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NEWS ALERT

Forum for Indian Science Diplomacy

RIS Science Diplomacy News Alert is your fortnightly update on Indian and global developments in science research, technological advancements, science diplomacy, policy and governance. The archives of this news alert are available at <http://fisd.in>. Please email your valuable feedback and comments to science.diplomacy@ris.org.in

GLOBAL

[WHO releases guidelines on digital health interventions](#)

World Health Organisation has released its first guideline on intervention of the digital technology in the health sector. The guidelines emphasise on health data security, easy and accessible information on sensitive health topics, telemedicine and reaching out to the vulnerable populations among other possible uses of digital systems in health-care.

[Solar evaporator for small-scale desalination](#)

Researchers at the University of Maryland have successfully demonstrated a new device for affordable small-scale desalination. The evaporator is made up of wood and uses a technique called interfacial evaporation, wherein thin materials floating on saline water absorb heat on top, leaving behind salt at the bottom surface. The device is particularly suitable for off-grid water generation and purification, especially for low-income countries.

[Eco-friendly 'Coolant' for Refrigeration](#)

Researchers from UK and Spain have identified an eco-friendly solid that could replace the conventional coolants used in refrigeration process. The new green material called neopentylglycol is inexpensive, widely available and functions at close to room temperature. Traditionally, hydrofluorocarbons (HFCs) and hydrocarbons (HCs) are used in refrigerators and air conditioners which are polluting, toxic and flammable, also contribute to global warming, and which are to be phased out under the Kigali amendment to the Montreal Protocol.

[European Parliament approves Horizon Europe](#)

The European Parliament has approved the provisional agreement reached by the co-legislators on Horizon Europe on 17th April 2019. The proposal for the EU research and innovation programme was presented in June 2018 and the approved agreement will apply for the time period between 2021 to 2027. With a proposed budget of €100 billion, Horizon Europe will keep the EU at the forefront of global research and innovation, building on the achievements of Horizon 2020.

International Committee of the House of Lords Released a Report on nuclear issues and NPT

The International Committee of the House of Lords, UK has published a report titled "Rising nuclear risk, disarmament and Nuclear Non-Proliferation Treaty". It asserts that the government shall address grave concerns about the deteriorating state of nuclear diplomacy. Also, the report proposes greater dialogue between all nuclear possessor states about risks in nuclear related applications, to reduce global tensions. This report lays foundation for 2019 Preparatory Committee for the 2020 NPT Review Conference, which is scheduled at the UN, New York, between 29th April to 10th May 2019.

INDIA

MOU signed between CSIR and Ministry of AYUSH

A memorandum of understanding (MOU) was signed between the Ministry of AYUSH and Council of Scientific and Industrial Research (CSIR) on 22nd April 2019. The agreement will make way for cooperation in research and education in areas of traditional systems of medicine and its integration with modern science. Through the MOU, both the organisations will endeavour to enhance their R&D capacities and jointly work towards preserving traditional knowledge related to healthcare, linking and standardising multi-ingredient herbal formulations.

Cabinet apprised about Indo-Brazil Science & Technology diplomacy

The Union Cabinet was apprised about an MOU signed between India and Brazil in May 2018, in the area of Biotechnology. The MOU is a significant step in working out the future agenda for collaboration for innovation in Science & Technology diplomacy. The broad areas of collaboration are biomedicine and health; agriculture breeding practices; biofuel and bioenergy; nanotechnology and bioinstrumentation; and biodiversity and taxonomy.

ICGEB devises way for increasing ethanol production

Researchers at ICGEB have used a novel yeast strain isolated from the natural environment to increase ethanol production by 15.5% by fermenting glucose or rice/wheat straw. The yeast strain called *Saccharomyces cerevisiae* *NGY10* is now being metabolically engineered so as to enable it to ferment pentose sugars. This discovery assumes significance in the wake of India's target of blending petrol with 10% of biofuel by 2022.

Cooperation between Denmark and India in Renewable Energy

The Union Cabinet has given its approval for a strategic cooperation agreement between India and the Kingdom of Denmark in the field of Renewable Energy. The special focus of this agreement would be Off-shore Wind Energy and would enable measures to develop and sustain a highly efficient wind industry. In addition, an Indo-Danish Centre of Excellence in Integrated Renewable Power would be established that would in turn facilitate hybridisation of wind, solar, hydro and storage technologies, improve the testing and R&D, lead to skill development and capacity building in the renewable energy sector, strengthening bilateral cooperation between the two countries.

First Indian Women Scientist elected Royal Society Fellow

Dr Gagandeep Kang became India's first women scientist to be elected as Royal Society Fellow. Dr Kang is the executive director of Transnational Health Science and Technology Institute (THSTI), Faridabad. Dr Yusuf Hamied (also a Padma Bhushan awardee) was

elected as Honorary Fellow. Four other Indian scientists also found place in the newly elected Royal Society Fellows list.

[New Biomaterial to heal detached retina](#)

Researchers from India and Singapore developed a gel with polyethylene glycol, poly (propylene glycol) and poly (ϵ -caprolactone) called EPC, which can act as a natural vitreous substitute to fill cavity between the eye lens and retina. The gel is transparent at room temperature, has similar viscosity and refractive index compared to natural vitreous. Possessing properties of being biodegradable, no long term toxicity and minimum levels of inflammation, the gel can serve as an effective substitute for vitreous in heal detached retinas and conditions like severe myopia.

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