

24th Global Organic & Inorganic Chemistry Conference

July 18-19, 2018 | Atlanta, USA

Amino acid and Peptide Bio-conjugates as potential pharmacophores

Siva S Panda

Augusta University, USA

New drug discovery and development is one of the biggest challenges for the researchers. There are several approaches adopted for the new drug discovery. One of the most promising approaches for the development of new drugs is to improve existing drugs by manipulating their structural motifs or in producing novel analogs. The alternate approaches currently being adopted to overcome the challenges of multi-drug resistance and toxicity is molecular hybridization, which involves the rational design of new chemical entities by covalent fusion of two or more drugs, active compounds and/or pharmacophoric units with complementary activities and multiple pharmacological targets. These approaches seem attractive because it does not require the discovery of new scaffolds or validation of novel biological targets, which has proven to be an extremely difficult and time consuming task. We utilized these strategies and developed several amino acid and peptide conjugates, peptidomimetics, hybrid conjugates for different targets. We explored benzotriazole chemistry to make several conjugates as antibacterial, antifungal, anti-inflammatory, antimalarial and anticancer agents. Our synthesized conjugates are more potent and less toxic in compared to the standard/parent drugs. The details will be discussed in the conference.

SIPANDA@augusta.edu