

2024 GNIPST LIFE SCIENCE BULLETIN

VOLUME 1, ISSUE 3



यत्र नार्यस्तु पूज्यन्ते रमन्ते तत्र देवताः।
यत्रैतास्तु न पूज्यन्ते सर्वास्तत्राफला क्रियाः॥

Where women are honoured, divinity blossoms there.
And where they are Dishonoured, all actions remain unfruitful.

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 are dedicated to excellence in our triad of responsibilities: learning, discovery, and engagement. We leverage educational technology and diverse teaching methodologies to provide our students with a robust foundation in fundamental principles and practical applications. We are committed to fostering a safe and supportive environment for all our students. Upholding the highest standards of women's safety, we ensure a secure and respectful atmosphere for everyone. Our policies and initiatives focus on the well-being of our students, including a strict anti-ragging stance to promote a harmonious and inclusive campus culture.

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 the Guru Nanak Institute of Pharmaceutical Science and Technology, Department of Life Science. As one of the leading educational institutions in West Bengal, we are committed to providing high-quality education in Microbiology, Biotechnology, Genetics, Medical Lab Technology, and Hospital Management at both UG and PG levels. Our state-of-the-art laboratory facilities are designed to offer hands-on experience, complemented by exceptional internship opportunities and placements. We believe that the rich values and traditions instilled here, coupled with our comprehensive educational resources, will guide our students to achieve great heights in their careers and personal lives. As we celebrate Teacher's Day this month, we wish for all our students to embody not just academic excellence but also strong ethical principles. We encourage you to become good humans with integrity and respect at the core of your values.

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Adorned with lustre and brilliance, I become strength.

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WHAT'S NEW IN RESEARCH?

Pioneering Progress!

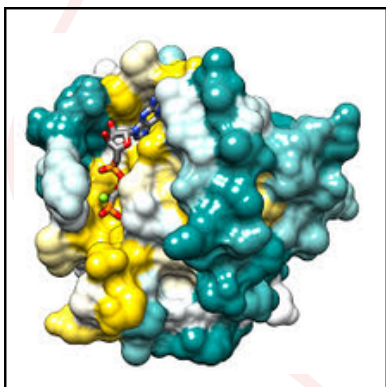
Suman Sahai: Advocate for Agricultural Biodiversity and Food Security

Dr. Suman Sahai is a prominent Indian molecular biologist and the **founder of Gene Campaign**, where she focuses on agricultural biodiversity and the impacts of biotechnology on food security. Her research emphasizes the importance of conserving traditional crop varieties and sustainable agricultural practices, advocating for policies that protect biodiversity while evaluating the socio-economic implications of genetically modified organisms (GMOs) in rural communities. Through her work, Sahai engages with local farmers to incorporate traditional knowledge into modern agricultural practices, aiming to enhance resilience against climate change and ensure food security.



To know more :<https://genecampaign.org/about-us/>

Manju Bansal: Advancing Understanding of Protein Folding and Neurodegenerative Diseases

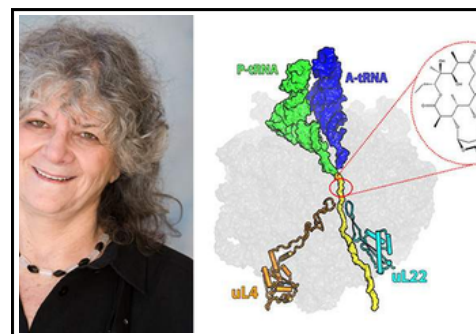


Manju Bansal has made notable contributions to the field of structural biology, particularly in understanding the mechanisms of protein folding and misfolding. Her recent research has focused on the structural dynamics of proteins associated with neurodegenerative diseases, such as Alzheimer's and Huntington's disease. By utilizing advanced computational modeling techniques, Bansal has explored how specific mutations affect protein stability and aggregation, providing insights that could inform the design of targeted therapies. Her work not only enhances the understanding of protein behavior but also bridges the gap between computational biology and experimental approaches, advancing both fields significantly.

Read more : <https://www.ias.ac.in/article/fulltext/jbsc/037/03/0375-0378>

Ada Yonath: Unraveling Ribosome Structure to Combat Antibiotic Resistance

Ada Yonath, a renowned scientist at the Weizmann Institute, has made significant strides in understanding ribosome structure and its implications for antibiotic resistance. Her recent research delves into the intricate architecture of ribosomes, revealing how these molecular machines interact with various antibiotics. By employing advanced crystallography techniques, Yonath's work has elucidated the binding mechanisms of different antibiotics to ribosomal sites, providing critical insights into how these drugs can effectively inhibit bacterial protein synthesis. This knowledge not only enhances our understanding of ribosomal function but also paves the way for designing novel antibiotics that can combat the growing threat of antibiotic resistance, ultimately contributing to more effective treatments for bacterial infections.



Read more :<https://pubmed.ncbi.nlm.nih.gov/16180279/>



CAMPUS CHRONICLES

What's going on?

Faculty Spotlight



"I had the opportunity to took a class in Malaysia, which turned out to be a truly enriching and memorable experience, particularly because it was conducted as part of UNESCO's significant environmental initiatives. The experience was both intellectually enriching and deeply gratifying. The class focused on the impact of wetlands on the environment, a topic of immense global importance and relevance. The discussion delved into the multifaceted impact of these ecosystems, exploring their ecological, hydrological, and climatological significance. I heartily thank my Institution GNIPST for the thorough support."

As said by Dr. Swati Nandi Chakraborty, HOD (GNIPST Life Science)

GNIPST Teachers' Day Festivities



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



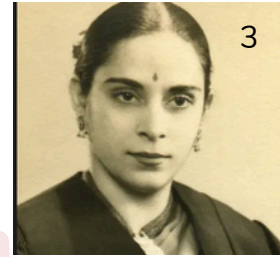
"I got selected in the IAS Summer Fellowship Program. I got this opportunity solely because of the help of my college Guru Nanak Institute of Pharmaceutical Science and Technology. During my summer internship at CCMB (Centre for Cellular and Molecular Biology), I gained hands-on experience in molecular biology techniques, including PCR and gene cloning. I worked closely with scientists on a project related to bacterial genetics, learning how to apply theoretical knowledge to real-world research. The exposure to cutting-edge research facilities was invaluable in shaping my understanding of research field work. This internship has significantly enhanced my lab skills and deepened my interest in genetic research."

As said by Sneha Mondal, student of B.Sc Biotechnology



ACTIVITY CORNER

"Women Who Teach: Pair the the quote to the speaker"
[For example 1-C]



“ Quotes ”

- A. "The power to question is the basis of all human progress."
- B. "Freedom is incomplete until it comes with equality."
- C. "Education is a liberating force, and in our age, it is also a democratizing force."
- D. "I will go to the foreign country not to make a fortune but to gain knowledge for my people."
- E. "Dreams are not just for the privileged; they are for everyone. And education makes it possible."
- F. "I regard the position of woman in this country as the measure of the height of its civilization."
- G. "Art is the expression of the limitless, in forms that are finite."
- H. "Awake, arise, educate, smash traditions – liberate!"
- I. "The focus is what is right before you – to give it your best. It sows the seeds of tomorrow."

SUBMIT YOUR ANSWERS:



or



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



ANSWER KEY

Volume 1, Issue 2

Jumble Puzzle (Unscramble the names of five freedom fighters)

- Savarkar
- Shastri
- Bhagat
- Gandhi
- Indira
- Nehru
- Surya
- Udham
- Chandrasekhar Azad
- Mangal Pandey
- Vallabh Bhai
- Lakshmibai
- Tatya Tope
- Ambedkar
- Bose

Did you know?

- Pingali Venkayya

Shout out to the “Activity Corner” Winner of Volume 1, Issue 2 !



Alimpon Bhaduri

Guru Nanak Institute of Pharmaceutical Science and Technology, BMLT

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Real change in society must start with individual initiative.

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