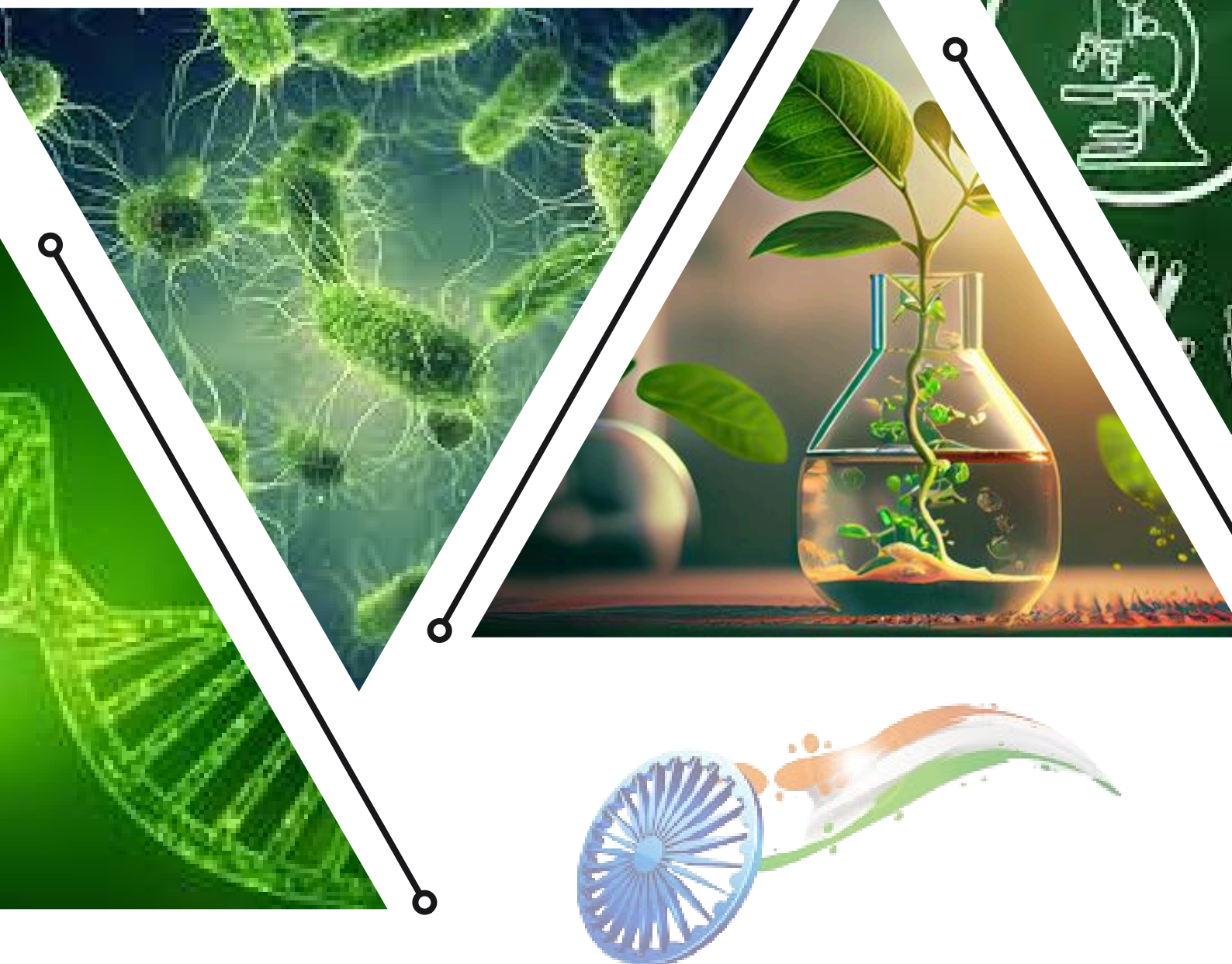


2024

GNIPST LIFE SCIENCE BULLETIN

VOLUME 1, ISSUE 2



Guru Nanak Institute of Pharmaceutical Science and Technology

157/F, Nilgunj Road, Kolkata- 700114, West Bengal, India

Message from Director's Office

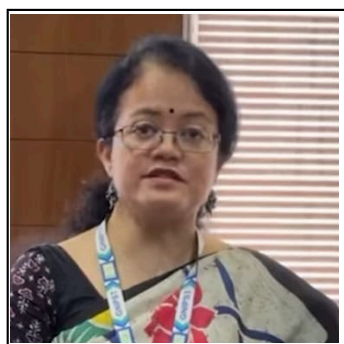


Prof. (Dr.) Abhijit Sengupta

(Director, Guru Nanak Institute of Pharmaceutical Science and Technology)

At Guru Nanak Institute of Pharmaceutical Science and Technology we strive for excellence in our triad of responsibilities: learning, discovery and engagement. Utilizing educational technology and diverse approaches to teaching, our programs bestows students the opportunity to learn fundamental principles and practical applications. Our Life Science Laboratories provide an excellent setting for applying classroom experiences in a simulated practical environment. Research conducted by our faculty provides students with the opportunity to learn about emerging trends in science. Our vision is to be a center of excellence ensuring high-quality value-based education with an international focus to students from all sections of society. As we honor Independence Month, we recommit to empowering students with the knowledge and values that build a stronger, progressive nation.

Message from Principal's Office



Prof. (Dr.) Lopamudra Datta

(Principal, Guru Nanak Institute of Pharmaceutical Science and Technology)

It is my great pleasure to extend a warm welcome to you to Guru Nanak Institute of Pharmaceutical Science and Technology, Department of Life Science. We are among the leading educational institutes of West Bengal aiming to provide quality education to students on subjects such as Microbiology, Biotechnology, Genetics, Medical Lab Technology and Hospital Management both UG and PG levels. GNIPST was established in 2005, affiliated to Maulana Abul Kalam Azad University of Technology, West Bengal. We provide high end laboratory facilities to our students, to inculcate practical demonstrations of the subjects along with amazing internship opportunities and placements. We sincerely believe that rich values and traditions imbibed here along with proper educational facilities would carry the students to greater levels in their life. Take LIFE SCIENCE as a career and join with us to have a academically rewarding student life at GNIPST, Department of Life Science. As we celebrate Independence Month, let us inspire our students to uphold the spirit of freedom through education and innovation. Let's empower our students to honor our nation's legacy by pursuing excellence and contributing to a brighter future.

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"IN THE LONG RUN, THE SCIENTIFIC METHOD IS THE ONLY METHOD OF INQUIRY THAT LEADS TO FREEDOM."

—CARL SAGAN

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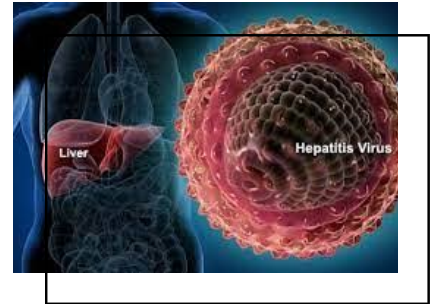
Editorial Board

WHAT'S NEW IN RESEARCH?

Pioneering Progress!

WHO prequalifies the first self-test for hepatitis C virus

The World Health Organization (WHO) has prequalified the first hepatitis C virus (HCV) self-test which can provide a critical support in expanding access to testing and diagnosis, accelerating global efforts to eliminate hepatitis C. The product, called OraQuick HCV self-test, manufactured by OraSure Technologies, is an extension of the pre-qualified, OraQuick® HCV Rapid Antibody Test which was initially prequalified by WHO in 2017 for professional use. The self-test version, specifically designed for use by lay users, provides individuals with a single kit containing the components that are needed to perform the self-test.



[Read more : https://www.who.int/news/item/10-07-2024-who-prequalifies-the-first-self-test-for-hepatitis-c-virus#:~:text=The%20World%20Health%20Organization%20\(WHO,efforts%20to%20eliminate%20hepatitis%20C](https://www.who.int/news/item/10-07-2024-who-prequalifies-the-first-self-test-for-hepatitis-c-virus#:~:text=The%20World%20Health%20Organization%20(WHO,efforts%20to%20eliminate%20hepatitis%20C)

Nasal COVID-19 vaccine shows promise in preventing virus spread



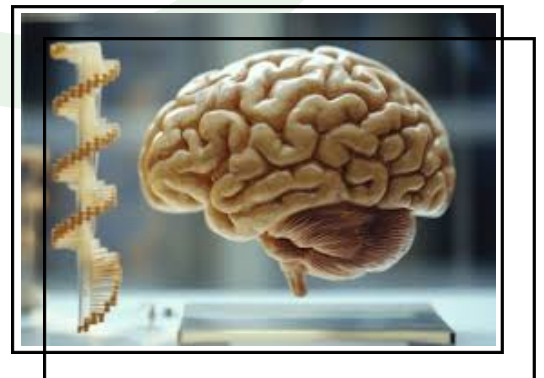
A new study by researchers at Washington University School of Medicine in St. Louis indicates that next-generation vaccines that target the virus's points of entry -; the nose and mouth -; may be able to do what traditional shots cannot: contain the spread of respiratory infections and prevent transmission. Using a nasal COVID-19 vaccine based on Washington University technology, approved for use in India and licensed to Ocugen for further development in the U.S., the researchers showed that vaccinated hamsters that developed infections did not pass the virus on to others, breaking the cycle of transmission. In contrast, an approved COVID-19 vaccine that is injected failed to prevent the spread of the virus.

[Read more : doi.org/10.1126/sciadv.adp1290](https://doi.org/10.1126/sciadv.adp1290)

Harnessing a brain parasite as a tool for delivery of therapeutics to the brain

Toxoplasma gondii, a eukaryotic brain parasite that infects one in three people worldwide, was engineered to deliver therapeutics to neurons in the mouse brain. This technology opens the door to deliver multiple large proteins that have been undeliverable with previous approaches. Further development, such as vector attenuation, will be necessary for many applications.

[Read more : https://doi.org/10.1038/s41564-024-01772-0](https://doi.org/10.1038/s41564-024-01772-0)



CAMPUS CHRONICLES

What's going on?

Students of GNIPST have been selected for 2024 Science Academies' Summer Research Fellowship Program. They are working under the guidance of leading scientists.



“Working under Dr. Shamprasad Varija Raghu in the Division of Neuroscience at Yenepoya Research Center (YRC), Yenepoya (Deemed to be) University, as part of the summer research fellowship program from the Indian Academy of Science (IAS), has been a fantastic learning experience. Dr. Shamprasad Varija Raghu has been a great mentor, guiding me in using the Drosophila model for neuroscience research. I have learned to prepare and clean different types of vials, make and pour media as well as label and plug vials with cotton for the drosophila. I have also practiced sorting flies by gender, transferring them between vials, using different methods for analysing the (flies) drosophila. This internship has helped me understand how to study epileptic behavior in Drosophila and test the effects of anti seizure drugs. I've also learnt the ways for conducting detailed behavioral and molecular tests in our research. I am thankful to my college, GNIPST for thoroughly mentoring me and guiding me. I would never have received this golden opportunity at this stage.”

As said by Alimpon Bhaduri, student of Medical Lab Technology



GNIPST organised an interactive seminar on **Soft Skill Development and Public Communication** in association with **Toastmasters International** on 25th July 2024. It was an amazing experience for the students and we hope it helps in the growth and development of our students.



Students of BBA, Hospital Management are interning at Woodlands Hospital for 3 months.

Working under Dr. Joydeep Roy .Training in a hospital under the guidance of a manager is a vital component of professional development for healthcare staff. It involves a structured approach to enhance skills, knowledge, and competencies necessary for delivering high-quality patient care. Managers play a crucial role in this process by facilitating orientation programs, providing mentorship, and ensuring that staff are familiar with hospital protocols and best practices. Through hands-on training, simulations, and regular feedback, employees are better equipped to handle the complexities of their roles, ultimately leading to improved patient outcomes and a more efficient healthcare environment. I think my alma mater GNIPST for giving us this exposure in the professional fields alongside the theoretical knowledge.

As said by Pallabi Ghosh, student of Bachelor of Hospital Management

List of upcoming events:

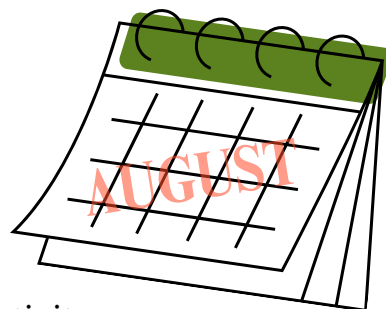
9th August : Orientation program for opportunities in Air Force

14th August : Independence Day Celebration

16th August : Foundation Day Celebration

19th August : World Photography Day Celebration

20th-21st August : Workshop on Use of E-Resources for Research Activity



SCIENTIFIC PIONEERS OF LIBERATION

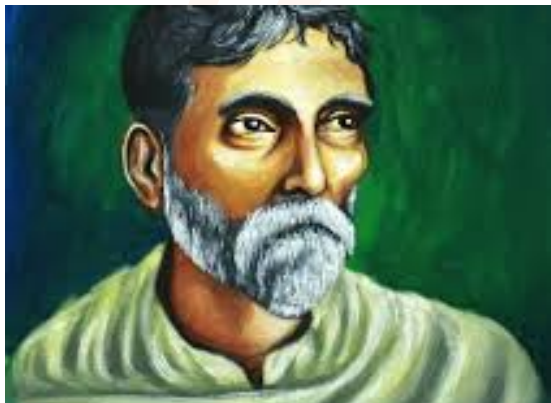
Where Scientific Pursuits Converge with the Fight for Independence.



Meghnad Saha

Oct. 6, 1893 - Feb. 16, 1956

Meghnad Saha, an eminent scientist and passionate freedom fighter, was deeply involved in the Indian independence movement. A member of the Indian National Congress, he leveraged his scientific prestige to advocate for educational and scientific reforms. Saha's groundbreaking work, including the Saha Ionization Equation, not only advanced astrophysics but also reflected his commitment to India's progress. His efforts in founding key scientific institutions and promoting the Indian Science Congress Association underscored his dual role as a pioneer in science and a fervent supporter of India's quest for independence.



Acharya Prafulla Chandra Ray

Aug. 2, 1861 - June 16, 1944

Acharya Prafulla Chandra Ray was a distinguished scientist and a fervent nationalist who played a crucial role in India's independence movement. An active participant in the Swadeshi Movement, he advocated for the use of Indian-made products and self-reliance to strengthen India's economy and reduce dependency on British goods. Ray's commitment to educational and social reform complemented his scientific endeavors. His scientific achievements include founding Bengal Chemicals and Pharmaceuticals, India's first pharmaceutical company, and advancing research in mercury compounds. Ray's efforts in promoting Indian industries and education were integral to the nationalist struggle, blending his scientific prowess with a deep commitment to India's independence and development.



Jagadish Chandra Bose

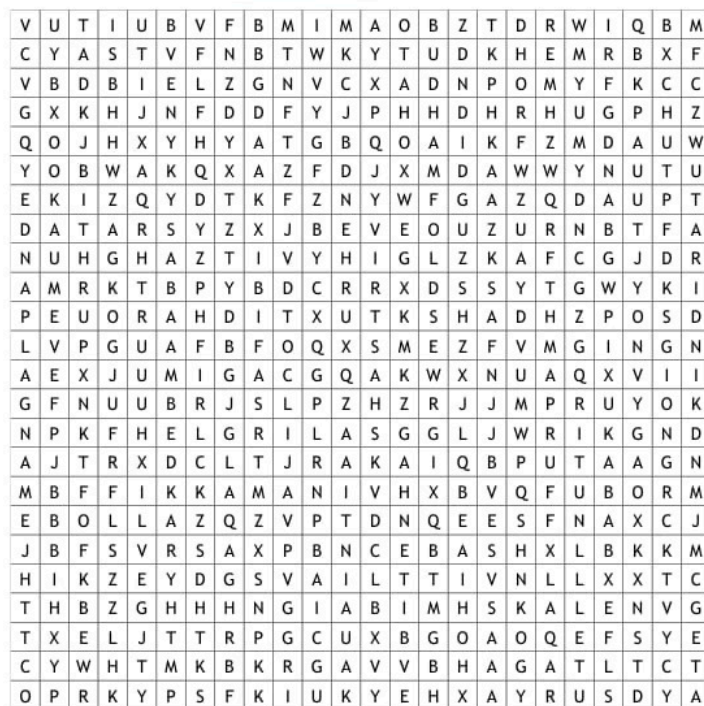
Nov. 30, 1858 - Nov. 23, 1937

Jagadish Chandra Bose was a pioneering scientist and a prominent figure in the Indian independence movement. Renowned for his groundbreaking work in plant physiology and radio wave transmission, Bose's scientific achievements included demonstrating the responses of plants to external stimuli and contributing to the development of wireless communication technology. Bose's involvement in the independence movement was marked by his support for self-reliance and national progress. He advocated for the use of indigenous resources and technology, aligning with the broader Swadeshi Movement. Through his scientific innovations and his commitment to India's self-sufficiency, Bose significantly contributed to both scientific advancement and the nationalistic drive for independence.

ACTIVITY CORNER

JUMBLE PUZZLE!

Unscramble the names of five freedom fighters :



DO YOU KNOW?

Who designed the National Flag of India?

- (A) Pingali Venkayya (B) MK Gandhi
(C) Sachindra Das Bose (D) Hemachandra Kanungo

SUBMIT YOUR ANSWERS:



or



Stay tuned for a shout out to fastest correct answers in the next edition!

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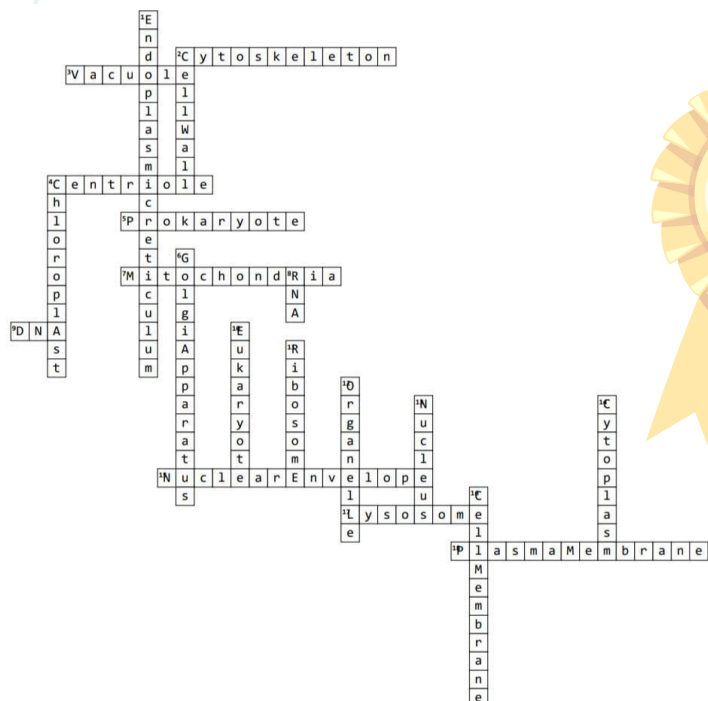
Ms. Ananya Chandra

LS-1 Answer Key!

Volume 1, Issue 1

Cheers to the Victor!

Volume 1, Issue 1



Kuljeet Singh

Guru Nanak Institute of Pharmaceutical Science and
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