

News articles not to be missed

'March - Week 2'

Scientists unearth potential new therapeutic target for inflammatory diseases

Inside Story of the News:

- The School of Biochemistry and Immunology at Trinity's Trinity Biomedical Sciences Institute has made a significant advancement in the understanding of what goes wrong in our bodies when **inflammatory disorders** evolve, uncovering a potential new **therapeutic target** in the process.

Fumarate Hydratase:

- The scientists have found that an enzyme called **Fumarate Hydratase** is repressed in macrophages, a frontline inflammatory cell type implicated in a range of diseases.
- Restoring Fumarate Hydratase in these diseases or targeting important proteins like MDA5 or TLR7 offers a promising opportunity for brand-new anti-inflammatory treatments, which are urgently needed.
- This procedure may be used to treat chronic illnesses like Lupus, Arthritis, Sepsis and COVID-19.
- Lupus is an autoimmune disease that damages several parts of the body including the skin, kidneys and joints.
- Sepsis is an often-fatal systemic inflammatory condition that can happen during bacterial and viral infections.

TROPEX 2023

Inside Story of the News:

- Last week marked the conclusion of the Indian Navy's main operational-level exercise **TROPEX** for the year 2023, which was held throughout the IOR over the course of four months from November 22 - March 23.
- The exercise's theatre of operations, which covered an area of more than 21 million square nautical miles, was located in the **Indian Ocean**, which also included the Arabian Sea and the Bay of Bengal.
- The overall exercise construct included Coastal Defence exercise Sea Vigil and the Amphibious Exercise AMPHEX.
- The Indian Army, the Indian Air Force, and the Coast Guard all participated heavily in these exercises as a whole.
- Its length from north to south up to 35 degrees south latitude was approximately 4300 nautical miles, and its length from the Persian Gulf in the west to the north Australian coast was 5000 nautical miles.
- Over 70 Indian Navy ships, six submarines, and more than 75 aircraft participated in TROPEX 23.

- The Hon'ble Defence Minister of India complimented the Indian Navy for being at the forefront of the 'Make in India' Initiative and leveraging the path of Atmanirbharta to be 'Combat Ready, Credible, Cohesive and Future Proof'.

Bumchu Festival

Inside Story of the News:

- Recently, the **Bumchu Festival** was celebrated in the **Tashiding Monastery**, located in the state of **Sikkim**.

About Bumchu Festival:

- Bumchu festival is celebrated at Tashiding Monastery, West Sikkim on the 15th day of the first month of the Lunar calendar corresponding to the month of February/March.
- The festival's main attraction is the opening of the container holding the holy water.
- The amount of water in this vessel is thought to be a predictor of the upcoming year's fortunes.
- Every year, the vessel is opened to check the water level within; as a result, if the water level is higher or lower, it denotes bad luck, such as diseases, tragedies, and droughts.
- Before the vase is removed from the case, a particular recitation is performed, and the vase's seal is examined.
- The monks open the vessel, take seven cups of water from it, mix it with water from **Rathong Chu** (a sacred river), and then distribute it to the followers.
- Seven cups of water are taken from Rathong Chu and poured in the vase before being sealed till the following year.
- Devotees attend this festival from all across Sikkim as well as from nearby nations like Bhutan, Nepal, etc.

India's first Behavioural Lab to be set up in Jaipur

Inside Story of the News:

- India's first **Behavioural Lab** will be set up in **Jaipur**, Rajasthan.
- Chief Minister Ashok Gehlot has approved Rs 1.22 crore for setting it up.
- The lab will be set up at Harish Chandra Mathur Rajasthan Institute of Public Administration (HCM-RIPA).
- It will be built using state-of-the-art technology.
- IIM Udaipur will manage and run it.
- The IIM faculty will provide instruction in applied methods, and Ph.D.-level certificate programmes will be conducted here.
- Internationally renowned experts will participate in the execution of experiments and workshops, and cutting-edge technology, including ultra-modern software and hardware, will be used **to study human behaviour**.

- Through this laboratory, training programmes for teachers and programmes for practical training in the field of experiential studies will be organised in numerous colleges and institutions.

INS Sahyadri participates in Maritime Partnership Exercise with French Navy

Inside Story of the News:

- The guided missile frigate **INS Sahyadri** of the Indian Navy participated in a two-day maritime partnership exercise with two French frontline warships.
- The exercise took place on March 11 and 12 in the **Arabian Sea**.
- It witnessed a wide spectrum of drills at sea including cross deck landings, boarding exercises and seamanship evolutions.
- In the exercise, the French Navy deployed Mistral class amphibious assault ship FS Dixmude and La Fayette class frigate FS La Fayette.
- The exercise's seamless execution confirmed the two navies' high level of cooperation and interoperability.

About INS Sahyadri:

- INS Sahyadri is fitted with state-of-the-art weapons and sensors, which makes her capable of detecting and neutralising air, surface and sub-surface threats.
- The ship is a part of Indian Navy's Eastern Fleet based at Visakhapatnam.

MSME Competitive (LEAN) Scheme

Inside Story of the News:

- Union Minister for MSME, Shri Narayan Rane, launched the **MSME Competitive (LEAN) Scheme** under **MSME Champions Scheme**.
- LEAN aims to provide a roadmap to global competitiveness for the MSMEs of India.
- It aims to increase quality, productivity, and performance while also giving manufacturers the ability to change their mindsets and become top-tier manufacturers.
- This scheme is an extensive drive to create awareness amongst MSMEs about LEAN Manufacturing practices, and motivate and incentivise them to attain LEAN levels, while also encouraging them to become MSME Champions.
- Under the scheme, MSMEs will implement LEAN manufacturing tools like 5S, Kaizen, KANBAN, Visual workplace, Poka Yoka etc.
- This will be done under the able guidance of trained and competent LEAN Consultants to attain LEAN levels like Basic, Intermediate and Advanced.
- MSMEs can significantly reduce waste through the LEAN process, boost productivity, enhance quality, work safely, expand their markets, and eventually become competitive and profitable.

First edition of Women Icons Leading Swachhata (WINS) Awards 2023 launched

Inside Story of the News:

- To highlight the impact of women in sanitation and waste management, the Union Minister for Housing and Urban Affairs, Shri Hardeep Singh Puri, announced the **'Women Icons Leading Swachhata' (WINS) Awards 2023** on the eve of International Women's Day.
- The WINS Awards 2023 are intended to recognise, honour, and publicise outstanding efforts in waste management and urban sanitation made by women-led businesses and individuals.
- The applications for the awards open from 8th March to 5th April 2023 to
 - Self-Help Groups (SHGs)
 - Micro-enterprises
 - Non-Government Organisations (NGOs)
 - Startups
 - Individual Women Leaders/Swachhata champions
- Applications will be considered under the thematic areas of
 - Management of Community/Public Toilets
 - Septic Tanks Cleaning Services
 - Treatment Facilities (Used Water/Septage)
 - Municipal Water collection and/or Transportation
 - Operation of Material Recovery Facilities
 - Waste to Wealth products
 - Treatment Facilities (Solid Waste Management)
 - IEC, Training, Capacity Building
 - Technology and Intervention
 - Others

Background:

- The Swachh Bharat Mission Urban, the government of India's flagship initiative, was introduced by the Prime Minister in October 2014, and it has been eight years since then.
- The mission has made it possible for women to have access to clean sanitation and to live in dignity while simultaneously providing them with possibilities to earn a living and develop their skills in the sanitation and waste management fields.
- The phrase **"Women in Swachhata"** will soon give way to **"Women led Swachhata"** in India.

First India-Bangladesh cross-border oil pipeline

Inside Story of the News:

- Indian Prime Minister Narendra Modi and Bangladeshi Prime Minister Sheikh Hasina will jointly inaugurate the maiden **cross-border oil pipeline** between their two nations for the shipment of diesel into this nation.
- The two premiers will inaugurate the pipeline on March 18 through video conferencing.

About the pipeline:

- Diesel would be exported from Delhi to Dhaka via the 130 km **India-Bangladesh Friendship Pipeline (IBFP)**, which cost about Rs 3.46 billion to build and was funded by the Indian Line of Credit (LoC).
- The pipeline has been completed.
- In 2017, a long-term agreement was made to import diesel from India to Bangladesh through the pipeline, which runs from Siliguri in West Bengal to a Meghna oil depot in Parbatipur in Dinajpur.
- The pipeline stretches 125 km inside Bangladesh's territory and 5 km inside India.

Identification of 75 Water Heritage Sites

Inside Story of the News:

- There is no provision under the Ancient Monuments and Archaeological Sites and Remains Act, 1958 to declare a site as a "Water Heritage Site" under Archaeological Survey of India (ASI).
- To commemorate 75 years of Indian independence, the Ministry of Jal Shakti established a committee to designate **75 Water Heritage Structures (WHS)**.
- A total of 421 nominations from States/UTs, Central Agencies, NGOs, and the general public were received; of these, the Committee recommended 75 water heritage structures, including 5 from Gujarat and 4 from Andhra Pradesh, respectively.
- In this regard, the "**Jal-Itihas**" sub-portal under the India-WRIS site was unveiled on January 5, 2023, during the first All India State Ministers Conference on Water in Bhopal, exhibiting the 75 WHS.

Exercise La Perouse 2023

Inside Story of the News:

- The Indian Navy joined the Royal Australian Navy, French Navy, Japanese Maritime Self Defence Force, Royal Navy and the United States Navy during **Exercise La Perouse**.
- The multilateral exercise was conducted in the **Indian Ocean** Region on March 13-14, 2023.
- The French Navy hosts the multilateral exercise La Perouse every two years, and this is its third iteration.
- The Indo-Pacific region's participating navies' maritime domain awareness and coordination were to be improved by the exercise.
- The exercise witnessed complex and advanced naval operations including surface warfare, anti-air warfare, air defence exercises, cross deck landings and tactical manoeuvres.
- This iteration of the drill featured participation from the fleet tanker **INS Jyoti** and the indigenously built guided missile frigate **INS Sahyadri**.

Prussian blue insoluble formulations

Inside Story of the News:

- An essential medication, "**Prussian blue**" **insoluble formulations** created using DRDO technology, recently got approval from the Pharmaceuticals Controller General of India.
- The Drugs Controller General of India (DCGI) has granted manufacturing and marketing licences to Scott-Edil Pharmacia Ltd, Baddi, Himachal Pradesh and Skanttr Lifescience LLP, Ahmedabad, Gujarat for the use of Prussian blue insoluble formulations developed under the Technology Development Fund (TDF) scheme.
- The company created the medication based on research done at the Defence Research and Development Organisation's Institute of Nuclear Medicine and Allied Sciences (INMAS), a lab in Delhi (DRDO).
- The drug will be available under the trade name of **Pru-Decorp™** and **PruDecorp-MG**.
- The formulations are used for decontamination of Cesium and Thallium.
- The World Health Organisation (WHO) has designated it as one of the critical medicines for radiological and nuclear crises.
- This aims at achieving Prime Minister Shri Narendra Modi's vision of 'Atmanirbhar Bharat'.

India's first indigenous quadruped robot and exoskeleton

Inside Story of the News:

- **Svaya Robotics**, based in **Hyderabad**, has created India's first indigenous **quadruped (four-legged) robot and wearable exoskeleton** for the defence industry as part of the Atmanirbhar Bharat initiative.
- As technology demonstrators with their design inputs, the robots and exoskeletons were created in partnership with the DRDO Labs, Research and Development Establishment (R&DE), Pune, and the Defence Bioengineering and Electromedical Laboratory (DEBEL), Bengaluru.
- By placing these robots on the front lines, we can save the lives of several soldiers.
- These robots can be enabled even in the areas where the Border Security Force (BSF), Central Reserve Police Force and other paramilitary and military personnel operate.
- In order to improve its defence capabilities, India currently imports sophisticated robots from the US and Switzerland.

About Quadruped Robots and Wearable Exoskeletons:

- Quadruped robots are four-legged robots which can walk or run in uneven and rough terrains.
- These robots might be employed in place of soldiers, for instance, in Leh, where they would otherwise have to go across hazardous terrain.
- They are helpful for identifying terrorist activity and other dangerous spots and collecting the images that can be viewed from any location in the nation.
- The robots can walk beside the soldier and carry 25 kg in payload.
- They can be used in nuclear plants and other industries as well.

- Both are dual-use robots and have multiple use cases in industry and healthcare as well.
- The active exoskeletons, when worn by soldiers, allow them to lift huge loads without exerting much effort.
- Soldiers are not quickly worn out because even though they are carrying 25 kg, they only feel like they are carrying 6 or 7 kg.

Barda Wildlife Sanctuary

Inside Story of the News:

- The **Barda Wildlife Sanctuary**, roughly 100 km from the Asiatic lions' current habitat at **Gir National Park**, has been recommended as a second home for these animals by the Gujarat government.
- The long-delayed proposal to relocate some lions from the country's only and densely populated home is now moving forward.
- This relocation would also safeguard the population from diseases.

ATL Sarthi

Inside Story of the News:

- **Atal Innovation Mission (AIM) – NITI Aayog** launched **ATL Sarthi**.
- It is a comprehensive self-monitoring system to support constantly expanding ecosystem of **Atal Tinkering Labs (ATL)**.
- AIM is establishing ATLs in schools across India to develop curiosity, creativity, and imagination in young minds; and imbibe skills such as design thinking mindset, computational thinking, adaptive learning, physical computing etc.
- As of date, AIM has funded 10,000 schools to establish ATLs.
- As the name suggests, Sarthi is a charioteer and ATL Sarthi will enable the ATLs to be efficient and effective.
- The initiative is built on four pillars: on-the-ground ATL enablement in collaboration with relevant local authorities through **Cluster-based Approach**; providing ownership to schools to analyse their performance through **Performance-Enablement (PE) Matrix**; and regular process improvements. These include a self-reporting dashboard known as "**MyATL Dashboard**" and **Compliance SOPs** for schools to ensure financial and non-financial compliances.
- As a pilot, AIM executed ATL Sarthi with different partners in regions like Karnataka, Andhra Pradesh, Gujarat.

Exercise Bold Kurukshetra

Inside Story of the News:

- The Singapore Army and Indian Army participated in the 13th edition of **Exercise Bold Kurukshetra**.
- The bilateral armour exercise was conducted from 6-13 March 2023, at **Jodhpur Military Station**, India.
- Both armies took part in a command post exercise for the first time in the series, which included computer wargaming and planning elements at the **Battalion and Brigade levels**.
- Hosted by the Indian Army, the exercise involved soldiers from the 42nd Battalion, Singapore Armoured Regiment and an Armoured Brigade of Indian Army.
- The ten-day joint training, which started on March 5th, promoted a shared understanding of mechanised warfare in terms of new threats and developing technologies. Interoperability was developed through a wargame based on computer simulation that used joint operational and tactical procedures that were managed by a joint command post.
- Both contingents gained knowledge of one another's operating procedures and drills, but they also shared ideas and best practices that are used in modern combat zones.
- This exercise was first conducted in 2005.