

Editor Note – Biochemistry & Analytical Biochemistry

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Editor Note

Biochemistry is the study of structures, functions and interactions of biomolecules, such as carbohydrates, nucleic acids, proteins, lipids, etc. and their metabolisms. Advancements in biochemistry helps in the advancement of different fields like agriculture, medicine, nutrition, etc., which are directly related to it. Combination of biochemical techniques with techniques and ideas of genetics, molecular biology and biophysics had facilitated the discoveries and inventions in the field of biochemistry. Analytical chemistry is focused on the creation of new measurement techniques and tools, experimental designs, chemometrics, etc., playing an important role in opening new avenues in biochemistry. Recently the research in biochemistry reached to molecular level and now the terms molecular biology and biochemistry have become nearly interchangeable.

Journal of Biochemistry & Analytical Biochemistry is an Open Access scholarly journal, and recently published volume 5 issue 2. In this current issue articles in diverse disciplines of Biochemistry were published ranging from leaf extracts to Biomarkers, which provides a platform for the researchers of distant related disciplines to imbibe latest advancements that helps in their research progress.

Acetylcholinesterase is one of the most targeted enzymes for insecticides belonging to organophosphorus and carbamate group, as they interfere with the passage of nerve impulses in the pests. To mitigate the negative effects of the synthetic pesticides, Anne et al. succeeded *in vitro* synthesis of compounds having anti-acetylcholinesterase activity from dichloromethane leaf extracts of *Carphalea glaucescens* [1].

To understand the biological pathways, there is a need to understand the mechanisms of molecular interactions. Patel et al. studied the interaction between pyrrolidinium based ionic liquid and bovine serum albumin by using techniques like fluorescence spectroscopy, fluorescence spectroscopy, FTIR Spectroscopy, Molecular docking etc [2].

Due to increase in pollution heavy metal concentration has increased to alarming levels in the environment, which created the necessity for studying the effect of heavy metals on living tissues and systems. El-Shafei studied the effect of hexavalent chromium in tissues of a freshwater fish and concluded that fishes with higher accumulation of the metal showed abnormal behaviour indicating a chance of neurotoxicity[3].

Smoking has many negative effects on health but their effects on blood parameters were studied by very few scientists. Singh studied

effect of cigarette smoking on serum homocysteine and vitamin B12 level. He concluded that the concentration of homocysteine is more in the serum of chronic smokers than in the serum of non-smokers while it was reverse in the case of vitamin B12 [4].

In published research articles like Panneerselvam et al. studied molecular mechanisms of post-menopausal obesity, Sharma et al. investigated the effect of Vitex negundo on acetaminophen and galactosamine induced hepatotoxicity, Liu et al. validated the anti-epileptic drug efficacy, Mala Singh studied effect of interleukin 1- α in vitiligo patients gave critical conclusions [5].

Many critical topics like Biomarkers for lung cancer, corneal wound healing, male infertility, thoracic outlet syndrome, genomics driven drug discovery approaches and hepatocellular carcinoma were discussed by Fahrman et al., Zhang et al., Maha et al., Jinu et al., Valayil et al. and Yeliz et al., respectively [6].

Still there is a long way to go to solve the mysterious problems in the biochemistry. Hope our work in bringing the most advanced scientific revelations on a platform may help some of the most advanced minds in this discipline.

References

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