Second Propolis Conference

PROPOLIS IN HUMAN & BEE HEALTH CONFERENCE

Sofia, September 28 – 29, 2018

propolisconference2018.cim.bg

Scientific Organizing Committee

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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 primay 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 Artepillin 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. Zbigniev 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 (BEEO©)
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 Fearanly** (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**

The Impact of Honeybee Origin on the Quality of Propolis

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Propolis is a complex mixture of resinous material collected by bees from tree branches, bushes and leaves and transported to the beehive, where secretions, wax and pollen are added. Honeybees use this mixture with mechanical and biological purposes, to repair the hive, moisture management and to prevent the entrance of intruders1. The chemical composition of propolis depends on the botanical source around the apiary but also on the geographical and climatic conditions, with bees preferring specific resin sources. In temperate regions, such as Portugal, the main botanical sources of the resin are poplar, gum rockrose, oak, willow and acacia2.

This research outlines the study of how the origin of honeybees can influence the quality of propolis, comparing its physicochemical parameters. Honeybees used on this assay came from two distinct regions of Portugal, from the south (Vila-do-Bispo) and north (Bragança). Propolis production was carried out in two apiaries geographically distinct, Bragança and Vila-do-Bispo and honeybees from the two regions were established in both sites.

The results showed variability between the propolis collected in the apiaries, observing a greater content on wax and ashes in the apiary samples from the south. As regards to the phenolic composition, the content of total phenol and flavonoids was higher on the samples from the north side. In respect to the impact of the geographical origin of honeybees, it is found that the physical parameters and the phenolic characteristics are similar within the same apiary and no significant differences were observed considering the origin of honeybees.

References:

[1] Bankova VS, De Castro SL, Marcucci MC (2000) Propolis: recent advances in chemistry and plant origin. Apidologie 31: 3-15.

[2] Falcão SI, Tomás A, Vale N, Gomes P, Freire C, Vilas-Boas M (2013) Phenolic quantification and botanical origin of Portuguese propolis. Industrial Crops and Products 396: 887-897.