

GNIPST BULLETIN 2013

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Vision

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







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TECHNOLOGY



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 29th 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

△Diets low in polyunsaturated fatty acids may be a problem for youngsters (13th September, 2013)

In the first study to closely examine the polyunsaturated fatty acid (PUFA) intake among U.S. children under the age of 5, Sarah Keim, PhD, principal investigator in the Center for Biobehavioral Health at The Research Institute at Nationwide Children's Hospital, has found what might be a troubling deficit in the diet of many youngsters. **Read more**

△Researchers identify switch that controls growth of most aggressive brain tumor cells (20th September, 2013)



Researchers at UT Southwestern Medical Center have identified a cellular switch that potentially can be turned off and on to slow down, and eventually inhibit the growth of the most commonly diagnosed and aggressive malignant brain tumor. Findings of their investigation show that the protein RIP1 acts as a mediator of brain tumor cell survival, either protecting or destroying cells. **Read more**

△Prostacyclin Analogs and PDE 5 Inhibitors synergistically stimulate ATP release from human RBCs (20th September, 2013)

Researchers at Saint Louis University School of Medicine have discovered a novel interaction between prostacyclin (PGI2) analogs and phosphodiesterase 5 (PDE5) inhibitors, two groups of drugs used in the treatment of pulmonary arterial hypertension (PAH). They found that, in combination, these drugs stimulate enhanced release of a potent vasodilator adenosine triphosphate (ATP) from human red blood cells (RBCs). Read more

△Proteins identified that may help brain tumors spread (20th September, 2013)

Scientists at the University of Alabama at Birmingham have identified a molecular pathway that seems to contribute to the ability of malignant glioma cells in a brain tumor to spread and invade previously healthy brain tissue. **Read more**

△ Digoxin use associated with higher risk of death for heart failure patients (20th September, 2013)

Digoxin, a drug commonly used to treat heart conditions, was associated with a 72 percent higher rate of death among adults with



newly diagnosed systolic heart failure, according to a Kaiser Permanente study that appears in the current online issue of *Circulation*. These findings suggest that the use of digoxin should be reevaluated for the treatment of systolic heart failure in contemporary clinical practice. **Read more**

△Imaging technique detects pediatric liver disease without needle biopsy (20th September, 2013)

A new, non-invasive imaging technique, magnetic resonance elastography (MRE), can now help physicians accurately detect fibrosis (scarring) in children with chronic liver disease, a growing problem due in part to increasing obesity rates. **Read more**

△Blood 'Marker' may predict diabetes risk in older women (20th September, 2013)

Older women's age and lifestyle habits may be associated with levels of a protein possibly linked with type 2 diabetes risk, researchers say. There is growing evidence that relatively low levels of the protein called sex hormone binding globulin (SHBG) can indicate an increased risk of type 2 diabetes years in advance. **Read more**

△FDA finalizes new system to identify medical devices (20th September, 2013)

U.S. Food and Drug Administration announced a final rule for the unique device identification system (UDI) that, once implemented, will provide a consistent way to identify medical devices. The UDI system has the potential to improve the quality of information in medical device adverse events reports, which will help the FDA



identify product problems more quickly, better target recalls, and improve patient safety. The FDA has worked closely with industry, the clinical community and patient and consumer groups in the development of this rule. **Read more**

HEALTH AWARENESS

Autism spectrum Disorder -Some facts

Autism spectrum disorders (ASD) are a group of complex brain development disorders. This umbrella term covers conditions such as autism, childhood disintegrative disorder and Asperger syndrome. These disorders are characterized by difficulties in social interaction and communication and a restricted and repetitive repertoire of interests and activities.

Recent reviews estimate a global median prevalence of 62/10 000, that is one child in 160 has an autism spectrum disorder. This estimate represents an average figure, and reported prevalence varies substantially across studies. Some recent studies have, however, reported rates that are substantially higher.

The identification of an autism spectrum disorder is difficult before the age of about 12 months but diagnosis is ordinarily possible by the age of two years. Characteristic features of the onset include delay in the development or temporary regression in language and social skills and repetitive stereotyped patterns of behavior.

Parents have an essential role in providing support to children with autism. They can help to ensure access to health services and



education, and offer the affection and care needed as the child grows up. Recently, it has been shown that parents can also successfully deliver psychosocial and behavioral treatments to their own children.

Scientific evidence suggests that various factors, both genetic and environmental, contribute to the onset of autism spectrum disorders by influencing early brain development. Available epidemiological data show that there is no evidence of a link between measlesmumps-rubella (MMR) vaccine and autism spectrum disorders. Previous studies suggesting a causal link were found to be seriously flawed. There is also no evidence to suggest that any other childhood vaccine may increase the risk of autism spectrum disorders. In addition, evidence reviews commissioned by WHO concluded that there was no association between the use of preservatives such as thiomersal that contains ethyl mercury in vaccines and autism spectrum disorders.

DISEASE OUTBREAK NEWS

△Middle East respiratory syndrome coronavirus (MERS-CoV) (20th September, 2013)

Two patients earlier reported as laboratory-confirmed with Middle East respiratory syndrome coronavirus (MERS-CoV) infection in Italy in the Disease Outbreak News on 2 June 2013 are being reclassified as probable cases. Read more



FORTHCOMING EVENTS

- △ World Heart Day and Pharmacist's Day will be celebrated on 26th September in GNIPST.
- △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

DRUGS UPDATES

△FDA approves Abraxane for late-stage pancreatic cancer (6th September, 2013)

The U.S. Food and Drug Administration today expanded the approved uses of Abraxane (paclitaxel protein-bound particles for injectable suspension, albumin-bound) to treat patients with latestage (metastatic) pancreatic cancer. Read more

\triangle CAMPUS NEWS

- △GNIPST has reached the semifinal of Gulabi Devi Memorial Football Tournament, organized by Budge Budge Institute of Technology. GNIPST won two consecutive matches against CIPT and Seacom Engineering college football team.
- \triangle Teacher's day was celebrated on 5th September, 2013 by the students of GNIPST in GNIPST Auditorium.



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



STUDENTS' SECTION

* WHO CAN ANSWER FIRST????

- Which natural compound was first chemically synthesized by R. Woodward and W. Doering?
- ✓ Which alkaloid was initially known as Lerocristine?

Answer of Previous Issue's Questions:

- A) Polymerase Chain Reaction B)NMR
- Send your thoughts/ Quíz/Puzzles/games/wríteups or any other contributions for Students' Section& answers of this Section atgnipstbulletin@gmail.com

EDITOR'S NOTE

I am proud to publish the 1st issue of 29th 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.

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.

ARCHIVE

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

Amanpreet Kaur, Mohua Das,

SouravBagchi, Uddipta Ghosh Dastidar,

Siddarth Shah, PraptiChakraborty,

SubhradipRoychoudhury, Soumyajit Das,

Mounomukhar Bhattacharjee.

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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.
- AICTE has sanctioned a release of grant under Research Promotion Scheme (RPS) during the financial year 2012-13to GNIPST as per the details below:
 - a. Beneficiary Institution: Guru Nanak Institution of Pharmaceutical Science & Technology.
 - b. Principal Investigator: Dr. LopamudraDutta.
 - c. Grant-in-aid sanctioned:Rs. 16,25000/- 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.