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**Program AND Abstracts**

## 41. Synthesis and In-Vitro Biological Activity of Novel Imine Derivatives

Gholamreza Zarini, PhD

Faculty of Natural Science, University of Tabriz, Tabriz, Iran

A diversity of biological activities and pharmaceutical uses have been attributed to imine derivatives such as antibacterial, antifungal (1,2).

A series of imine derivatives were synthesized and their structure confirmed by FT-IR, <sup>1</sup>HNMR, <sup>13</sup>CNMR, elemental analysis.

The synthesized compounds were evaluated for their antimicrobial activity against bacterial strains *Staphylococcus aureus* ATCC25923, *Bacillus subtilis* ATCC 6633 *Escherichia coli* ATCC 25922, *Klebsiella sp.* ATCC 700834 and the yeast *Candida kefyr*. The MICs (minimum inhibitory concentration) values of the compounds were determined by two-fold microdilution method. Microbiological results showed that the compound 3 possessed broad spectrum of antimicrobial activity against Gram-positive and Gram-negative bacteria, and also against the yeast *Candida kefyr* with MIC value lower than 62.5µg/ml. The other compounds were indicated poor antimicrobial potency against test strains.

REFERENCE:

- 1) Josi S.P., Vagdevi H.M, Vaidya V.P, (2008) European Journal of medicinal Chemistry, 43, 1989-1996.
- 2) Eun Soo park, Woong sig moon, Gin san yoon (2001) International Biodeterioration and biodegradation 47, 209-214.

## 42. Anti-Influenza Activity of the N-Benzylaminomethansulphonic Acid

Ruslan Khoma, PhD<sup>1</sup>, Alim Ennan, MD, MPH<sup>2</sup>, Tetyana Grydina, PhD<sup>3</sup>, Karina Radkevich, MS<sup>3</sup>, Alla Fedchuk, PhD<sup>4</sup>, Viktor Lozitsky, PhD<sup>4</sup>

<sup>1</sup>Odesa I.I. Mechnikov National University, Odesa, Ukraine; <sup>2</sup>Physico-Chemical Institute of Environment and Human Protection, Odesa, Ukraine; <sup>3</sup>Odesa National Medical University, Odesa, Ukraine; <sup>4</sup>Odesa Research Center for Biological Testing Products and Preparations, Odesa, Ukraine

The influenza virus causes the greatest number of acute respiratory viral infections, which can lead to an exacerbation of chronic systemic diseases, to emergence of bacterial complications, to a significant deterioration of public health. But the majority of human isolates of influenza viruses rapidly become resistant to remantadine, oseltamivir. So, the creation of new effective anti-influenza agents is urgent task of medical science.

The purpose of this study is to research antiviral activity derivative of the N-benzylaminomethanesulphonic acid (BnAMSA) compared reference drug (Tamiflu).

Methods of the compound activity studies in vitro on the tissue culture of chorio-allantoic covers of 10-12-days chicken embryos (CAC) were used. We have studied the influence of BnAMSA to extracellular virus A/PR/8/34 (H1N1) and on the fabric's ability to maintain its reproduction after BnAMSA treatment. We also studied the effect of the substance on the reproduction of the viruses A/PR/8/34 (H1N1) and A/Hong Kong/1/68 (H3N2) in the cell culture CAC.

BnAMSA had not neither efficacy against extracellular virus A/PR/8/34/ nor influence on the fabric's ability to maintain its reproduction. BnAMSA inhibited reproduction of A/Hong Kong/1/68 on 4,08 log<sub>10</sub> TID<sub>50</sub> and A/PR/8/34 on 1,67 log<sub>10</sub> TID<sub>50</sub> as compared to control. Tamiflu demonstrated 4,07 and 4,07 log<sub>10</sub> TID<sub>50</sub> respectively.

So, BnAMSA demonstrated antiviral activity against influenza virus A/Hong Kong/1/68 on the level of Tamiflu. Level of inhibition reproduction of influenza virus A/PR/8/34 of BnAMSA was lower than level Tamiflu. Results of this study show that N-benzylaminomethansulphonic acid is promising compounds for searching and design of effective antivirals.