



Use of heterogeneous phyto-antibiotics against pan-drug resistant bacterial pathogenesis

Asit Kumar Chakraborty

Vidyasagar University, India

Abstract:

Multi-drug resistant bacterial pathogenesis has emerged as serious threat to society where common antibiotics alone or in combination fails to cure disease. In most cases fifth generation invasive antibiotics cocktail with very high cost were used for successful cures. India is a poor country where peoples are agriculture-based low income group and many of them were plunged into nasty poverty line just due to high cost of hospitalization. We have tried to develop low cost phyto-medicine against MDR pathogenesis from common medicinal plants of Midnapore district of West Bengal. We claim that root and bark organic extract of *Suregada multiflora*, *Cassia fistula* and *Jatropha gossipifolia* were excellent drug with triterpene, polyphenol and saponin character. TLC and HPLC were used to purify the abundant phyto-chemicals which were further characterized by Mass, NMR and FTIR spectrometry. 95% pure phyto-chemicals have low toxicity profile in rats and Moly fishes. CU1 has RNA polymerase target whereas NU2 has DNA topoisomerase I target. We are first in India to claim that phyto-drugs are safe against human to cure MDR bacterial infection. As MDR bacteria were contaminated in river, sea and rain water, any one is susceptible to AMR disease. I will represent the silent feature of phyto-drug development problems in India against popular synthetic antibiotics from International pharmaceutical companies.



Biography:

Asit Kumar Chakraborty is Associate Professor of Biochemistry, Oriental Institute of Science & Technology, Post Graduate Department of Biotechnology & Biochemistry, VIH Campus, Rangamati.

Publication of speakers:

1. Tortora, G. J., B. R. Funke, and C. L. Case. *Microbiology: An Introduction*. 12th ed. 2016. ISBN: 9780321929150.
2. Sebastian P. *Ayurvedic Medicine. The principles of traditional practice*. 1st Edition 2006. Elsevier Press, ISBN: 9780443100901.
3. Ackerknecht, E. H. *A Short History of Medicine*. Baltimore, MD. The Johns Hopkins University Press, 1982.
4. Chakraborty, A. K (2019) Conceptual Drug Discovery and Societal Status may not be Sufficient to Combat Multi-drug-Resistant Infections. *Pharmaceutical Regulatory Affairs* 7, 213. doi: 10. 4172/2167-7689. 1000213.

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