

Vision

**TO GROW AS A CENTRE OF EXCELLENCE IN THE FIELD OF
PHARMACEUTICAL AND BIOLOGICAL SCIENCE**



Contents

- [Message from GNIPST](#)
- [Letter to the Editor](#)
- [News Update](#)
- [Health awareness](#)
- [Disease Outbreak News](#)
- [Forth Coming Events](#)
- [Drugs Update](#)
- [Campus News](#)
- [Student's Section](#)
- [Editor's Note](#)
- [Archive](#)

[GNIPST Photo Gallery](#)

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For Back-Issues,

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**GURU NANAK INSTITUTE OF PHARMACEUTICAL SCIENCE AND
TECHNOLOGY**

03-01-2014

MESSAGE FROM GNIPST

GNIPST BULLETIN is the official publication of Guru Nanak Institute of Pharmaceutical Science & Technology. All the members of GNIPST are proud to publish the 31st Volume of “GNIPST BULLETIN”. Over the last two years this bulletin updating readers with different scientific, cultural or sports activities of this prestigious institute and promoting knowledge of recent development in Pharmaceutical and Biological Sciences. Student’s section is informing readers about some curious facts of drug discovery, science, sports and other relevant fields. We look forward to seeing your submission and welcome comments and ideas you may have.

LETTER TO THE EDITOR.

NEWS UPDATE

△ Patch Outperforms Holter for Prolonged Heart Rhythm Tracking (2nd January, 2014)

Research by the Scripps Translational Science Institute (STSI) has found that a small adhesive wireless device worn on the chest for up to two weeks does a better job detecting abnormal and potentially dangerous heart rhythms than the Holter monitor, which is typically used for 24 hours and has been the standard of care for more than 50 years. [Read more](#)

△ Scientists Reduce Protein Crystal Damage, Improve Pharmaceutical Development (18th December, 2013)

[Click here to go at the top](#)

03-01-2014

Researchers have identified a method for protein crystallography that reduces damage to the protein crystal. The research team examined three different X-ray-based methods for solving protein structures and recommended one called "submicrometer line focusing" as the most promising for easing the dilemma. As its name suggests, the beam strikes the protein crystal with an area smaller than a micrometer, or smaller than one thousandth of a millimeter. The tiny impact area minimizes damage. [Read more](#)

△ **Erbix for RAS wild-type tumors** (31st December, 2013)

Merck KGaA today announced that the European Commission has approved the Type II variation to amend the Erbix® (cetuximab) product information, updating the indication for Erbix to the treatment of patients with RAS wild-type metastatic colorectal cancer (mCRC). The approval of the European Commission follows the positive opinion from the Committee for Medicinal Products for Human Use (CHMP) issued in November 2013 and is based on the totality of data emerging on the role of mCRC RAS tumor status in the benefit–risk profile of the drug. [Read more](#)

△ **Novel Osteoporosis Drug Could Change Treatment: Study** (2nd January, 2014)

A new medication for osteoporosis prompts the body to rebuild bone and could potentially strengthen the skeleton against fractures, researchers report. The experimental drug, romosozumab, frees the body's ability to stimulate bone production by blocking biochemical signals that naturally inhibit bone formation, explained Dr. Michael McClung, founding director of the Oregon Osteoporosis Center in Portland, Ore.

[Click here to go at the top](#)

03-01-2014

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△ **Study Supports Causal Role in Narcolepsy for Common Genetic Variant** (2nd January, 2014)

A new study conducted across Europe found an extraordinary association between narcolepsy and a specific gene variant related to the immune system. The modified genome-wide association study involved 1,261 people with narcolepsy, representing nearly 90 percent of European patients suffering from narcolepsy with cataplexy who have complete diagnostic work-up and DNA available. [Read more](#)

△ **Jumping DNA in Brain May Be Cause of Schizophrenia** (2nd January, 2014)

Retrotransposons, often dubbed "junk DNA," might play an important role in schizophrenia. In a study published today in the journal *Neuron*, a Japanese team revealed that LINE-1 retrotransposons are abnormally abundant in the schizophrenia brain, modify the expression of genes related to schizophrenia during brain development, and may be one of the causes of schizophrenia. [Read more](#)

△ **Chinese Herbal Compound Relieves Inflammatory, Neuropathic Pain** (2nd January, 2014)

A compound derived from a traditional Chinese herbal medicine has been found effective at alleviating pain, pointing the way to a new non addictive analgesic for acute inflammatory and nerve pain, according to UC Irvine pharmacology researchers. Working with Chinese scientists, Olivier Civelli and his UC Irvine colleagues isolated a compound called dehydrocorybulbine (DHCB) from the roots of the *Corydalis yanhusuo* plant. In tests on rodents, DHCB proved to diminish both inflammatory pain, which

[Click here to go at the top](#)

03-01-2014

is associated with tissue damage and the infiltration of immune cells, and injury-induced neuropathic pain, which is caused by damage to the nervous system. [Read more](#)

HEALTH AWARENESS

IMPROVING PATIENT COMPLIANCE AND PATIENT MONITORING

Patient compliance is the extent to which the actual behaviour of patient coincides with medical advice and instruction. It may be complete, partial erratic, nil or there may be over compliance.

To make a diagnosis and prescribe evidence based effective treatment is satisfactory experience for doctor but they assume that patient will great fully or accurately do what they are told i.e. obtain the medicine and consume it as instructed. This assumption is wrong, Because...

1.The rate of nonpresentation of prescription is around 5% but 20% or even more in elderly people where lack of money to paid for the medicine is not the cause . This is due to the lack of motivation.

[Click here to go at the top](#)

03-01-2014

2. Having obtained the medicine 25-50% patient either fail to follow the prescription to a significant extent or they don't take it.

Non-compliance may occur because-

1. Patient has not understood the instruction. 2. Understood the instruction but fail to follow it.

Over compliance:-

Patient up to 20% may take more drug than it prescribe even titrated the dose by 50%. The condition is called over compliance.

Factor for poor compliance:-

1. Frequency & complexity of drug regimen-Many studies show that compliance may inhibited by polypharmacy i.e. more than 3 drugs to be taken concurrently or more than 3 drugs taking occasions in a day.
2. Unintentional non-compliance i.e. forgetfulness.
3. Intelligent or will full non-compliance i.e. patient decided that not to take the drug or they do not like the drugs in specific interval (2-3 days) or during holidays.
4. Lack of information: Only oral instruction is not enough. 1/3 of the patients have been found unable to recall the information immediately or leaving the consulting room. Proper labeling of the container is essential as well as patient friendly information leaflets which are increasingly available via doctor and pharmacist and as package insert.

03-01-2014

5. Poor patient doctor relationship and lack of motivation: To take medicine as instructed offer major challenge to the prescribers whose diagnosis and prescription may be perfect. The best way to motivate patients for better compliance to cultivate patient doctors relationship. Doctors cannot be accepted by all the patient but it is a great help if they make the effort to understand how individual patient must be feeling about their illness and their treatment i.e. to empathies with the patient.

This is not always easy but its achievement is the action of true professionalism and indeed is the part of professional duty.

Suggestion to doctors to enhance patient compliance.

1. Make good patient partnership and give opportunity to ask question .Prescribe doses number of drugs with good regimen adjusted to fit patient life style.
2. Provide oral and written instruction for better understanding.
3. Use patient friendly packaging i.e. calendar pack.
4. See the patient regularly that patient feels doctor has interest.
5. Use computer generated reminder for repeat prescription.
- 6 Patient should not be ignored.
7. Prescribe accurately.

Role of pharmacist:

Take patient history if any side effect is there.

Along with drug-drug interaction and drug-food interaction.

Whether patient already in other therapy.

03-01-2014

How to improve patient monitoring?

For better patient monitoring following points should be considered-

1. At first take complete history of the patient i.e. disease, physical condition, psychological factors etc.
2. Take complete medication history of the patient.
3. Improve patient doctor professional bonding.
4. Provide motivation towards treatment i.e. correct timing of medicine, correct technique to take the medicine etc.
5. Provide proper instruction about the consumption of the medicine.
6. Instruction should be given verbally and by written.
7. Self commitment of pharmacist and doctor towards its job roll is very important.
8. Increase the frequency of appointment with the patient.
9. Improve regularity and punctuality.

-Samrat Bose
Assistant Professor
GNIPST

03-01-2014

DISEASE OUTBREAK NEWS

△ **Middle East respiratory syndrome coronavirus (MERS-CoV)** (27th December, 2013)

On 20 December 2013, WHO has been informed of four additional laboratory-confirmed cases of Middle East Respiratory Syndrome coronavirus (MERS-CoV) in Saudi Arabia. [Read more](#)

FORTHCOMING EVENTS

△ The 2nd Pharm. Tech IAPST International Conference on "New insights into diseases and recent therapeutic approaches" from 17th to 19th January 2014 in Kolkata, India. [Read more](#)

△ International Conference on "Chemistry - Frontiers & Challenges" will be held in PSGR Krishnammal College for Women from February 5th - 7th 2014. [Read more](#)

DRUGS UPDATES

△ **FDA approves "Tretten" to treat rare genetic clotting disorder** (23rd December, 2013)

The U.S. Food and Drug Administration today approved Tretten, Coagulation Factor XIII A-Subunit (Recombinant), the first recombinant product for use in the routine prevention of bleeding in adults and children who have a rare clotting disorder, known as congenital Factor XIII A-subunit deficiency. [Read more](#)

[Click here to go at the top](#)

03-01-2014

CAMPUS NEWS

△ B.Pharm 3rd year won the GNIPST Football Champions trophy, 2013. B.Pharm 3rd year won the final match 1-0 against B.Pharm 2nd year. Deep Chakraborty was the only scorer of the final.

△ Students of GNIPST organized pre puja celebration programme, 'Saaranya' on 7th October, 2013 in college Auditorium.

△ GNIPST organized a garment distribution programme on 28th September, 2013 at Dakshineswar Kali Temple and Adyapith, Kolkata. On this remarkable event about hundred people have received garments. More than hundred students and most of the faculties participated on that day with lot of enthusiasm.

△ GNIPST celebrated **World Heart Day (29th September)** and **Pharmacist's Day (25th September)** on 25th and 26th September, 2013 in GNIPST Auditorium. A seminar on 'Violence against woman' and 'female foeticide' was held on GNIPST Auditorium on 25th September organized by JABALA Action Research Organization. On 26th September an intra-college Oral and Poster presentation competition related to World Pharmacist's day and Heart day was held in GNIPST. Ms. Purbali Chakraborty of B.Pharm 4th year won the first prize in Oral Presentation. The winner of Poster presentation was the group of Ms. Utsa Sinha, Mr. Koushik Saha and Mr. Niladri Banerjee (B.Pharm 4th year). A good number of

[Click here to go at the top](#)

03-01-2014

students have participated in both the competition with their valuable views.

STUDENTS' SECTION

❖ WHO CAN ANSWER FIRST????

- ✓ *Which famous Indian was died in Mont Blank in 24th January, 1966?*
- ✓ *Which organization was founded by Henri Durant in 1863?*

Answer of Previous Issue's Questions:

A) **Virus** B) *Prion*

Identify them



Answer of Previous Issue's Image:

P. Higgs and F.Englert

- *Send your thoughts/ Quiz/Puzzles/games/write-ups or any other*

[Click here to go at the top](#)

03-01-2014

contributions for Students' Section & answers of this Section at gnipstbulletin@gmail.com

EDITOR'S NOTE

I am proud to publish the 3rd issue of 31st Volume of **GNIPST BULLETIN**. GNIPST BULLETIN now connected globally through *facebook account 'GNIPST bulletin'*

I want to convey my thanks to all the GNIPST members and the readers for their valuable comments, encouragement and supports.

I am thankful to **Dr. Abhijit Sengupta**, Director of GNIPST for his valuable advice and encouragement. Special thanks to **Dr. Prerona Saha** and **Mr. Debabrata Ghosh Dastidar** for their kind co-operation and technical supports. I am thankful to **Mr. Samrat Bose** for his contribution to this issue's **Health awareness** section. An important part of the improvement of the bulletin is the contribution of the readers. You are invited to send in your write ups, notes, critiques or any kind of contribution for the forthcoming special and regular issue.

Wish you all a **happy new year 2014**.

ARCHIVE

△ **Teacher's day** was celebrated on 5th September, 2013 by the students of GNIPST in GNIPST Auditorium.

[Click here to go at the top](#)

03-01-2014

△ *Azalea (exotic flower)* , the fresher welcome programme for newcomers of GNIPST in the session 2013-14 was held on 8th August in GNIPST Auditorium.

△ One day seminar cum teachers' development programme for school teachers on the theme of "Recent Trends of Life Sciences in Higher Education" organized by GNIPST held on 29th June, 2013 at GNIPST auditorium. The programme was inaugurated by Prof . Asit Guha, Director of JIS Group, Mr. U.S. Mukherjee, Dy Director of JIS Group and Dr. Abhijit Sengupta, Director cum Principal of GNIPST with lamp lighting. The programme started with an opening song performed by the B.Pharm students of this institute. The seminar consists of a series of lectures, video presentations and poster session. On the pre lunch session 4 lectures were given by Dr. Lopamudra Dutta, Mr. Debabrata Ghosh Dastidar, Ms. Swati Nandy and Ms. Tamalika Chakraborty respectively. On their presentation the speakers enlighten the recent development of Pharmacy, Genetics and Microbiology and their correlation with Life Sciences. On the post lunch session, Ms. Saini Setua and Ms. Sanchari Bhattacharjee explained the recent development and career opportunities in Biotechnology and Hospital Management. The programme was concluded with valedictory session and certificate distribution.

About 50 Higher secondary school teachers from different schools of Kolkata and North& South 24 Parganas district of West Bengal participated in this programme. A good interactive session between participants and speakers was observed in the seminar. The seminar was a great success with the effort of faculties, staffs and students of our Institute. It was a unique discussion platform for school teachers and professional of the emerging and newer branches of Life Science.

[Click here to go at the top](#)

03-01-2014

- The following B.Pharm. final year students have qualified, GPAT-2013. We congratulate them all.

Amanpreet Kaur, Mohua Das,

Sourav Bagchi, Uddipta Ghosh Dastidar,

Siddarth Shah, Prapti Chakraborty,

Subhradip Roychoudhury, Soumyajit Das,

Mounomukhar Bhattacharjee.

- **GNIPST is now approved by AICTE and affiliated to WBUT for conducting the two years post graduate course (M.Pharm) in PHARMACEUTICS. The approved number of seat is 18.**

- The general body meeting of APTI, Bengal Branch has been conducted at GNIPST on 15th June, 2012. The program started with a nice presentation by Dr. Pulok Kr. Mukherjee, School of Natural Products, JU on the skill to write a good manuscript for publication in impact journals. It was followed by nearly two hour long discussion among more than thirty participants on different aspects of pharmacy education. Five nonmember participants applied for membership on that very day.
- GNIPST is now approved by AICTE and affiliated to WBUT for conducting the two years' post graduate course (M.Pharm) in PHARMACOLOGY. The approved number of seat is 18.
- The number of seats in B.Pharm. has been increased from 60 to 120.

03-01-2014

- AICTE has sanctioned a release of grant under Research Promotion Scheme (RPS) during the financial year 2012-13 to GNIPST as per the details below:
 - a. *Beneficiary Institution:* Guru Nanak Institution of Pharmaceutical Science & Technology.
 - b. *Principal Investigator:* Dr. Lopamudra Dutta.
 - c. *Grant-in-aid sanctioned:* Rs. 16,25,000/- only
 - d. *Approved duration:* 3 years
 - e. *Title of the project:* Screening and identification of potential medicinal plant of Purulia & Bankura districts of West Bengal with respect to diseases such as diabetes, rheumatism, Jaundice, hypertension and developing biotechnological tools for enhancing bioactive molecules in these plants.