

PHARMA HIGHLIGHTS

Seminar Series in the Department of Pharmacy

The Department of Pharmacy, BRAC University has hosted a number of seminars in Spring 2015 session at the BRAC University Auditorium. Highly recognized personnel from both pharmaceutical industries and academia were invited as speakers in the seminars. The list of seminars is given below:

- A seminar on "Situation of Food Adulteration in Bangladesh (Part-II)" was organized by BRAC University Pharma Society on 29th April, 2015 at 11:00 am. The seminar was presented by Professor A.B.M Faroque, ex-Dean and Professor of Department of Pharmacy, University of Dhaka. The seminar was mainly conducted to raise awareness among people about the prevalence and seriousness of food adulteration in Bangladesh that is massively responsible for causing many severe diseases, decreasing life expectancy and increasing the mortality rate.
- The Department of organized a and Competency Pharmaceutical Mr. Muin Uddin Affairs, Sanofi multinational the speaker at the
- The BRAC (BUPS) organized 2015 at 10 a.m. on Guidelines for Ishtiaq Ahmed, Ispahani Alliance



Pharmacy, BRAC University seminar on 'Key Performance Indicators for a Industry' on May 10, 2015. Mazumder, Director Industrial Bangladesh Limited, a leading pharmaceutical company was seminar.

University Pharma Society another seminar on 12th May, the topic "Global Regulatory Pharmaceuticals" by Mr. Head of Technical Operations, Pharmaceutical Ltd.

Industrial Visit to Incepta Pharmaceuticals Limited

he Department of Pharmacy, on 30th April, 2015 to Jirabo Sixteen students along with Ibn Morshed, Rezwana Nasrin for the visit. At Incepta, the tour Incepta in becoming the second country and an overview of the site with sumptuous lunch and feedback Operation, Mr. Mahbubul Karim.



BRAC University went to an industrial visit plant of Incepta Pharmaceuticals Limited. three faculty members named Mahmud Tareq Chowdhury and Ashis Kumar Podder went started with a presentation on the journey of leading pharmaceutical company of the with six building as six units. The visit ended session with the Director of Technical Overall, the visit was a wonderful learning

experience of how the students will carry out their responsibilities as a pharmacist to serve the health sector in future.

Intra-articular Injection of Corticosteroid does not Prove to be Beneficial before Physical Therapy in treating Knee Osteoarthritis

Steoarthritis is a common disabling condition particularly affecting the aging population and most often observed in the knee joint. Various lines of treatment are being used worldwide to face this condition including physical therapy, different types of exercise and weight loss that can reduce pain and disability and improve physical function. Intra-articular injection of corticosteroid has been found to be effective for symptomatic relief of pain with less chance of adverse effects. However, an article published in NEJM Journal Watch mentions that intraarticular corticosteroid injection before physical therapy could not actually do much to improve the condition of patients. A study carried out on 100 Danish aged patients of mean age of 63 with clinically proved knee osteoarthritis were given intra-articular injection of methyl prednisolone (40mg) along with lidocaine or saline/lidocaine of equal volumes. Then the patients took part in supervised exercise programs thrice a week for 12 weeks with 80% attendance for all. The results showed no drastic improvement in them although relief in pain was observed. This finding can be a very new and useful approach to the treatment of this disabling knee osteoarthritis and can improve lives of many suffering from it. **Source:** http://www.jwatch.org/na37601/2015/04/30/no-benefit-intra-articular-corticosteroids-before-physical

- Nausheen Syeara

Possible Culprit for Schizophrenia Discovered–Mutation of Arp2/3 Gene

The three unrelated biological changes most commonly blamed for causing schizophrenia could finally be related. Schizophrenia, a disease that occurs in the late adolescence, is a debilitating mental disorder that changes the way people think, act and perceive reality leading to strange behavior and hallucination. Schizophrenic patients share three common phenotypes– fewer dendritic spines, hyperactive neurones and oversecretion of dopamine which the researchers initially claimed did not make sense together at the biological level. Research team led by Scott Soderling and co-researcher Hwan Kim, discovered that the phenotypes are "functionally

interrelated" due to а mutation of gene Arp2/3 gene responsible for controlling synapse formation. Upon testing their hypothesis on engineered mice with the absence of Arp2/3 gene, it was observed that they



behaved similarly to schizophrenic patients, showing all three symptoms. Successfully, the researchers found how the phenotypes are interrelated at a molecular level. **Source:** http://snip.ly/S3z3#http://www.sciencealert.com/scientists-have-found-the-mostlikely-culprit-so-far-for-schizophrenia

- Zainab Syed Ahmed

Biological Drugs for Rheumatoid Arthritis Associated with Infection Risk



atients undergoing treatments for rheumatoid arthritis have a major concern for serious infections. According to a study by Lancet, both high and low doses of biological drugs taken for

rheumatoid arthritis are related with higher risk for severe infections. The study was conducted by using traditional and network meta-analyses where the researchers conducted several results of more than 100 random trials. The trials were carried out with 42,000 patients and those were compared to any nine biological drugs which were either taken with or without disease modifying anti-rheumatic drugs. The researchers used disease modifying antirheumatic disease as the reference for the study. The result of the study showed that the number of infections increased by 6 per 1000 patients per year for standard dose of biological therapy while in case of high dose by 17 per 1000 patients of biological drugs and by 55 per 1000 patients for combination biological therapy. Source: http://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2814%2961704-- Nabila Morshed 9/abstract

Liberia Has Been Declared Free of Ebola

www.ord Health Organization officials announced that the West African country of Liberia is officially free of Ebola. There have been no new cases reported in 42 days, which is the equivalent of two



incubation periods for this devastating disease. Still, the damage brought by the worst Ebola outbreak in history leaves "a scar on the conscience of the world," as told to the *Associated Press* by Liberian President Ellen Johnson Sirleaf. WHO official also noted that they will not let their guard down since 18 new cases were reported in the two other neighboring countries Sierra Leone and Guinea. These two countries were hit hardest by the deadly virus. According to WHO, that was the lowest number of cases reported in a week so far this year where else at least 11,005 people have died since the Ebola outbreak in West Africa began more than a year ago.

Source: http://www.drugs.com/news/health-highlights-may-8-2015-56740.html

-Fabiha Tasnim

Thoughts about TAF over TDF for HIV treatment

enofovir (TFV) is a nucleotide analogue HIV-1 reverse transcriptase inhibitor (NRTI) meaning that it works by inhibiting viral replication. Presently available therapies for HIV has lead to reduced patient mortality. Tenofovir disoproxil fumarate (TDF) is a firstgeneration prodrug of TFV which undergoes rapid metabolism in the plasma after oral administration. It is preferred as a component NRTI backbone for HIV-1positive treatment-naive patients. It is distributed intracellularly where it is transformed into its active form TFV diphosphate (TFV-DP). Relative to TDF, tenofovir alafenamide (TAF) is another prodrug which is more stable in plasma and is predominantly metabolized intracellularly. This intracellular drug metabolism results in higher intracellular levels of the active metabolite TFV-DP and lower plasma levels of TFV. Nausea was more common in TAF treated patients than in those receiving TDF in a particular study. Although TDF is generally well tolerated, it is associated with greater reductions in bone-mineral density which causes bones to fracture easily than other reverse transcriptase inhibitors and occasionally causes significant renal toxicity leading to kidney failure. In the future, TAF will likely become the preferred version of tenofovir. Source: http://www.jwatch.org/na37667/2015/05/05/tenofovir-alafenamide-justdifferent-or-better?query=etoc_jwid

-Labiba Mahmud

