

2024 GNIPST LIFE SCIENCE BULLETIN

VOLUME 1, ISSUE 5



‘वाहे गुरु दा खालसा, वाहे गुरु जी की फ़तेह’

School Showcase

Turn to Page 3!



Guru Nanak Institute of Pharmaceutical Science and Technology

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

Message from Director's Office

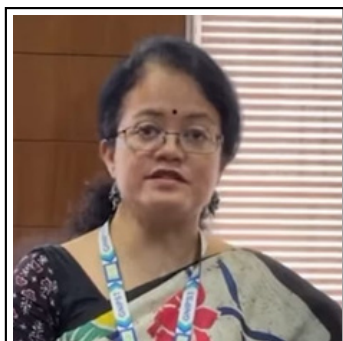


Prof. (Dr.) Abhijit Sengupta

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

At Guru Nanak Institute of Pharmaceutical Science and Technology, we are committed to excellence in our core responsibilities: learning, discovery, and engagement. By harnessing the power of educational technology and employing diverse teaching methodologies, we provide our students with a solid foundation in both fundamental principles and practical applications. Our policies prioritize student well-being, fostering an environment that supports both academic success and personal growth. We are dedicated to maintaining a harmonious and inclusive campus culture, where every individual feels valued and respected. As we celebrate Guru Nanak Jayanti in the month of November, we are reminded of the guiding principles of Guru Nanak Dev Ji that is equality, humility, service, and the pursuit of truth. His teachings inspire us to foster an environment of learning that is not only focused on academic excellence but also on building character, integrity, and compassion. On this special occasion, let us renew our commitment to these timeless values, striving to contribute to a world filled with understanding, respect, and unity.

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, our state-of-the-art laboratory facilities offer hands-on experience, complemented by exceptional internship opportunities and placements. We believe that the rich values and traditions instilled here, along with our comprehensive educational resources, will empower our students to achieve great heights in their careers and personal lives. We encourage all our students to pursue academic excellence alongside strong ethical principles, becoming individuals who prioritize respect and integrity in every aspect of their lives. As we embrace the teachings of Guru Nanak Dev Ji as the name of our Institution suggests, we take immense pride in celebrating Guru Nanak Jayanti, a festival that reflects the spirit of equality, service, and compassion. This occasion reminds us of the profound wisdom and values of Guru Nanak, guiding us in both our academic pursuits and in our personal growth. Let us all come together in the spirit of unity and celebration as we honor the teachings of our revered Guru.



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Let us celebrate the festival of lights by nurturing the flame of creativity and passion within us.

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WHAT'S NEW IN RESEARCH?

Pioneering Progress!

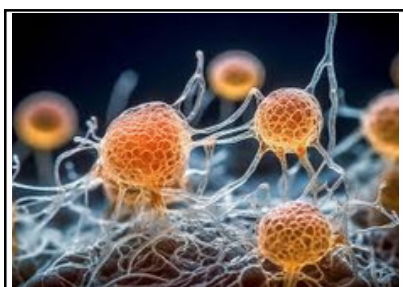
"AI-driven drug discovery: Advances, challenges, and future directions"

The paper "AI-driven drug discovery: Advances, challenges, and future directions" published in Nature Biotechnology (2024) explores how artificial intelligence (AI) is revolutionizing drug discovery by improving the prediction of drug efficacy, designing novel molecules, and enabling drug repurposing. It highlights AI's role in enhancing clinical trial design, identifying biomarkers, and optimizing molecular interactions. However, challenges persist, including data quality, model transparency, regulatory integration, and biases in AI predictions. The paper emphasizes the potential of AI in personalized medicine and hybrid approaches, advocating for increased collaboration and data sharing across the industry to address these challenges and fully realize AI's potential in transforming drug development.



To know more : <https://www.sciencedirect.com/science/article/pii/S266732582400205X>

"Stem cell-based therapies for neurodegenerative diseases: Clinical progress and challenges"



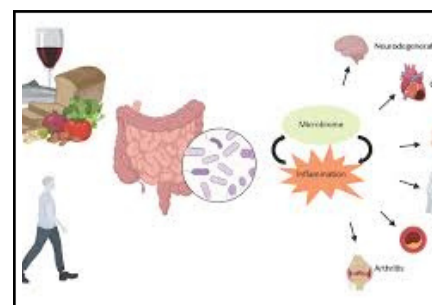
The paper "Stem cell-based therapies for neurodegenerative diseases: Clinical progress and challenges", published in Stem Cell Reports (2024), reviews recent clinical advancements in using stem cell-based therapies to treat neurodegenerative disorders such as Parkinson's and Alzheimer's. It explores promising preclinical results, where stem cells have shown potential to repair damaged neural tissue and restore lost function. However, translating these preclinical successes into effective human treatments has been fraught with challenges, including issues with immune rejection, cell survival and integration, and ensuring the proper differentiation of stem cells into specific neural types. The paper also discusses the difficulties of scaling these therapies for clinical use and the regulatory hurdles that must be overcome to bring stem cell treatments to the broader patient population. Despite these challenges, ongoing research is progressing toward making stem cell therapies a viable option for treating neurodegenerative diseases in the future.

Read more : <https://link.springer.com/book/10.1007/978-981-15-4370-8>

"Microbiome modulation in disease prevention and treatment: Emerging strategies"

The paper "Microbiome modulation in disease prevention and treatment: Emerging strategies", published in Cell Host & Microbe (2024), examines the growing potential of microbiome modulation as a therapeutic approach for metabolic and neurological diseases. It highlights how the gut microbiome plays a crucial role in regulating various bodily functions, and emerging strategies are being developed to manipulate the microbiome to prevent or treat diseases like obesity, diabetes, and neurodegenerative conditions. The paper emphasizes personalized approaches, utilizing probiotics, prebiotics, and dietary interventions tailored to individual microbiome profiles, as these can optimize therapeutic outcomes. By focusing on how specific microbial communities influence health and disease, the paper underscores the promise of microbiome-based therapies, while also addressing the need for more research to fully understand the complexities of microbial ecosystems and their precise impact on disease mechanisms.

Read more : <https://pmc.ncbi.nlm.nih.gov/articles/PMC4220320/>



"The greatest and most important service to the world is to serve others selflessly." – Guru Nanak Dev Ji





CAMPUS CHRONICLES

What's going on? Faculty Spotlight



In the month of November, a series of engaging activities were organized as part of the Intra-College Faculty Competition for JIS Samman. Faculty members participated enthusiastically in a variety of events, including badminton, balance race, carrom, table tennis, chess, and more. These competitions provided an opportunity for the faculty to showcase their skills, foster camaraderie, and promote a spirit of healthy competition within the institution. The event not only highlighted the diverse talents of the faculty but also contributed to building a stronger sense of community and teamwork among colleagues and students.

Immortal Bliss & 'Mind Your Mind' Launch



The second class of the Vedanta Course on 18.11.2024 was an enlightening experience, as we explored the profound concept of "Children of Immortal Bliss." This session delved into the essence of spiritual wisdom, offering deep insights into the eternal nature of the self. In addition, we celebrated the release of the new book "Mind Your Mind," which provides practical tools for mental clarity and emotional well-being. The event was a perfect blend of learning, reflection, and celebration.

Celebrating the Spirit of Guru Nanak: A Day of Faith and Unity

Faculty members at the college came together to celebrate Guru Nanak Jayanti, honoring the birth of Guru Nanak Dev Ji, the founder of Sikhism. The celebration was filled with devotion, reflection, and unity, as faculty shared teachings of Guru Nanak's values of equality, selfless service.



JIS Samman Intra-College Competition Highlights



In the month of November, a vibrant array of activities took place as part of the Intra-College Competition for JIS Samman. Students showcased their diverse talents through events like badminton, quiz, debate, dance, anchoring, singing, carrom, table tennis, chess, and more. The competition provided a platform for students to demonstrate their skills, foster healthy competition, and build camaraderie. It was an exciting and enriching experience, highlighting the creativity and enthusiasm of the student body while promoting a sense of unity and friendly engagement across the college.

National Constitution Day Celebration: Unity in Democracy



The college celebrated National Constitution Day on 26th November with great enthusiasm, where students and faculty members shared inspiring speeches highlighting the greatness of the Indian Constitution and its significance in shaping the nation. The event included a small quiz to test participants' knowledge about the Constitution, followed by everyone taking an oath by reading the Preamble of India, reaffirming their commitment to its values. The celebration concluded with a heartfelt rendition of the National Anthem, fostering a sense of unity and pride among all attendees.



SCHOOL SHOWCASE

PANIHATI VALIKA VIDYALAYA



Panihati Balika Vidyalaya is a pioneering institution in the field of female education and empowerment with a remarkable historical as well as cultural legacy.



The foundation stone of the school was laid way back in 1922 but the present institution at the present location and its current name became functional as a High school from the year 1946. The prestigious institution first received the recognition in 1949 and the first batch of students appeared for Matriculation examination in 1951. The school received H.S approval in 1997.

This leading educational institution has completed 75 years of glorious service in the field of female empowerment and upliftment in the year 2020. In this long and remarkable journey the school has produced many geniuses in academic as well as other fields like that of sports as well as cultural and fine arts.



At present, the school provides all three streams available in higher secondary education, namely science, commerce and humanities. Apart from academic activities the students regularly participate in co-curricular activities. The school holds regular karate classes along with various competitions in other sports like Kho Kho, tug of war, badminton etc. This school presently has an updated computer lab and a well equipped library.

This ancient educational institution is also linked with the legendary figure of female education and emancipation - Begum Rokeya Sakhawat Hosain. This pioneering figure of female liberation died on 9th December, 1932 and was buried in the ground of this school. It is believed that the school ground was the family burial ground of Rokeya. This remarkable discovery had made this school a notable site for all admirers of Begum Rokeya and her glorious achievements.





ACTIVITY CORNER

Sacred Scramble : Decode the jumbled letters into words.

T	N	V	N	N	J	H	L	T	K	C	C	D	N	U	T	S
D	Z	F	S	N	A	N	A	K	S	H	A	H	I	W	O	D
O	Y	P	R	I	U	V	H	H	K	V	J	O	H	C	Y	A
G	U	S	P	Y	G	W	O	M	M	K	T	Q	T	Y	U	N
S	F	H	V	S	F	H	R	V	A	A	L	D	Q	B	Z	O
I	Q	S	B	H	U	B	E	U	M	O	H	I	N	D	U	G
K	X	P	V	B	P	K	T	G	I	A	P	S	N	G	X	C
H	Z	M	E	R	C	H	A	N	T	Q	Y	A	N	E		M
I	N	A	T	S	P	A	N	N	O	W	T	P	H	Z	C	N
S	D	N	W	K	W	L	X	C	Q	T	T	P	B	H	L	F
M	M	J	T	G	I	S	T	Y	D	P	G	E	L	Z	G	Y
A	G	I	K	Y	N	A	V	O	U	K	Z	A	X	L	O	P
B	C	M	B	B	F	E	M	T	K	G	U	R	U	Q	M	A
H	L	H	M	U	S	L	I	M	M	A	T	A	W	C		K
V	P	O	J	U	I	L	V	I	X	T	Q	N	Z	J	C	
U	L	F	P	E	K	M	Y	U	B	L	W	C	A	D	O	S
Z	C	C	X	K	H	D	R	W	P	H	W	E	K	S	R	T
K	L	P	G	N	S	T	Y	E	O	P	B	X	X	N	M	A
D	N	A	N	A	K	J	W	U	P	K	W	V	Z	D	K	N
H	V	N	T	J	E	T	R	A	V	E	L		W	N	E	E
N	D	T	N	Y	S	L	O	X	L	R	R	R	K	D	E	W
L	Q	H	N	W	X	G	Z	O	A	Y	K	P	G	U	Y	U

SUBMIT YOUR ANSWERS:

CLICK

HERE

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



ANSWER KEY

Volume 1, Issue 4

Spot the Difference



Unravel the Riddle

1. Fireworks
2. Candle



Shout out to the "Activity Corner" Winner of Volume 1, Issue 4 !



ANKIT ROY

Guru Nanak Institute of Pharmaceutical Science and Technology, BMLT

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"This Diwali, let's spark change and inspire others to shine brightly in their own unique ways."

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