

## List of Speakers with Titles of Presentations

| S. No                   | Title of the presentation  | Presenting author       |
|-------------------------|--|-------------------------|
| <b>INVITED LECTURES</b> |  |                         |
| I-1                     | Neuroprotective AMPA receptor modulators: from computer-aided drug design to synthesis and preclinical studies                           | Vladimir A. Palyulin    |
| I-2                     | Adventures in the evolving landscape of mathematical descriptors of molecules and biomolecules: A tortuous journey of fifty years        | Subhash C. Basak        |
| I-3                     | Pharmacophore recognition of bioactive molecules may aid in more efficient AI-driven database searches for discovery of potent compounds | Apurba K. Bhattacharjee |
| I-4                     | Bioinformatics, computer polyhedra and mosquitos: Insect sodium channels functioning from a theoretical perspective                      | Wieslaw Nowak           |
| I-5                     | Simulating optical properties of organic and biomaterials  | Nađa Došlić             |
| I-6                     | Topological indices: Physicochemical significance in QSARS   | Anil Kumar Saxena       |
| I-7                     | Higher-dimensional structures for a better understanding of the chemical space and its evolution   | Guillermo Restrepo      |
| I-8                     | A novel pyruvate kinase activator – From a HTS impurity to a lead series   | Shahul H. Nilar         |
| I-9                     | Assessment of JNK3 enzyme inhibition of piceatannol - in silico & in-vitro studies   | Ramanathan, M.          |
| I-10                    | Modelling adsorption of small structures onto fullerene graphs   | Tomislav Došlić         |
| I-11                    | Unravelling the complex immunorepertoire of an immune library  | Theam Soon Lim          |
| I-12                    | Entrapment of flow of substrate to diversion pathway for combating persistent tuberculosis: Bioinformatics Approach                      | Indira Ghosh            |
| I-13                    | Building better computational toxicology solutions with AI and ML  | Suman Chakravarti       |
| I-14                    | Assessment of Blood-Brain Barrier entry of a structurally diverse set of chemicals using computed descriptors                            | Aritra Banerjee         |
| I-15                    | Growing counter-propagation artificial neural networks   | Igor Kuzmanovski        |
| I-16                    | Assessment of mutagenicity using computed molecular descriptors and support vector machines  | Igor Kuzmanovski        |
| I-17                    | Emotions extraction of autism children through art using deep learning techniques  | C. Vijayalakshmi        |
| I-18                    | VEGFR2 chemical space: Stimulator and inhibitory peptides  | Claudiu N Lungu         |
| I-19                    | Rhombelane based vaccines  | Claudiu N Lungu         |
| I-20                    | Mediated vasculogenesis and morphogenesis  | Claudiu N Lungu         |

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| I-21  | On the nature of chemical bond:<br>Quantum molecular polyhedra and collective bond description                                    | Ramon Carbó-Dorca   |
| I-22  | Clustering/classification of chemicals, proteomic data and emerging global viruses considering different kinds of representations | Marjan Vračko       |
| I-23  | Information-entropy descriptors for chemical reactions  | Denis Sabirov       |
| I-24  | Topological isomers of DNA dodecahedral links   | Jin-wei Duan        |
| I-25  | Perturbation response scanning analysis for drug-target networks  | Guang Hu            |
| I-26  | All-metal aromaticity and conceptual DFT  | Pratim K. Chattaraj |
| I-27  | The application of the QSPR methodology can help improve the prediction of protein folding rates                                  | Bono Lučić          |
| I-28  | Molecular descriptors or machine-generated features? Their impact in predictive modelling and QSAR                                | Giuseppina Gini     |
| I-29  | Use of alignment-free sequence descriptors (AFSDs) in the computer assisted unified vaccine design.                               | Smarajit Manna      |
| I-30  | Decoding proteomic mysteries: advanced graphical user interfaces for FASTA harmonization and in-silico mutation engineering       | Nitin Sapre         |
| I-31  | Mathematical chemodescriptors for the characterization of molecular chirality   | Natarajan, R.       |
| I-32  | Recent trends in the study of molecular descriptors using graph theoretic approach  | Lavanya Selvaganesh |

## ORAL PRESENTATIONS

|     |   |                    |
|-----|---|--------------------|
| O-1 | Essential oils from a tropical medicinal plant, <i>Ruta chalepensis</i> as a potential raw material in the manufacture of vector control formulations                   | Dharani Jayagopal  |
| O-2 | Bioactive compounds from <i>Ocimum tenuiflorum</i> as vector agent against <i>Aedes albopictus</i>  | Joel Jaison        |
| O-3 | Exploring the phytoconstituents and therapeutic potential of <i>Plumeria rubra</i> flower extract for SGLT-2 receptor targeting: GC–MS and an <i>in silico</i> approach | Abin V Geevarghese |
| O-4 | In silico evaluation of the isolates of <i>Calotropis procera</i> and <i>Nigella sativa</i> as anti-cancer potentials   | Renugadevi, T.     |
| O-5 | Molecular docking studies of phytomolecules against multi targets associated with antioxidants, anti-inflammatory and anticancer pathways                               | Maida Engels, S.E. |
| O-6 | Structural insights into 4-bromomandelic acid as a potent M2 muscarinic receptor antagonist: A molecular docking approach   | Judith Rashma, L.  |

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| O-7                         | Optimizing large-scale molecular docking: A novel software prototype for efficient drug discovery   | Ravikiran, R.                           |
| O-8                         | Inter- and intra-molecular interactions and dielectric dispersion studies of amino acid solubilized in anionic surfactant solution  | Ganesh, T.                              |
| O-9                         | Dielectric Relaxation Spectral and molecular interaction analysis of aqueous pyrazine in ethanol using Time domain reflectometry (TDR)  | Senthilkumar, P.                        |
| O-10                        | Computational insights into photoactive systems: exploring photoswitching, TADF, and photosensitization   | Moumita Banerjee                        |
| O-11                        | <i>Prosopis juliflora</i> leaf extract assisted synthesized tin oxide nanoparticles for applications high-performance supercapacitor electrode  | Suganya, G.                             |
| O-12                        | Green synthesis of zinc oxide nanorods using <i>Ficus benghalensis</i> aerial root extract and enhanced antibacterial activity  | Princess Gracia, J.                     |
| O-13                        | One-pot bioinspired synthesis of PbO/CuO/FeO trimetallic oxide nanocomposite using <i>Vitis vinifera</i> fruit juice for highly sensitive electrochemical detection of 4-nitrotoluene         | Bargavi, V.                             |
| O-14                        | Characterization of sequence similarity using BLAST versus novel alignment-free information theoretic sequence descriptors: A case study with Infectious Salmon Anemia Virus (ISAV) sequences | Tathagata Dutta & Constanza C. Carvajal |
| O-15                        | Predicting mutagenicity of a diverse set of chemicals using mathematical molecular descriptors and different statistical methods  | Ronit Bhattacharjee                     |
| O-16                        | Machine learning-integrated template-guided docking: a novel approach for identifying potent HIV-1 NNRTIs   | Swagata Gupta                           |
| O-17                        | A DFT study of lead-free halide perovskites GaMX <sub>3</sub> (X= Sr, Ba; X= F, Cl) for solar cell applications   | Vinita Rohlan                           |
| O-18                        | Design and evaluation of quercetin-5-fluorouracil conjugates and other similar conjugates as anti-cancer agents   | Priyarega, S.                           |
| O-19                        | A novel bio-indicator of soil fertility   | Nithyatharani, R.                       |
| O-20                        | Synthesis of Schiff bases as corrosion inhibitors   | Balamurugan, V.                         |
| O-21                        | Atom bond sum connectivity index of fuzzy graphs  | Sivamani, S.                            |
| <b>POSTER PRESENTATIONS</b> |   |   |
| P-1                         | Semi-synthetic PTP1B inhibitor from <i>Cassia auriculata</i> linn. by in silico method for diabetes management  | Ezhilanbu, K.                           |
| P-2                         | Exploring the role of revolutionizing the potential of explainable AI in drug discovery   | Visali, K.                              |

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| P-3   | Molecular dynamics simulations of phytochemicals from <i>Citrullus colocynthis</i> and <i>Pulicaria crispa</i> for anti-cancer potentials                                   | Jancy Reen, I.M.       |
| P-4   | Molecular dynamics study of afimetoran using desmond: Insights into structural dynamics and binding interactions  | Madhu Krishna, M.      |
| P-5   | Quantum mechanical analysis of the conformational and structural properties of clopidogrel bisulfate in the gas phase   | Davis Presley, S.I.    |
| P-6   | Identification of new chemical entities targeting glycogen synthase kinase-3 protein using in silico through artificial intelligence having indirubin as reference molecule | Manas Kumar, G.        |
| P-7   | Integrative in silico framework for evaluating meridine analogues: toxicity, QSAR, and molecular dynamics insight   | Vishnu, R.             |
| P-8   | Medicinal mushrooms in cancer treatment   | Mekala, S.             |
| P-9   | Application of machine learning in drug discovery   | Renita an Sindhiya, J. |
| P-10  | AI and ML in drug discovery   | Aishvarya, V.          |
| P-11  | Zero maintenance system for production of biofuels  | Kanishka, S            |