



Second Propolis Conference
**PROPOLIS IN HUMAN &
BEE HEALTH CONFERENCE**

Sofia, September 28 – 29, 2018



propolisconference2018.cim.bg

Scientific Organizing Committee

Chair:

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President of the Bulgarian Phytochemical Society
Institute of Organic Chemistry with Centre of Phytochemistry (Bulgaria)

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SECOND PROPOLIS CONFERENCE, SOFIA 2018

Conference program

Friday, September 28, 2018

08:30 – 18:30 Registration

09:15 – 09:30 **Official opening ceremony**

Session I

09:30 – 10:10 **Plenary Lecture 1. James Fearnly (UK)**
Exploring a new generation of medicines from the beehive.

10:10 – 10:50 **Plenary Lecture 2. Marla Spivak (USA)**
What we know, and don't know, about the benefits of propolis to honey bee health

10:50 – 11:05 **Short lecture 1. Ahmad Sulaeman (Indonesia)**
Hepatoprotective activity of Indonesian stingless bee propolis against toxicity of anti-tuberculosis drug on pulmonary Tb patients

11:05 – 11:30 *Coffee break*

11:30 – 12:10 **Plenary Lecture 3. Stefan Stangaciu (Romania)**
Use of Propolis in Clinical Medicine. A review

12:10 – 12:25 **Short lecture 2. Kai Wang (China)**
Emerging impact of bee propolis for gut health: evidence and mechanisms

12:25 – 12:40 **Short lecture 3. Plamen Enchev (Bulgaria)**
Application of propolis – herbal ethanol extract and ointment for a leg with gangrene (clinical case)

12:40 – 12:55 **Short lecture 4. Verica Milojkovic (Serbia)**
Propolis: a natural product – great potential as a medicine

12:55 – 13:10 **Short lecture 5. Sevgi Kolayli (Turkey)**
Some apitherapeutic properties of chestnut propolis

13:10 – 14:20 *Lunch*

Session II

- 14:30 – 15:10 **Plenary Lecture 4. Tim Regan (UK)**
An exploration into the relationship between propolis production and trypanosome burden
- 15:10 – 15:50 **Plenary Lecture 5. Milena Popova (Bulgaria)**
Chemical profiling of tropical propolis: challenges and new data
- 15:50 – 16:05 **Short lecture 6. Efrain Alday (Mexico)**
Plant origin authentication of Sonoran propolis and its antiproliferative effect on cancer cells: a bioactive poplar type propolis from Semi-arid zones
- 16:05 - 16:20 **Short lecture 7. Alexandra C. H. F. Sawaya (Brazil)**
Chemical composition of extracts of geopropolis from *Melipona quadrifasciata* (Mandaçaia) evaluation of its antioxidant activity
- 16:20 – 16:35 **Short lecture 8. Vincenzo Zaccaria (Italy)**
Characterized propolis extracts, obtained with standardized extraction method, show similar chemical; profile (HPLC-ESI.MSN) and *in vitro* antibacterial, antioxidant and anti-inflammatory activity through evaluation of expression of miRNAs, mRNAs and proteins.
- 16:35 – 17:00 *Coffee break*
- 17:00 – 18:30 **General discussion:** Meeting of the International Propolis Research Group
- 18:30 - 19:30 **Poster session**
- 20:30 – 23:00 *Conference Dinner*

Saturday, September 29, 2018

08:30 – 18:30 Registration

Session III

- 09:00 – 9:40 **Plenary Lecture 6. Shigenori Kumazawa** (Japan)
Chemical profile and botanical origin of stingless bee propolis from Thailand and Indonesia
- 9:40 – 10:20 **Plenary Lecture 7. David Watson** (UK)
The immune modulatory and anti-protozoal effects of different propolis samples.
- 10:20 -10:35 **Short lecture 9. Stephen Bloor** (New Zealand)
New antiproliferative acyl glycerols from New Zealand propolis and source poplar resin.
- 10:35 – 10:50 **Short lecture 10. Risqa Rina Darwita** (Indonesia)
The efficacy of propolis fluoride in inhibiting dental caries activity on primary teeth
- 10:50 – 11:05 **Short lecture 11. Konstantia Graikou** (Greece)
An overview of chemical studies and biological activities of Mediterranean propolis
- 11:15 – 11:45 *Coffee break*
- 11:45– 12:25 **Plenary Lecture 8. Vassya Bankova** (Bulgaria)
Insights and pitfalls in propolis research
- 12:25– 13:05 **Plenary Lecture 9. Badiaa Lyoussi** (Morocco)
Propolis: Pharmacological properties and medical applications of Propolis in modern medicine
- 13:05 – 13:20 **Short lecture 12. Miguel Vilas-Boas** (Portugal)
A collaborative study for performance evaluation of analytical methods for propolis. An IHC trial
- 13:20 - 13:35 **Short lecture 13. Katarína Bíliková** (Slovakia)
Molecular characterization of propolis and royal jelly components as tool for study of their multifunctional therapeutic effects.
- 13:35– 14:30 *Lunch*

Session IV

- 14:30 – 14:45 **Short lecture 14. Michael Goblirsch** (USA)
Can propolis inhibit infection dynamics of honey bee (*Apis mellifera* L.) viruses *in vitro*?
- 14:45 – 15:00 **Short lecture 15. Shankar Katekhaye** (UK)
Study of relationship between geographical location of collection, chemical composition and biological activity of propolis by multivariate data analysis
- 15:00 – 15:15 **Short lecture 16. Amando Siuiti Ito** (Brazil)
Interaction of Artemillin C with model membranes: optical absorption and fluorescence spectroscopy studies
- 15:15 – 15:30 **Short lecture 17. Şaban Keskin** (Turkey)
A new approach to propolis extraction
- 15:30 – 15:45 **Short lecture 18. Cristina Almeida-Aguiar** (Portugal)
Portuguese propolis: a source of valuable bioactivities
- 15.45 – 16:15 *Coffee break*
- 16:15 – 16:30 **Short lecture 19. Zbigniew Balion** (Lithuania)
Anticancer properties of aqueous and nonaqueous propolis extracts
- 16:30 – 16:45 **Short lecture 20. Merve Keskin** (Turkey)
Antimicrobial effect of commercial propolis extract (BEE0©)
- 16:45 – 17:00 **Short lecture 21. Boryana Trusheva** (Bulgaria)
New insights into tropical propolis: propolis from Pitcairn Island **Short**
- 17:00 - 17:15 **Short lecture 22. Klemen Rihar** (Slovenia)
Toothpaste with propolis “Apident” shows antimicrobial activity *in vitro*
- 17:15 - 17:30 **Short lecture 23. Hugo Fearnly** (UK)
ARC (Apiceutical Research Centre): Developing a global BeePharma network. Local kelp for local health
- 17:30– 17:45 **Short lecture 24. Ashok K. Shakya** (Jordan)
Fatty acid analysis and biological activity of Jordanian Propolis
- 17:45– 18:00 **Closing Ceremony**

A Collaborative Study for Performance Evaluation of Analytical Methods for Propolis. An IHC Trial

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Propolis is well known for its potential applications but also for its chemical complexity, making it very hard to define quality standards for its commercialization. Every day it is possible to find new publications on this bee product describing a new singularity, a particular substance with high bioactivity never described or a new application. This systematic increment in scientific information, although relevant, do not always enable a clear comparison between samples due to the different methods and procedures used to assess its quality parameters. To strength the scientific studies on propolis and establish a background for future definition of standards for industry, producers and laboratories, the Propolis Working group of the International Honey Commission, performed an inter-laboratory study to harmonize basic analytical methods and evaluate their accuracy and robustness.

The collaborative study was accomplished by 12 laboratories from 9 countries and a company experienced in propolis trade. The samples under analysis, representing fifteen different origins around the globe, where fractionated and distributed to each laboratory, and so all participants analysed the same material. Overall, six parameters were evaluated: ashes, wax and balsamic extract on raw propolis, and total-phenolics, flavones and flavanones on propolis extract. The results were analysed following the international guidelines ISO 5725¹. Outliers were removed using Cochran's test, to check the homogeneity of variances at certain levels, and Grubb test's, to check the consistency of the laboratories average. The results revealed good reproducibility for ash, wax, balsamic content and flavones, while for flavanones the method is clearly unsuitable.

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References:

¹ ISO 5725, 1994. Accuracy (Trueness and Precision) of Measurement Methods and Results.