



CHOLNOKY LÁSZLÓ
SZAKKOLLÉGIUM

8th International Interdisciplinary Cholnoky Symposium

10 April 2025, Pécs

**Abstract
book**



ABSTRACT BOOK
of the
8th International Interdisciplinary Cholnoky Symposium
10 April 2025, Pécs

Organizing Committee

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Szerkesztette: Ángyán Virág Diána



Program

8:30 - 9:00	Regisztráció / Registration
9:00 - 9:15	Megnyitó, köszöntők / Symposium opening
9:15 - 10:45	Orvostudományi, Biotechnológiai és Gyógyszerésztudományi Szekció/ Medical sciences, Biotechnology and Pharmaceutical sciences Section
10:45 - 11:00	Kávészünet / Coffee break
11:00 - 12:15	Bölcsészettudományi Szekció / Liberal arts Section
12:15 - 13:00	Ebédészünet / Lunch break
13:00 - 14:00	Természettudományi Szekció I. / Natural sciences Section I.
14:00 - 14:15	Kávészünet / Coffee break
14:15 - 15:15	Természettudományi Szekció II. / Natural sciences Section II.
15:15 - 15:30	Zárszó, konferencia zárása / Closing remarks, closing the conference

Prezentációk maximum ideje **10 perc + 5 perc** kérdések

Maximum time for presentations: **10 minutes + 5 minutes** for questions

A poszterszekció a konferencia teljes ideje alatt megtekinthető a PTE GYTK „K” épület tetőterében –
Collaboratory (7624 Pécs, Rókus utca 2.)

The poster session will be open for the whole conference in the rooftop of building "K" - Collaboratory
(7624 Pécs, Rókus utca 2.)

Antibacterial effect of chestnut honey, lavender essential oil, and their combination

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Acute otitis media is a common condition in children, which is most often treated with antibiotics. The infection is often caused by resistant pathogens that form biofilms, which can slow down the healing process and promote the development of further infections. Honey and essential oils are natural therapeutic substances that are used in the treatment of microbial infections due to their antimicrobial and anti-inflammatory effects. In this study, we combined two natural substances with proven antibacterial activity, chestnut honey and lavender essential oil, to determine their efficacy in inhibiting biofilm formation by bacterial strains (*Haemophilus influenzae*, *H. parainfluenzae*, and *Moraxella catarrhalis*) causing otitis media.

The chestnut honey sample was characterized by microscopic pollen profiling, as well as sensory and physicochemical tests (pH, electrical conductivity, color intensity), which supported its chestnut origin. The chemical composition of the lavender essential oil, analyzed with gas chromatography - mass spectrometry, was found to be in accordance with the literature. The antibacterial effect of honey and essential oil alone, and their combination was tested using *in vitro* microbiological methods (determination of minimum inhibitory concentration, investigation of biofilm inhibition). Our experiments revealed that the honey - essential oil combination inhibited biofilm formation by the otitis media bacterial strains to a greater extent than honey and essential oil individually.

The results obtained from combining therapeutic substances may contribute to the development of new antibacterial preparations of natural origin.

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Keywords: essential oil, honey, antibiofilm effect, alternative medicine, acute otitis media

