

3<sup>rd</sup> International Conference on

## ORGANIC AND INORGANIC CHEMISTRY

July 17-19, 2017 Chicago, USA

**Design of 4H-chromene and chromene based azo chromophores: A novel series of potent antimicrobial and anticancer agents**Fawzia F Albalawi, Rawda M Okasha and Tarek H Afifi  
Taibah University, KSA

Heterocyclic compounds have attracted considerable attention for decades, due to their widespread applications. In particular chromene moieties are well known as important components either in biologically active or natural compounds. Synthetic analogous of chromene have shown a diversity of interesting properties over the years. Some of these molecules exhibited significant effects as pharmaceuticals, including antimicrobial, anticancer, antifungal and antianaphylactic characteristics. Among chromene molecules, 2-amino-4H-chromene (or 2-amino-4H-benzopyrans) derivatives hold a special place due to their wide ranging of biological actions as well as their use in cosmetics and pigments. Functionalization of 2-amino-4H-benzopyran compounds led to new possibility of applications such as in treatment of human inflammatory diseases, central nervous systems and in cancer therapy. Herein we are presenting the synthesis and characterization of new series of 4H-chromromene derivatives using multi-component reactions and investigating their antimicrobial and antitumor activities. The study also involves the synthesis of first example of chromene azo chromophores. Acute toxicity of some selected derivatives of these molecules has been explored using lactate dehydrogenase (LDH) release.

**Biography**

Fawzia F Albalawi has completed her PhD in 2009 from King Saud University. She works at Taibah University and has published more than 11 papers in reputed journals.

ffs\_chem334@hotmail.com

**Notes:**