

MESMAP-3 ABSTRACTS
April 13th - 16th, 2017 / Girne-Turkish Republic of Northern Cyprus

**The Third International Mediterranean
Symposium on
Medicinal and Aromatic Plants**

**MESMAP - 3
ABSTRACT BOOK**

April 13th – 16th, 2017

Girne-Turkish Republic of Northern Cyprus

ISBN: 978-605-61261-2-3

ORAL PRESENTATION - 61

**BIOCHEMICAL COMPOSITION AND ANTIMICROBIAL
ACTIVITIES OF OIL EXTRACT OBTAINED FROM HAMSTERS**

Bijlana Bauer¹, Vesna Kostik², Svetlana Cekovska³, Gordana Jankoska³, Ana Kocevska³

¹ Faculty of Pharmacy, University of Ss Cyril and Methodius, Majka Tereza No 47, 1000 Skopje, Republic of Macedonia

² Institute of Public Health, 50 Divizija No. 6, 1000 Skopje, Republic of Macedonia

³ Medical faculty, University of Ss Cyril and Methodius, 50 Divizija No. 6, 1000 Skopje, Republic of Macedonia

In Struga and surrounding one interesting medicine from animal origin nowadays exist for healing an ear pains. This traditional medicine probably was prescribed by the physician Vladimir Kavaev (born in 1885) who studied military medical academy in Russia. Doctor Kavaev and his wife Elena (also physician) were personal acquaintances and collaborators of Lenin ^[1]. To this day this medicine is prepared in some areas in Republic of Macedonia as a very efficient and irreplaceable remedy for ear pain. No, literature data exist about preparing and usage of this remedy prepared with just borne hamsters, in our country and other countries in the world ^[2]. Because of that with our contemporarily investigations on the biochemical composition and antimicrobial activities of this oil extract we have tried to find an explanation of its usage for healing ear pains. The biochemical composition of the oil extract obtained from hamsters determined by the Eclia (Electrochemiluminescence assay) showed more than 1750 nmol/l of Cortisol and more than 70.0 nmol/l 25-hydroxycholecalciferol. Mineral composition assay determined by electrothermal atomic absorption spectrometry after microwave digestion showed presence of 13.2 mg/kg Fe. The results for antimicrobial activities show inhibition of bacterial growth for *Escherichia coli* and *Pseudomonas fluorescens*, and low antimicrobial action on Gram positive bacteria i.e. *Staphylococcus aureus*. Discovered biochemical composition and antimicrobial activity of oil extract obtained from hamsters justify it's usage to date

Keywords: oil extract, antimicrobial activity, hamsters, biochemical composition, traditional medicine

References

- [1] Nikolovski, B. (1995). Prilozi za istorijata na zdravstvenata kultura na Makedonija, MFD, Skopje
[2] Mez-Mangold, L. (1971). A history of drugs, f. Hoffmann-La Roche & Co. Ltd, Basle