



**ACSTM**  
2019

Asian Conference on Science, Technology & Medicine  
3rd Conference | 12-14 February, 2019 | Dubai, U.A.E



3<sup>rd</sup> Asian Conference on  
**Science,  
Technology  
& Medicine**

February 12-14, 2019

**CONFERENCE**  
**PROCEEDING**  
ACSTM-2019

5. Effect of Deltamethrin Toxicity on Hematological, Biochemical Profiles, and Oxidative Stress Biomarkers of Nile tilapia, *Oreochromis niloticus* (L.): Protective role of Quercetin  
*Prof. Heba Salah Hamed*
6. Design, Synthesis and Pharmacological Evaluation of New Ciprofloxacin-Based Compounds as Chimeric Antitubercular Agents  
*Dr. Kalam Sirisha*
7. Biological and Catalytic Evaluation of Selected Aromatic Amino Acid Based Surfactant Ester Hydrochlorides  
*Dr. Prakashanand Caumul*
8. Evaluation of *Syzygium polyanthum* Leaf Ethanol and *Myrmecodia pendans* Water-Extracts on Blood Glucose and Malondialdehyde Level in Healthy Volunteer  
*Dr. Tri Widyawati*
9. Bioprospecting of Marine Resources for the Exploration of Alternative Biomedicines  
*Dr. Ravikumar Sundaram*
10. Andrographolide Exerts Neuroprotection by Inhibiting NF- $\kappa$ B Associated NLRP3 Inflammasomes in Chronic Unpredictable Mild Stress Model  
*Mr. Sahabuddin Ahmed*
11. Application of an Indirect MiA ELISA for the Detection of *Mycoplasma bovis* Antibodies in Bovine Milk  
*Dr. Abd Al-Bar Al-Farha*
12. Polyaniline-Bimetal Nanocomposite with its Potential Anticancer Activity against Human Hepatocellular Carcinoma (HepG2) Cell Line  
*Dr. Pandi Boomi*
13. Ouabain Induces the Antimicrobial Activity of Aminoglycosides against *Staphylococcus aureus*  
*Dr. Antresh Kumar*
14. Bacteriocin and Other Siderophore Biosynthesis in Virulent *Aeromonas hydrophila* Isolated from Clinical, Milk and Fish Samples  
*Mr. Subashkumar Rathinasamy*
15. Biofilm Inhibitory Potential of Clarithromycin against *Salmonella typhimurium* by Targeting CsgD: A Major Biofilm Regulator  
*Ms. Munirah Zafar*
16. Antiglycation Agents as Lead against Diabetes and Associated Complications  
*Dr. Humera Jahan*
17. A Novel Nanotechnology-Based Strategy for Effective Treatment of Periodontitis  
*Mr. Nafiu Aminu*
18. Effect of *Argas persicus* and *Dermacentor Variabilis* on the Blood and Biochemical Parameters of Local Chicken, in Al-Najaf province, Iraq  
*Prof. Nihad Khalawe Tektook*
19. Novel carbopol-based niosomal gel of *Annona muricata* Leaves Extract for Skin Cancer Treatment: in vitro characterization and in vivo study  
*Dr. Heyam Saad Ali*



## PROCEEDING

# 3rd Asian Conference on Science, Technology & Medicine 2019



## Design, Synthesis and Pharmacological Evaluation of New Ciprofloxacin-Based Compounds as Chimeric Antitubercular Agents

### Presenter

**Dr. Kalam Sirisha**

Vaagdevi College of Pharmacy, India



### Type

Oral Presentation

### Track

Pharmacology & Toxicology

### Location

Gadir Hall

**Sirisha, K., B. Diva, M. Begum, Prathibha, N. Niveditha, C. Chaitra, V. R.Rao, G. Achaiah and V. M. Reddy**

<sup>1</sup>Medicinal Chemistry Research Division & Department of Microbiology, Kakatiya University, Telangana, India,

<sup>2</sup>Dr. Iravatham`s Clinical Laboratory, Mahaveer House, Basheerbagh, Telangana, India

<sup>3</sup>Department of Chemistry, National Institute of Technology, Telangana, India

<sup>4</sup>University College of Pharmaceutical Sciences, Kakatiya University, Telangana, India

### Abstract

India is the country with the highest burden of tuberculosis (TB) killing about 2 million people annually. Fluoroquinolones are the major class of antibacterial drugs useful for the treatment of TB. Ciprofloxacin, ofloxacin, moxifloxacin, gatifloxacin etc. are currently the most commonly used agents against TB. At concentrations less than 1 microg/ml they are active against diverse types of bacteria. However, bacteria are resistant to all approved antibiotics and can only be treated with experimental and potentially toxic drugs. Microbial development of resistance, as well as economic incentives, has resulted in research and development in the search for new antibiotics in order to maintain a pool of effective drugs at all times. There is a considerable effort in the industry to discover and develop newer derivatives of fluoroquinolones in the pursuit of increasing their effectiveness and preventing unwanted resistance for the treatment of tuberculosis. Thus, in continuation of our work on developing newer antitubercular molecules, recently we designed some new chimeric ciprofloxacin analogues and studied their molecular properties, binding affinity and orientation with the target proteins(docking studies) using various softwares. The non toxic, drug like, top ranked compounds were identified and synthesized by appropriate methodologies, characterized and evaluated for their possible in vitro antibacterial and antitubercular activities. The results indicated that all the test compounds have shown excellent antibacterial and anti tubercular activities against normal and resistant strains. They were found to be more potent than the standard, ciprofloxacin.

### Biography

**Dr. Kalam Sirisha** is working as Professor at Vaagdevi College of Pharmacy, India. She has received her Ph.D. in Pharmaceutical Sciences from Kakatiya University, India. Her areas of interests include Rational drug design, MDR in Cancer & Tuberculosis, Green Synthesis of heterocycles and Herb-Drug Interactions. He has 24 Publications in national & International Journals

