaq Ali (T20) Trophy. Then failed to qualify for the knockouts in the Vijay Hazare (one-day) Trophy. And the domestic powerhouse Mumbai then signed off from the Ranji Trophy with a semifinal exit. Soon after Mumbai's 80-run loss against Vidarbha, chairman of the senior men's selection committee Sanjay Patil sat down for a chat reflecting on the season. Known for his outspoken nature, Patil did not mince words at the seniors' attitude and the need for looking beyond the same old faces for the next season.

How would you describe the overall season?

We need to concentrate more on youngsters. It's time to look beyond the same old faces and focus on youngsters' technique, performance, skills and temperament. The selectors should be slightly more proactive in pushing for the changes. The players should realise their worth and the value they lend to the team set-up. If they can deliver to their optimum, it can lead to the glory days being revived. Look, we haven't fared badly. A title (Syed Mushtaq Ali Trophy) and a semifinal (Ranji Trophy) is not bad at all but it's definitely not worthy of the dominant past Mumbai cricket has. We are losing from unacceptable situations. It is concerning that the domination is missing. Mumbai was extremely powerful in reacting to a crisis, that's missing now. The seniors are wary about certain players in the opposition and it's discussed in front of youngsters now. That's concerning. Mumbai's 42 Ranji titles are based on its sheer performance and dominance. Last year's title was due to the ability to bounce back. The likes of Shardul Thakur and Tanush Kotian – somewhat Shams Mulani – have bailed the team out time and again, the less said about others the better!

How would you assess the performance in the Ranji Trophy?

Very upset with the way they played (in the Ranji Trophy). It was something that's not expected from Test players and the so-called India cricketers. The kind of dedication we experienced from our seniors was never on display from the current lot. If you are joining the team and are happy only to be signing autographs, it speaks volumes about you. That was the biggest difference between Vidarbha and Mumbai in the semifinals. The greed and grit to win was never seen in the semifinal, or throughout since the second half of the Ranji Trophy. Totally upset with all the big players, including Suryakumar Yadav. First I congratulate Ajit Agarkar, Jay Shah and all the BCCI authorities who forced all the big cricketers to represent their own state teams. Every cricketer owes most of his achievements to his own state. But whenever all the internationals were made to play domestic cricket, they merely participated in these games instead of being involved in the game. The legacy of Mumbai cricket – especially when it comes to international stars' involvement in Mumbai cricket – was not at all seen and it needs to be fixed. It's not that Mumbai isn't capable but you need the hunger to perform as a team and for the team. That hunger was missing from the seniors who came in and their lack of interest in a way rubbed on to the young-

sters. I will not blame the youngsters but the established stars who have graduated from this level and came back should have dominated at this level. It never happened. It has to change.

How can it change?

I have a request for the association to make sure the international stars are made aware of it. Otherwise it becomes unfair on the team and the rising stars. Our association has always stood by us but had no option due to the BCCI diktat. I have a request for Ajit, his committee and the BCCI that whenever you ask the international stars to turn up for their state teams, their performances should be closely monitored. They were asked to play and they did, mostly for the sake of it. All of them should have been monitored by the Indian national selection committee. If you see, all of them only participated, didn't really perform. And it reflects in their team's performance.

Can you talk about the bright spots of the season?

When I was appointed as the chairman of selectors, one of my main objectives was to create a feeder line for the next four-five years. Vidarbha has managed to do it quite effectively and it is reaping rewards, finalist last year and two finals this year. I wanted to give a chance to youngsters. And that's a plus for us, Ayush Mhatre has performed well. Himanshu Singh has done well. Angkrish (Raghuvanshi) and Suryansh (Shedge) have also done exceptionally. So almost all the five-six youngsters we have tried out have done exceedingly well. That's a positive. But they had to miss out on the big games whenever the stalwarts came. And it resulted in those games ending up as either defeats or draws. How do you justify Siddhesh Lad's comeback amidst the policy of promoting youngsters then? No doubt Lad is the highest run-getter for Mumbai but he is 32 and had been overlooked for four years...I really appreciate the way he showed determination. We should also consider that it is never easy for a cricketer who has been omitted for a long time to straight away come in and perform. He has delivered almost every time we wanted him to, except only for the fourth innings in the semifinal. No doubt Siddhesh has grabbed every opportunity presented to him with both hands but what signal does it send to the likes of Suryansh Shedge, Suved Parkar and Armaan Jaffer who have stepped into the shoes during these four seasons? Look, the Mumbai selectors over the years have been consciously trying to have the presence of two senior batters in the middle-order. Their experience has always come in handy and has been instrumental in each of our title triumphs. Their presence results in boosting the team performance and team morale. To be honest, Siddhesh was in a way unfairly dropped after three-four bad matches in a season. You need at least a couple of senior batters who are a certainty in the starting line-up. Their experience counts when the team is in a spot of bother. Siddhesh did it consistently. You had Rahane as the experienced batter...Ajinkya (Rahane) also did it to an extent. There were times Whenever he was required to score runs, Ajinkya couldn't but he delivered in a couple of knocks only over the last two seasons. The second innings of



It started the season on a high by reclaiming the Irani Cup after 27 years. Followed it up with a title in the Syed Mushtaq Ali (T20) Trophy.

the quarterfinal and last year's final. But that's not enough, honestly. For the kind of legacy that Mumbai cricket boasts of, I am overwhelmed with the high esteem other teams and associations hold us at. But I feel such performances are in a way cutting short the legacy. We need to take harsh calls and not pamper too many of them. I feel it's time to carry forward with the attempts made by my selection committee – well supported by Ajinkya Naik (MCA president) and the apex council – in future. If we keep pampering the big names, we will keep going downhill.

Do you think this team would have delivered over the last two Ranji seasons without Rahane as captain?

We cannot conclude anything on such a hypothesis. Look, every individual has a different leadership capability. I was sitting with a couple of national selectors during the Irani Cup tie in Lucknow and we discussed that Ajinkya's captaincy made a big difference. It definitely meant a lot. But only captaincy will not help. He also has to realise it. We need to think about it for sure. He also needs to think about all these factors. He has to lead by example. And bowling, by the way, is a huge worry. We need to find quality bowlers somehow.

Has the selection committee considered his successor for the transition plan?

It's again hypothetical. I don't know whether I will be around or not next season, to begin with. All I would stress on is that we have tried our best to bring back Mumbai's cricket's glory days but more than us, it's those who enter the boundary rope who should realise it. The association is providing them with all the facilities, no stone is left unturned. After all this, if you are only going to participate and not compete, look Mumbai cricket has never been about representation like most other teams, it's only about winning. We have won 42 titles. Besides, one should also consider that not every title-winning team sees players selected for India. Look at us, when you perform for Mumbai, it paves your way for wearing the India jersey.

The best recent example is Tanush Kotian. And that legacy was set by the Wadekars, the Gavaskars, the Vengsarkars and even their predecessors, not because of the current lot.

What is it that's missing?

I am distressed and distraught while saying it but the current lot is not really concerned about it. They need to start realising the worth of a Mumbai cap. And if they do not have the grit and greed to succeed for Mumbai, they should not be wearing the Lion's crest. We lacked the grit to win. Had it not been the case, we would have been preparing for the final right now. Too many guys are shying away from the responsibility and instead leaving it to someone else. That doesn't help the team. It was evident in the semifinal. When a young player is selected for Mumbai for the first time, he has faced hundreds of cricketers in thousands of matches en route. His maturity level is much higher than anyone else in domestic cricket. But when they do not apply and offers excuses like from any other state, it's time to think about whether they deserve to be in the final.

There have been increasing murmurs with every passing year about certain "quotas" having developed in squad selection?

I do not understand the kind of quotas that anyone is referring to. If someone is discussing it, they should tell us who they are referring to! I can vouch for the fact that the Mumbai senior men's selection committee has had only a quota in mind, which is the improvement of Mumbai cricket and to select the squad with the best chance to win a tournament. We have never asked for a club a player represents and we have also believed in a player's abilities beyond his performance on the maidans. I have been given the responsibility of helping Mumbai cricket and I along with all my four colleagues have fulfilled it with utmost sincerity. I will never forget that I was spotted from G Division and elevated to the Ranji Trophy, so I try to be fair to every player around.