J Develop Drugs 2016, 5:2(Suppl)
http://dx.doi.org/10.4172/2329-6631.C1.015

Green and simple synthesis of some new amino acids coupled triazole derivatives as starting material for synthesis of antileishmanial agents heterocycles

Ahmed M El-Saghier
Sohag University, Egypt

A several number of triazole heterocyclic containing amino acid derivatives were prepared using green conditions. These method was very interesting due to inexpensive, efficient, nontoxic and ecofriendly used for synthesis of some new triazole derivatives in aqueous media by the reaction of salicylic acid or 2-hydroxy acetophenone with substituted amino acids and thiosemicarbazide in multicomponent reaction. The operational simplicity, high yield achieved in short reaction time and green aspects by avoiding toxic catalyst which uphold the motive of green chemistry are major benefits that meet the requirements of green production including saving energy and high efficiency. The new derivatives allowed to reacts with different reagent to afford new heterocyclic compound such as pyrimidotriazole, N-substituted triazoles, imidatriazoleone and benzoxazintrozole derivatives. As well as, the present work involved the reaction of some newly triazole derivatives as starting material, for example compound 4, to react with various reagents in multicomponent reactions to afford new heterocyclic compounds such as Benzothiazopinotriazole, Pyrimidotriazole and Mannish bases of triazole. Azo Dyes are synthesized with different amines in presence of sodium nitrate and hydrochloric acid. Finally, it is important to illustrate that a large number of synthesized compounds contained Nitrogen Bridge-Head which had an interested biological activity. Some of synthesized compounds screened potent as Antileishmanial agents. All the synthesized compounds characterized by IR, ^{1}HNMR, ^{13}CNMR elemental analysis and mass spectra.

El_saghier@yahoo.com

Averting cancer effect of paracetamol drug via its analogues

Anwar El-Shahawy
Assiut University, Egypt

Paracetamol (acetaminophen) is widely used as an analgesic and antipyretic drug that is commonly available without a prescription. It has been reported as the common cause of drug toxic ingestion. Paracetamol (Acetaminophen) is 4-hydroxyacetanilide and it has worldwide use as analgesic and antipyretic medication that is readily absorbed after administration and has side effects. Paracetamol is metabolized primarily in the liver, into toxic and non-toxic products. Three metabolic pathways are notable, the following figure. The hepatic enzyme metabolizes Paracetamol, in the third pathway forming the toxic product as NAPQI (*N*-Acetyl-*P*-benzo-Quinone Imine). The other two pathways yield final products that are safe, and eventually excreted by the kidneys. Recent work has reported that NAPQI is carcinogenic in absence of glutathione due to the repetitive usage of Paracetamol Drug or due to overdose.

The calculated electron transfer studies shows that NAPQI has the lowest electron transfer energy with the nucleic acid bases, 0.382 eV by DFT method indicating to the electron transfer from guanine to NABQI inducing cancer effect in the liver. Paracetamol and Paracetamol analogues were studied by histological method. One of the studied analogues can be used safely.

anwarshahawy@gmail.com