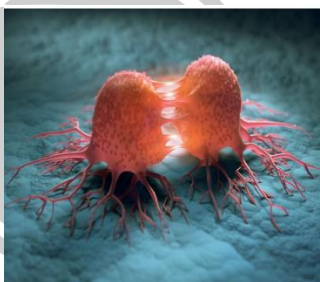


### IIT Kanpur transfers oral cancer detection device 'Munh Parikshak' to Scangenie Scientific

#### Key Points:

- ❖ Now it will be known in just one minute whether there is cancer or not. IIT Kanpur has developed such an amazing device which will give the report within 60 seconds.
- ❖ This device is only for detecting mouth cancer. The device will take a picture of the inside of the mouth and analyze it and give the report immediately.
- ❖ The device offers quick and painless screening with 90% accuracy in clinical settings. It is safe, radiation-free, and does not require any additional chemicals or processes.

#### The Definition of Cancer



- ❖ Cancer is a disease in which some of the body's cells grow uncontrollably and spread to other parts of the body.
- ❖ Cancer can start almost anywhere in the human body, which is made up of trillions of cells.
- ❖ Normally, human cells grow and multiply (through a process called cell division) to form new cells as the body needs them.
- ❖ When cells grow old or become damaged, they die, and new cells take their place.
- ❖ **Types:** There are over 100 different types of cancer, depending on the origin, such as breast cancer, lung cancer, prostate cancer, and leukemia (a blood cancer).
- ❖ **Causes:** Cancer can be caused by genetic mutations, environmental factors (e.g., smoking, radiation, chemicals), lifestyle

factors (e.g., diet, physical activity), infections (e.g., HPV), and heredity. Symptoms: Symptoms vary depending on the type and location of the cancer but may include lumps, unexplained weight loss, fatigue, abnormal bleeding, and pain.

- ❖ **Treatment:** Treatments include surgery, radiation therapy, chemotherapy, immunotherapy, targeted therapy, and hormone therapy. The treatment plan depends on the type and stage of cancer.
- ❖ World Cancer Day is organized by the Union for International Cancer Control (UICC) and celebrated each year on 4 February.
- ❖ 1 in 10 Indians will develop cancer during their lifetime, and 1 in 15 Indians will die of cancer.
- ❖ There are an estimated 1.16 million new cancer cases, 7,84,800 cancer deaths in India.
- ❖ The six most common cancer types in India are **breast cancer, oral cancer, cervical cancer, lung cancer, stomach cancer, and colorectal cancer**. Together, these account for 49% of all new cancer cases.
- ❖ Tobacco-related cancers account for 34-69% of all cancers in men and constitute 10-27% of all cancers in women in most regions in India.
- ❖ As per World Health Organization (WHO), if the incidence of cancer continues to grow at the reported rate, the number of deaths worldwide from cancer will increase to more than 16.3 million by 2040.
- ❖ Also, 40 percent of deaths from cancer are preventable according to WHO.

### Oral cancer detection device 'Munh Parikshak'



**Key Points:**

- ❖ The Indian Institute of Technology Kanpur (IITK) has transferred its technology, 'Munh Parikshak,' a portable device designed to detect oral cancer, to Scangenie Scientific.
- ❖ Developed by Prof Jayant Kumar Singh and his team from the Department of Chemical Engineering at IITK, the device uses special lights and a camera to examine the mouth, providing instant results by analysing images and categorising them as normal, pre-cancerous, or cancerous.
- ❖ The results are displayed on a smartphone app and stored on cloud servers, enabling continuous updates and making it suitable for self-testing.



**Price of the device to detect cancer**

- ❖ Prof. Jayant said that the price of this device to detect mouth cancer will be between 1.5 lakh to 2 lakh rupees.
- ❖ Many of the components used in it have to be imported from abroad, that is why its price is high. At least 5 lakh people can be tested with one device.
- ❖ About 300 people can be tested in a day. The arrival of this device in the market can bring a big revolution in the medical sector.

**Animal Welfare Day**



**Key Points:**

- ❖ Animal Welfare Day is observed annually on October 4.
- ❖ The day aims to inform people about the essential protection and care of animals while striving to inculcate empathy toward them.
- ❖ Theme 2024 – The World Is Their Home Too World Animal Day was first celebrated in 1925 by Heinrich Zimmermann, a German writer and animal welfare activist. Zimmermann initially held the event on March 24, 1925, in Berlin, attracting more than 5,000 attendees.
- ❖ By 1929, the date was moved to October 4 to align with the feast day of St. Francis of Assisi, who is known for his love and respect for animals.



**World Space Week**



**Key Points:**

- ❖ World Space Week is an annual event celebrated from October 4 to 10, highlighting the benefits of space exploration and promoting international cooperation in space activities.
- ❖ Theme 2024 – Space & Climate Change In 1999, the UN General Assembly proclaimed World Space Week by resolution 54/68.
- ❖ The main aim is to celebrate the contributions of space science and technology to the betterment of the human condition.

**ADB grants \$162 mn to support tourism development in Himachal Pradesh**



**Key Points:**

- ❖ **The Asian Development Bank (ADB) announced on 2 October 2024 that it has sanctioned a USD 162 million loan to Himachal Pradesh to support tourism development in the state.**
- ❖ The loan has been provided to finance the state government's Sustainable and Inclusive Tourism Development Project.
- ❖ The state government's Sustainable and Inclusive Tourism Development Project aims to revive the tourism economy in the five districts—Hamirpur, Kangra, Kullu, Mandi, and Shimla which were badly affected during the pandemic.
- ❖ The loan will finance the promotion of heritage and cultural sites in the Mandi and Hamirpur districts and the restoration of the historic Naggar Castle in Kullu.
- ❖ Upgrades to facilities along key travel routes in Kullu, Hamirpur, and Kangra are also part of the plan, focusing on incorporating environmentally friendly technologies such as solar-powered lighting and electric vehicles.
- ❖ These initiatives also aim to improve accessibility for the elderly, women, children, and people with disabilities.

**Other Loans sanctioned by ADB to India**

- ❖ In May 2024, the ADB approved a USD 2.6 billion loan to the government of India for the calendar year 2023. The loan will finance urban development projects, promote the power sector, support industrial corridor development, develop the horticulture sector, enhance connectivity, and build India's climate resilience.

- ❖ In July 2024, the ADB sanctioned a \$240.5 million loan to India to finance the expansion of the solar rooftop system.
- ❖ The ADB loan will be channelled through the State Bank of India (SBI) and the National Bank for Agriculture and Rural Development (NABARD). SBI and NABARD will use the ADB loan amount to provide loans to the developer of the rooftop solar system and to people who want to install solar rooftop systems.

**About the Asian Development Bank**

- ❖ The Asian Development Bank is a regional multilateral institution focusing on the AsiaPacific region.
- ❖ The Bank was founded on December 19 1966, with 31 countries, including India, as its founding members.
- ❖ Currently, it has 68 members, 49 of whom are from the Asia Pacific region and 19 from outside the region.
- ❖ Headquarters: Mandaluyong City, Philippines.
- ❖ President : Masatsugu Asakawa

**President Murmu Presides over Adi Gaurav Samman Samaroh in Banswara**



**Key Points:**

- ❖ President Droupadi Murmu presided over the Rajasthan government's first Adi Gaurav Samman Samaroh at Mangarh Dham, Banswara, Rajasthan, on 4 October 2024.
- ❖ The Rajasthan Governor Haribhau Bagade, Chief Minister Bhajan Lal Sharma, state government ministers and other dignitaries were present on the occasion.

- ❖ President Murmu visited Rajasthan on 3 and 4 October 2024, where she presided over the convocation ceremony of Mohanlal Sukhadia University and attended the Global Summit on Spirituality for Clean and Healthy Society in Mount Abu.

#### About the Adi Gaurav Samman

- ❖ The Tribal Regional Development Department of the government of Rajasthan has instituted the Adi Gaurav Samman.
- ❖ **The Samman has been divided into three categories: Aadiratna Gaurav Samman, Adi Seva Gaurav Samman and Aadi Grammotthan Gaurav Samman.**
- ❖ Aadiratna Gaurav Samman Aadiratna Gaurav Samman is given to a Scheduled Tribe of the state that has excelled in sports, education, literature, culture, science, technology, livelihood, etc.
- ❖ The winner gets a cash prize of Rs 20,000, a citation, and a trophy. In every field, two people, one male and one female, will be honoured.

#### Adi Seva Gaurav Samman

- ❖ Adi Seva Gaurav Samman is given to individuals, Panchayati Raj institutions, nongovernmental organisations(NGO), voluntary organisations, community-based groups, and organisations for their exemplary service for the welfare of the Scheduled Tribes in the state.
- ❖ The award carries a cash prize of Rs 25,000, a citation, and a trophy. The award recipients can be Individuals, institutions, or NGOs from any category.

#### Aadi Grammotthan Gaurav Samman

- ❖ This award is given to a Gram Panchayat, Panchayat Samiti or Zilla Parishad who have significantly contributed to improving the socio-economic condition of the Scheduled Tribes.
- ❖ In this category, Gram Panchayat is given Rs 1 lakh, Panchayat Samiti Rs 2 lakh, Zilla

Parishad Rs 5 lakh cash awards, a citation, and a trophy.

- ❖ This prize money will be used to create community assets that are beneficial to the Scheduled Tribes communities in the state.

#### 32nd convocation ceremony of the Mohanlal Sukhadia University

- ❖ President Murmu presided over the 32nd convocation ceremony of the Mohanlal Sukhadia University at Udaipur on October 3, 2024.
- ❖ Mohanlal Sukhadia University, earlier known as Udaipur University, is a State University established by an Act in 1962 to cater to higher education needs in southern Rajasthan. The University is located in the Aravalli Hill Area, largely dominated by tribal populations.
- ❖ Global Summit on Spirituality for Clean and Healthy Society
- ❖ President Murmu also attended the Global Summit on 'Spirituality for Clean and Healthy Society', organised by Prajapita Brahma Kumaris Ishwariya Vishwa Vidyalaya at Mount Abu, Rajasthan, on 4 October 2024.

#### Banjara Virasat Museum in Washim, Maharashtra inaugurated by PM Modi



#### Key Points:

- ❖ Prime Minister Narendra Modi inaugurated the Banjara Museum in Washim, Maharashtra, on 5 October 2024. During his visit to Maharashtra on 5 October 2024, he visited Washim and Thane. At Washim, the Prime Minister launched several initiatives related to the agricultural and farming sector worth Rs 23,300 crore.

- ❖ During his visit to Thane, he inaugurated and laid the foundation stone for various infrastructure projects. Initiatives/schemes launched by Prime Minister Modi at Washim are as follows.

#### **Inauguration of Banjara Virasat Museum**

- ❖ PM Modi inaugurated the Banjara Virasat Museum in Poharadevi at Washim in Maharashtra. The four-storey museum displays the rich heritage of the Banjara community and their legacies. It tells the story of the Banjara community's history and legacies through the portraits of Banjara leaders and the Banjara movement.
- ❖ Prime Minister Modi also paid floral tribute to the memorials of Banjara leaders Sant Sevalal Maharaj and Sant Ramrao Maharaj.
- ❖ He also played the Nangara, a key musical instrument of the Banjara culture.

#### **Released 18th Installment of PM-KISAN Samman Nidhi**

- ❖ The Prime Minister released the 18th Installment of the PM-KISAN Samman Nidhi, worth about Rs 20,000 crore, directly into the bank accounts of around 9.5 crore farmers nationwide.
- ❖ The PM-KISAN Samman Nidhi scheme is a central government scheme launched by Prime Minister Narendra Modi at Gorakhpur, Uttar Pradesh, on 24 February 2019.
- ❖ Eligible farmers are paid Rs 6000 per year in three installments in their bank accounts.

#### **5th installment of NaMo Shetkari Mahasanman Nidhi Yojana Released by PM**

- ❖ The Prime Minister also released the 5th installment of the NaMo Shetkari Mahasanman Nidhi Yojana at Washim.
- ❖ The NaMo Shetkari Mahasanman Nidhi Yojana of the Maharashtra government was launched by Prime Minister Modi at Shirdi, Maharashtra, on 26 October 2023.

- ❖ It is a state government scheme under which eligible farmers get Rs 6000 per year in three installments.
- ❖ The state government transfers the funds directly into the farmer's bank account.

#### **Launch of Unified Genomic Chip for Cattle and Buffaloes**

- ❖ The Prime Minister also launched the Unified Genomic Chip for cattle and Indigenous sex-sorted semen technology.
- ❖ Indigenously developed Unified Genomic Chip, GAUCHIP for cattle and MAHISHCHIP for buffaloes have been developed along with genotyping services. With the implementation of genomic selection.
- ❖ It will be easier to identify young, high-quality bulls at an early age. •This initiative will increase the availability of sex-sorted semen at affordable prices to farmers and reduce the cost by around Rs 200 per dose.

#### **Dedication of five solar park**

- ❖ The Prime Minister dedicated five solar parks to the nations.
- ❖ These five solar parks, with a cumulative capacity of 19 MW across Maharashtra, were built under the state government's Mukhyamantri Saur Krushi Vahini Yojana— 2.0 scheme.
- ❖ The Prime Minister in Thane inaugurated various infrastructure projects.
- ❖ Some of them are as follows;
- ❖ Inaugurated the Rs 14,120 crore BKC to Aarey JVLR section of Mumbai Metro Line - 3.
- ❖ Laid, the foundation stone of the 29 km Thane Integral Ring Metro Rail Project, to be constructed at the cost of around Rs 12,200 crore.
- ❖ Laid the foundation stone of Rs 3310 crore Elevated Eastern Freeway Extension from Chheda Nagar to Anand Nagar,
- ❖ Laid the foundation stone of Phase-1 of the Navi Mumbai Airport Influence Notified Area (NAINA) project worth around Rs 2,550 crore.

**Mumbai wins the 2024-25 Irani Trophy by virtue of first innings lead**



**Key Points:**

- ❖ Mumbai won the 2024-25 season Irani Cup under its first-innings lead over the Rest of India. Mumbai won the trophy after 27 years, having won it in the 1997/98 season.
- ❖ This was the 16th Irani Cup title for the current Ranji Champion, Mumbai.
- ❖ The Irani Cup is a firstclass domestic cricket tournament held at the Bharat Ratna Atal Bihari Vajpayee Eakana Stadium in Lucknow from 1-5 October 2024.

**About the 2024-25 Season Irani Cup**

- ❖ The Irani Cup is usually the first domestic tournament played at the start of the Indian cricketing season.
- ❖ The previous year's Ranji Trophy champion team plays a Rest of India team in a five-day match.
- ❖ This year, the 2023-24 season Ranji Champion Mumbai, led by Ajinkye Rahane, faced the Rest of India, led by Rituraj Gaikwad. Rituraj Gaikwad won the toss and asked Mumbai to bat first.
- ❖ Batting first, Mumbai scored 527 runs, with Sarfraz Khan being the top scorer with an unbeaten 222 runs. Mukesh Kumar of the Rest of India team was the most successful bowler with five wickets for 110 runs.

- ❖ In reply, the Rest of India were dismissed for 416 runs, with Abhimanyu Easwaran being the top scorer with 191 runs. Shams Mulani and Tanush Kotian took three wickets apiece.
- ❖ Both captains agreed to call off the match in the second innings after Mumbai declared at 329 for 8.
- ❖ Tanush Kotian scored 114 not out for Mumbai in the second innings.
- ❖ Sarfraz Khan was declared the Player of the match for his unbeaten knock of 222.

**About the Irani Cup**

- ❖ The Board of Control for Cricket in India (BCCI) instituted the ZR Irani Cup (popularly known as Irani Cup) in memory of its long-time Treasurer and President Zal R Irani.
- ❖ It is a first-class match between the Ranji Trophy Champion and the Rest of India teams.
- ❖ The first Irani Cup was held in the 1959-60 season and was won by Mumbai (then Bombay) due to its first-inning lead.
- ❖ The Rest of India is the most successful team in the Irani Cup's history, having won it 26 times out of the 61 finals it has played.
- ❖ Mumbai has won it 16 times (shared once and 15 wins).

