Biomedical Sciences Today
An open access peer reviewed journal
MDT Canada press
http://www.mdtcanada.ca/bmst.html

Editorial

Biomedical Sciences Today: a platform for presenting latest research results to the scientific community and beyond

Md Ashrafuzzaman[1], Chih-Yuan Tseng[2], Jack A. Tuszynski[3]
[1]Department of Biochemistry, College of Science, King Saud University, Riyadh, Saudi Arabia
[2]MDT Canada Inc., Edmonton, Alberta, Canada
[3]Department of Oncology, University of Alberta, Edmonton, Alberta, Canada
Contact us at bmst@mdtcanada.ca

Received 24 January 2015; Accepted 1 March 2015; Published 10 April 2015

Copyright © 2015 Md. Ashrafuzzaman, C.-Y. Tseng, J.A. Tuszynski. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

The biomedical sciences community has now blossomed into a diverse society of researchers whose backgrounds involve almost all disciplines in natural sciences, parts of social sciences and engineering and applied technologies. This great spectrum of knowledge calls for a platform where this community of scientists can fruitfully exchange ideas, strategies, approaches and techniques and, above all, document the results of the various types of fundamental and applied biomedical researches. Unfortunately, we have found an acute dearth of publishing outlets that could serve the above purpose completely. Two prestigious journals, Nature and Science, cover the subjects partially but the scopes are limited and access to these elite journals is virtually impossible for a vast majority of scientists. In our opinion, more open publishing platforms are badly needed today more than ever.

Interdisciplinary communications are required to help overcome the barriers between various academic discipline silos. A molecular biologist may detect biomarkers in biological systems but to address the various properties and roles of those markers it may require investigations of experts in such fields as biochemistry, biophysics and chemistry. Thus the completeness of such a research finding may be achieved by addressing structural and functional aspects as well as the biophysical, pharmacological and statistical properties of those markers at a systems level. Similarly, understanding the plant cell's nutritional intake is not any more a subject of studies of a plant biologist only; he/she needs help from a soil scientist, a biophysicist, and general biologists to investigate, in plant cells and elsewhere, the issue of the exchange and distribution of nutrients among various compartments within organisms. If we consider the general physiology research or drug design and formulation we also find it to be not only a medical scientist's job. A successful discovery in this area will crucially depend on a coordinated effort between medicinal chemists, medical scientists, clinicians, pharmaceutical scientists, physiologists, biophysicists, biochemists, bioinformaticians, biomedical engineers, social scientists, and others. To bring all these diverse groups of scientific minds together we need an interdisciplinary knowledge dissemination platform where the discussions and findings can be documented. Biomedical Sciences Today aims to provide a much-needed platform for such a diverse biomedical research community.

The process of publishing research results is considered to be hectic because of the commonly used blind peer-review process. Our platform is created not in order to judge certain findings submitted to our journal but to search for the suitability and rationality of those findings with respect to the community needs of today, for tomorrow and beyond. We also believe that information based on logic, facts and findings no matter how impressive or weak requires to be disseminated among the community of peers interested in the same field irrespective of where they live and work around the world. We, therefore, chose an open access platform, which will always offer free to access for all mankind.

In addition to publishing various topics from all aspects of biomedical sciences in conventional ways through an open access platform, our journal also aims to evolve its connections into a hub of social networks such as Facebook and Google+ that allows enthusiastic public who may have little knowledge in biomedical sciences to exchange ideas directly with authors and learn from experts. By posting latest findings and reviews in publicly available social networks, it allows biomedical research to be accessible not only to the scientific community but all who are interested in it. Instant information exchange under each post allows everyone, even those not trained in this field, to acquire access to the most current knowledge. The interested public will be able to find out easily and quickly who, what and where is involved in biomedical sciences today. We expect Biomedical Sciences Today to become an open access platform for everyone through integrating conventional open access publishing approaches and modern social networks. Our philosophy is based on the premise that everyone has the right of access to knowledge and can be a teacher and mentor to others.

Acknowledgement
M.A acknowledges the funding support by NSTIP Strategic Technologies Programs (Grant no. 12-MED2670-02) in the Kingdom of Saudi Arabia. J.A.T acknowledges the Project PharmaMatrix (sponsored by the Alberta Cancer foundation and the Allard Foundation).

Biomedical Sciences Today
An open access peer reviewed journal
MDT Canada press
http://www.mdtcanada.ca/bmst.html

Authors' Biosketches

Prof. Ashrafuzzaman

Dr. Ashrafuzzaman works in the domain of biophysics. Stability of the structures of biomolecules, their independent random existence, coexistence with other molecules <complex biological structures> in biological environment, especially in cellular environment (cell membrane, cellular interior and exterior regions where various proteins exist) are often energy- based biophysical problems. Going beyond simple biochemical approaches we apply various biophysical techniques to not just observe things or measure the effects but also try to understand the hidden causes of responses, underlying mechanisms and aftermath effects using response theory based science. We apply all three common methodologies of investigations: theory, experiments and computation to penetrate dip into the problems. Our techniques are dedicated mainly to first finding the equilibrium structures, calculating the energies corresponding to specific structures, then raising the understanding of phenomenological structural transitions between various energy landscapes that represent various functional aspects. For more contact at mashrafuzzaman@ksu.edu.sa.

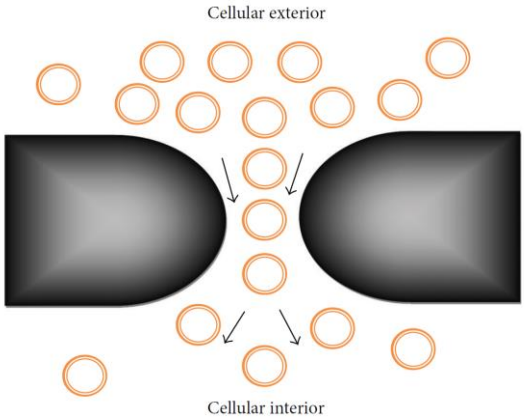
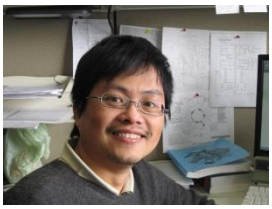


Figure demonstrates the cell membrane diffusion of nanoparticles that is explored biophysically and biochemically in Dr. Ashrafuzzaman's laboratory.

Dr. Tseng



His laboratory is focusing on foundation and applications of entropic inference in biomedical sciences. Particularly, his research interests include foundation of theoretical statistical mechanics, protein folding dynamics, biological signal analysis, aptamer design, drug discovery methods in cancer, pharmacokinetic and pharmacodynamic modelling and simulation. He is co-founder of MDT Canada Inc. For more visit www.mdtcanada.ca or contact at rtseng@mdtcanada.ca.

Prof. Tuszynski

Dr. Tuszynski is a Fellow of the National Institute for Nanotechnology of Canada. He is an Allard Chair and Professor in the Department of Oncology at the University of Alberta and a Professor in the Department of Physics. Professor Jack Tuszynski received his M.Sc. with distinction in Physics from the University of Poznan (Poland). He received his PhD in Physics from the University of Calgary. He has published over 360 peer-reviewed papers, over 50 conference proceedings, 10 book chapters and 10 books. Dr. Jack Tuszynski heads a multi-disciplinary team creating "designer drugs" for cancer chemotherapy using computational biophysics methods. For more please contact at jackt@ualberta.ca.