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MESSAGE FROM THE DESK OF THE EDITOR

The successful publication of the third issue of volume 2 of 'Pharma Innovations' proves its grand success in maintaining a uniform quality of published articles and scientific writings on a trimonthly basis. The contents of this e-magazine are very much generic in true sense and are quite at par with the progress of the pharma world. With the constant hard work and tireless efforts of the Editorial Committee members and associated others, the approach of the Pharma Innovations is not only very much dynamic, but also very much progressive in terms of thinking and writing.

I wish the team of students and teachers associated with Pharma Innovations a grand success.

DR. R. MAZUMDER
PROFESSOR AND DEAN
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MESSAGE FROM THE DESK OF THE ASSOCIATE EDITOR

On behalf of the editorial board members, it is with great pleasure and honor that I welcome you to the third issue of 2017 “Pharma Innovations”. “Pharma Innovations” is a magazine has a strong emphasis on motivating the faculty as well as students towards their research and knowledge in health, medicines and pharmacy. This open minded stance toward the scope of the magazine allows to overcome knowledge fragmentation and the integration between apparently different topics providing the reader with a global view on the topic of interest.

DR SANJITA DAS
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FACULTY FORUM

EFFECT OF USE OF SOCIAL MEDIA ON CNS

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The average teenager spends up to nine hours per day on social media. Social media is the new tribal fire. It is another kind of addiction having no age bar. Facebook, Instagram, Snapchat, Twitter and many more platforms allow people of all backgrounds to have a voice and connect in the virtual world. The present study highlights the effect of use of social media on brain parts and its normal physiology. People who spend more than two hours per day on social media have a higher tendency to report a mental illness. Even without a mental health disorder, these platforms can make anyone feel negatively about themselves. A human is an organism; the surroundings and conditions a person lives and operates in is his or her environment. The Ventral Tegmental Area (VTA) of the brain monitors social needs by releases dopamine when we achieve social success and inspiring neurochemical deficits when we don't. Tragically, social media is not the VTA's friend. The hippocampus (a memory area in the brain) continuously compares the external world to the brain's core belief of how the world should be. When there is a discrepancy between the external world and the brain's core belief, a threat occurs. Social media plays an important role in this field. Its chronic use gives rise to stress. It leads to chronically elevated blood glucose levels which become insulin resistance, diabetes, obesity and various medical and psychological disorders that have been reliably associated with these conditions. To further complicate matters, primate biology constructed structural brain dynamics to suspend cortical functions, such as thinking, when key subcortical processes, such as the stress response swing into action. The present study concludes that time is the most precious human resource; don't waste it on Twitter wars or Facebook feuds.

"HEALTH AI" - A GROWING FIELD CONNECTING MEDICINE

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Artificial Intelligence (AI) is making its way into the realm of clinical trials. AI-based models are helping trial design, AI-based techniques are being used for patient recruitment, and AI-based monitoring systems aim to boost study adherence and decrease dropout rates.

AI covers monitoring drug adherence, pre-emptive risk monitoring, decision-making, diagnostics, and process optimization, areas where the technology is expected to make an impact. By the middle of 2020, the AI market for healthcare is expected to top \$35 billion, and big names such as Microsoft, Google, and IBM are already collaborating with top universities to further AI. "AI is very much a work in progress, yet it holds much promise for the future of healthcare and drug development."

AI potentially boost the success rate of clinical trials by:

- Efficiently measuring biomarkers that reflect the effectiveness of the drug being tested.
- Identifying and characterizing patient subpopulations best suited for specific drugs. Less than a third of all phase II compounds advance to phase III, and one in three phase III trials fail-not because the drug is ineffective or dangerous, but because the trial lacks enough patients or the right kinds of patients.
- Start-ups, large corporations, regulatory bodies, and governments are all exploring and driving the use of AI for improving clinical trial design.
- Several areas showing the most real-world promise of AI for patients-
- AI-enabled systems might allow patients more access to and control over their personal data.
- Coaching via AI-based apps could occur before and during trials.

- AI could monitor individual patients' adherence to protocols continuously in real time.
- AI techniques could help guide patients to trials of which they may not have been aware.

The use of AI in precision-medicine approaches, such as applying technology to advance how efficiently and accurately professionals can diagnose, treat and manage neurological diseases, is promising. "AI can have a profound impact on improving patient monitoring before and during neurological trials."

There are three types of AI being deployed by life science businesses that can provide a framework for improving efficiencies. AI can support 1) Automation of business processes, 2) Gaining insight into data through data analysis, and 3) Making critical decisions based on the large volumes of data and thus impacting overall business through the big data analysis and engagement with the customers, patients, suppliers and employees. In the meantime, rigorous research and development is necessary to ensure the viability of these innovations.

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APPLICATION OF NANOROBOTICS FOR CANCER TREATMENT

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Nanorobotics is the developing technology. It manages producing machines or robots whose segment are at or near infinitesimal size of a nanometre (10⁻⁹ meters). More precisely, nanorobotics mentions the nano-technology engineering chastisement of scheming and construction of nanorobots, through device ranging in size from 0.110 micrometers and built up of molecular apparatuses. The term nanobots or nanoidshave also been used to define the devices under the research and development. It is ending up progressively significant in fields like designing, horticulture, development, microelectronics and human services. There are two essential sorts of nanobots; constructing agents and self-replicators. Constructing agents are basic cell-formed nanobots that can decipher particles or molecules of various sorts, and are constrained by explicit specific projects. Self-replicators are essentially constructing agents that are fit for copying themselves at an enormous, quick rate; it is this kind of duplication that guides the development of huge scale applications or sending of nanobots for largescale assignments. The use of nanotechnology in the field of medicinal services has gone under extraordinary consideration as of late. There are numerous medicines today that take a great deal time and are likewise over the top expensive. Option in contrast to those medicines could be nanotechnology, as speedier and less expensive medications can be created for deadly illnesses. As nanites are a lot littler than human tissues along these lines they make conceivable outcomes of treatment of malignancy. Malignancy is a gathering of illnesses including unusual cell development with the capability of spreading to different pieces of the body. Not all tumours are harmful; kind tumours don't spread to different pieces of the body. Potential signs and manifestations incorporate an irregularity, unusual dying, delayed hack, unexplained weight reduction and an adjustment in solid discharges. While these side effects may demonstrate malignancy, they may have other reason.

Malignant growth influenced cells structure a subset of neoplasm. A neoplasm or tumor is a gathering of cells that have experienced unregulated development and will regularly shape a mass or irregularity, however might be disseminated diffusely. Malignant growth can be effectively treated with current phases of therapeutic innovations and treatment instruments with the assistance of the nanorobotics. Decide the definitive factor to chances for a patient with malignant growth to endure is: the means by which prior it was analyzed; another significant angle to accomplish a fruitful treatment for patients is the advancement of proficient focused on medication conveyance to diminish the symptoms from chemotherapy. Disease treatment modalities utilizing plainly visible medication conveyance techniques like chemotherapy, warm treatment and to a degree radiotherapy have had high fix rates however are frequently joined by extreme symptoms. For example Chemotherapy utilizes synthetics, which specifically murder quickly jumping cells. In spite of the fact that a great deal of assortments of malignant growth show this element, solid cells like in hair, bone marrow and stomach related tract, are additionally lethally influenced. Ongoing leap forward in focused treatment for dangerous illnesses have prompted the innovation of atomic machines, called Nanorobots.

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STUDENT FORUM

DIABETES: KNOWLEDGE IS POWER IF YOU EARN IT

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We have to believe and make people convinced that a holistic approach can lead to the well defined framework of management of diabetes. For this target there is a need of constant updating of knowledge on all aspects with emphasis on preventive, primitive and curative aspects. Here authors wish to provide a brief note on the techniques and approaches required for knowledge updating that may enrich the readers for advocacy, as well as practice and spirit in their day to day life.

There is saying that "learning should follow de-learning". This means that any health care provider habituated in a typical approach to manage diabetes has to be willing to remove "older" ideas from his/her mindset first than only "new" concepts to get through. This is better said than done. This is probably the first step of updating oneself.

Last but not the least a discoverer made approach and mutual respect for all the dietary habits can harmonize healthy eating practice in diabetics. We can get the best of both world of our traditional belief and scientific knowledge for the higher compliance of any dietary advice.

STRENGTHENING PHARMACEUTICAL SYSTEM FOR PALLIATIVE CARE SERVICE: PLOTTING A MHEALTH APPLICATION FOR RURAL AND URBAN SETTING IN UGANDA

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Medicine availability is improving in sub-saharan Africa for palliative care services. There is a need to develop strong and sustainable pharmaceutical system to enhance the palliative care medicines some of which are controlled. An electronic application was implemented as palliative care service at two settings in Uganda: a rural hospital and a urban hospice. Improvements in all measures were identified at both sites. The health approach adopted was shown to improve the existing process for patient record management, pharmacy forecasting and supply programming and procurement and distribution of essential health commodities for palliative care services.

***“See you in Next
Edition”***

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