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Editorial

Dear Researchers and Readers

Amidst the COVID-19 pandemic and the unprecedented lockdown so as to contain the spread of the novel coronavirus, academic activities have been confined to homes with e-learning initiatives and technology driven education being adopted. It is understandable that initial confinement led to worries and anxieties but gradually we adapted to the ‘New Normal’, as it is called now, and would be for a pretty long time to come. Despite, the prevailing situation, the number of manuscripts received during this period for consideration of publication in The NEHU Journal was very encouraging. I must place on record the time and effort given by the reviewers and prompt action of the authors in revising the manuscripts. The editorial team was always there to assist whenever I needed. As the Journal publishes articles of multidisciplinary nature, the present volume too has a mix of articles drawn from Life Sciences, Physical Sciences, Human & Environmental Sciences and Social Sciences. The present volume is presented as a combination of two issues of the journal i.e. the January-June issue (No.1) and the July-December issue (No.2) usually published as separate issues.

The contents of this volume begins with the article on **“Index of opportunity for natural selection among the Idu Mishmi of Dibang Valley district, Arunachal Pradesh”** by D. K. Limbu and Dolly Gogoi who highlight the index of selection intensity in the Idu Mishmi, a homogenous tribal group inhabiting the Dibang valley district of Arunachal Pradesh and compare the findings with the related information from the published data on other mongoloid populations of Northeast India.

Anamika Upadhaya and co-authors present the **“Effect of temperature on germination of Citrus macroptera, Citrus latipes and Citrus indica seeds”** which is a crop of high economic importance cultivated extensively in Northeast India.

Taranga Jyoti Baruah and Lakhon Kma in their article **“Flavonoids and radiation response of cancer cells: A therapeutic prospective”** present how radioprotectors and radiosensitizers can increase the effectiveness of radiation therapy and Flavonoids can act both as radioprotectors and radiosensitizers. As radioprotectors, flavonoids could up-regulate the anti-oxidant enzymes and DNA-repair processes in the cells and as

radiosensitizers, flavonoids inhibited the pro-survival pathways while up-regulating the apoptotic pathways.

In their research findings on **“Nutritional status in relation with age and place of residence among the adult Rongmei Naga of Manipur”**, Guangdikhuanliu Riamei and Sudipta Ghosh highlight the association between nutritional status, through Body Mass Index (BMI), and age and place of residence (rural vs. urban) among the adult Rongmei Naga of Manipur.

The article **“A proteomic approach to pesticide stress management in microalgae”** by Ng. Kunjarani Chanu and Neha Chaurasia highlights the proteomics approach using Two-dimensional gel electrophoresis and MALDI-TOF for analysing the protein profile of microalgae and the importance such molecules in combating pesticides stress.

Sumita Biswas and her group have presented their findings on **“Isolation and identification of cellulose degrading bacteria from gut of two herbivorous pest larvae”** along with the importance of insect gut microflora who contribute towards the utilization of complex food resources in the gut of the host.

In the article **“Agro-forestry: An alternative for Jhum Cultivation in Meghalaya”**, Lolita M. Shangpliang presents a lucid information on Agro-forestry as an alternative to jhum cultivation highlighting the details about the proposed methods of Agro-forestry.

Jayanta Kumar Behera in his paper **“Migration of tribals and their settlement: A study in Dindori district of Madhya Pradesh”** has presented how pulling as well as pushing factors induce tribal migration in different parts of central India with a focus on the migration pattern of tribal population in Dindori district of Madhya Pradesh.

The article **“Evaluation of Antioxidant properties of Quercetin in DEN-induced Hepatocellular Carcinoma in BALB/c mice”** by Casterland Marbaniang and co-authors present the research findings on the antioxidant properties of Quercetin in diethylnitrosamine (DEN)-induced Hepatocellular Carcinoma (HCC) where HCC is one of the most common malignant tumors in the world.

Rik Ganguly and Atanu Bhattacharjee in their article **“Atherosclerotic plaque development: Disease Pathogenesis and emerging treatment options”** present a picture on basic mechanism that helps in Artherogenesis which are trans-migration of different granulocytes in the intimal layer of the artery with the help of adhesion molecules expressed in the outer layer of the activated endothelium.

Satyawada Rama Rao and co-authors present the scientific relevance and significance of **“Okra- an important vegetable crop of India”** as a major vegetable crop of India having popularity among farmers and consumers because of its diverse usage as fiber yielding and ornamentals for their beautiful flowers.

“A preliminary note on big data and machine learning technologies” by Sandeep Sharma and N.C. Barwar narrate on Big data as high-volume, high-velocity and variable information assets which demand cost-effective, innovative forms of processing for enhanced insight and decision making, and many machine learning strategies are coordinated with big data analytics tools.

Before I close, I once again thank the reviewers for the precious time spared and their promptness in reviewing the articles. It is my earnest request to the scholars to submit their articles for publication in the future issues of The NEHU Journal.

Stay safe

Prof. S.R. Joshi

Editor