



# **47<sup>th</sup> APIMONDIA**

**International Apicultural Congress**

August 24 - 28, 2022

ISTANBUL, TÜRKİYE

[www.apimondia2021.com](http://www.apimondia2021.com)

## **PROGRAM BOOK**



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Dear fellow beekeepers, scientists and friends

I want to warmly welcome you to the 47<sup>th</sup> Apimondia Congress held in Istanbul Turkey. These past two years have been challenging, first with COVID and now with unprovoked fighting in Ukraine. The 47<sup>th</sup> Congress was planned in Ufa, Russia in 2021 and then postponed due to COVID to 2022. Even with all these challenges you are in store for a great Congress.

The ApiEXPO has brought together beekeeping related vendors and others, where you can browse the booths, make new acquaintances, and strike up a business deal perhaps. The scientific program is full and we have many roundtables and workshops to allow time to interact with scientists and beekeepers from around the world on issues of interest to all. Lastly, for the first time we are streaming the Congress and you can still sign up for virtual attendance. We will stream all sessions and also have a "news and events" broadcast each morning and evening as a way to bring the Congress to life and highlight particular themes and events. Even with our virtual option we are delighted to be meeting in person as we feel this personal interaction between new and old friends is what makes an Apimondia Congress the world class event that it is. Enjoy being together here after such a long time of isolation and restricted travel.

As we welcome you to Istanbul, 24-28 August 2022 please be sure to make time to take in the city and or sign up for technical tours. The venue is the same one we used in 2017 and so some of you will know what a wonderful setting this venue provides for a successful ApiExpo and Apimondia Congress. For those of you who could not join us in 2017, now is your chance to enjoy this vibrant city where East meets West. The food and culture in Istanbul are amazing and I also encourage you to find time to go out on the Bosphorus for a dinner cruise or simply take a ferry across to the Eastern side of the city. There is much to see, taste and enjoy in Istanbul in addition to the Apimondia Congress.

I look forward to speaking with many of you over the course of the Congress. I can be found at the Apimondia booth in the ApiEXPO when I'm not in another session. Stop by our booth and I'll sell you a t-shirt or hat! We are excited to see the two bids from Europe for our 49<sup>th</sup> Congress in 2025 and voting on that venue will take place on the final day.

I look forward to a great meeting and thank you for coming to Istanbul, or joining us online in a virtual way.

Best regards,

**Jeff Pettis**  
Apimondia President

A handwritten signature in blue ink that reads "Jeff Pettis".



## SPONSORS

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# COMMITTEES

## ORGANIZING COMMITTEE

### CONGRESS PRESIDENT

Dr. Jeff Pettis

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### APIMONDIA FEDERATION

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APIMONDIA VICE PRESIDENT

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Dr. Cristina Mateescu - Romania

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Dr. Fani Hatjina - Greece

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Lucas Alejandro Garibaldi - Argentina

Dr. Nicola J. Bradbear - United Kingdom

Etienne Bruneau - Belgium

David Mukomana - Zimbabwe

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BEE BIOLOGY COMMISSION

BEE HEALTH COMMISSION

BEEKEEPING ECONOMY COMMISSION

POLLINATION AND BEE FLORA COMMISSION

RURAL DEVELOPMENT COMMISSION

TECHNOLOGY AND QUALITY COMMISSION

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### OTHER MEMBERS

Enid Brown

James Edge

Maria Alejandra Palacio

## SCIENTIFIC COMMITTEE

Dr. Cristina Mateescu - Romania

Prof. Geraldine Wright - United Kingdom

Dr. Fani Hatjina - Greece

Norberto Luis Garcia - Argentina

Lucas Alejandro Garibaldi - Argentina

Dr. Nicola J. Bradbear - United Kingdom

Etienne Bruneau - Belgium

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APITHERAPY COMMISSION

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BEEKEEPING ECONOMY COMMISSION

POLLINATION AND BEE FLORA COMMISSION

RURAL DEVELOPMENT COMMISSION

TECHNOLOGY AND QUALITY COMMISSION

## GENERAL INFORMATION

### REGISTRATION

Registration Desks will be in service as below;

23 August	11:00 - 20:00
24, 25, 26, 27 August	08:30 - 19:00

### NAME BADGE

All participants and accompanying persons are kindly requested to wear their name badges throughout the Congress to be able to participate in the scientific sessions, exhibition and all other scheduled activities.

### EXHIBITION

Exhibition will take place in the B5 floor of the Istanbul Congress Center on below dates:

24 August 2022	10:00 - 19:00
25, 26, 27 August 2022	09:00 - 19:00

### TOURS

Tour desk is located in the Entrance Floor of the Congress Center. For Daily Istanbul Tours reservation has to be made until 12.00 on the day before the departure date.

For the Official Technical Tour reservations will be accepted until 13.00 on August 26<sup>th</sup> Participants registered in advance for the technical tour has to receive their vouchers from the Tour Desk until 15.00 on August 26<sup>th</sup>.

### INTERNET SERVICE

Free Wi-Fi service is available in the Congress Venue. Beside the wifi, an internet corner is located in the B2 Floor where all scientific sessions will be organized.

### LANGUAGE

Congress Language is English. Simultaneous translation in English, Spanish, French and Turkish will be available in the Opening & Closing Ceremonies of the Congress.

Simultaneous translation in English, Spanish, French and Turkish will be available in the Uskudar Hall 1 & 2, which is the main scientific session room where all the Major Symposiums will be organized.

### CERTIFICATE

Participants may receive their Certificate of Attendance by showing their name badge to the assigned computers in the registration area.

### LIABILITY AND INSURANCE

Registration fees do not include the insurance of participants against personal accidents, sickness and cancellations by any party, theft, loss or damage to personal possessions. Participants are advised to take out adequate personal insurance to cover travel, accommodation, cancellation and personal effects. Congress organisers cannot accept liability for personal injuries sustained, or for loss or damage of property belonging to meeting participants, either during, or as a result of the meeting.



# ORAL PRESENTATION GUIDELINE

- The time allocated for each presentation is 15 minutes including Q&A  
(Presentation: 10 mins, Q&A: 5 mins)
- Presenters should speak in English for the presentation. (except the Turkish Speakers)
- Presentation slides must be in English. (Including Turkish Presentations)
- Supported file types for the presentations are Microsoft Power Point, Adobe Acrobat.
- Presenters has to submit their presentation at least 2 hours before their session to Speaker Room which is located in B2 Floor.

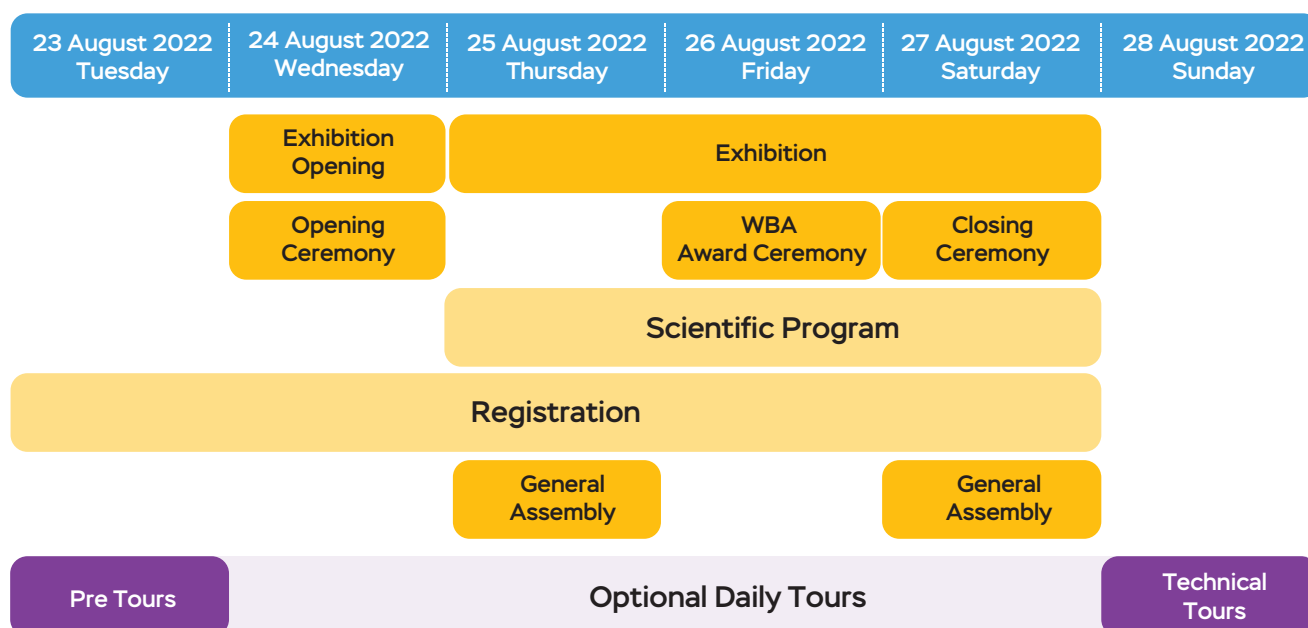
Presentations will be delivered to the related Session Hall from the Speaker Room.

- Presenters are prohibited from using personal computers at the session rooms for their presentations.
- We kindly ask presenters to be in the session hall at least 10 minutes before the session starts.
- We kindly ask presenters not to leave the hall until the session finishes.

Additional questions may be asked.

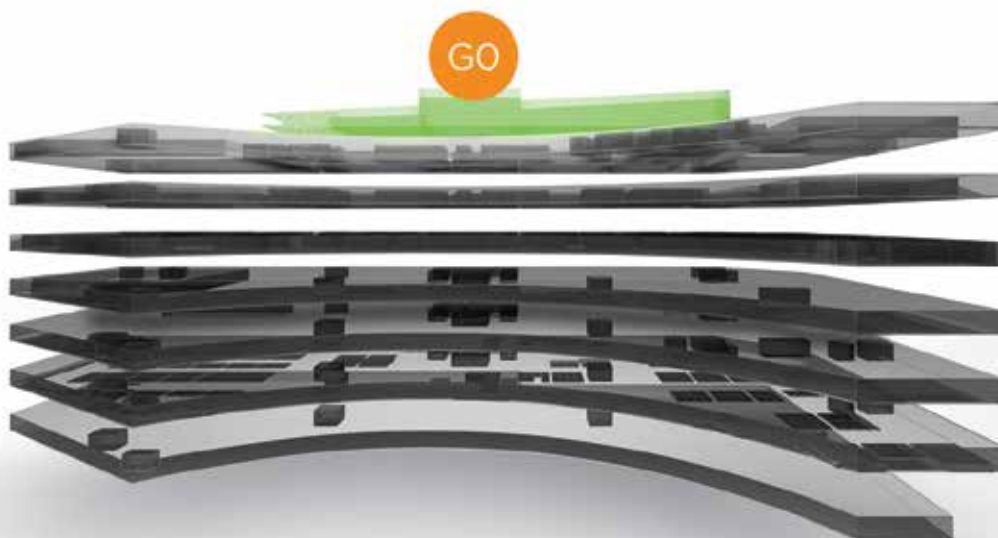
- Presenters should contact moderators of sessions and inform about their participation in the session at least 10 min before the symposium starts.

## OVERVIEW





## CONGRESS VENUE OVERVIEW



G0 Floor	REGISTRATION AREA
B2 Floor	HARBIYE AUDITORIUM
B2 Floor	CONGRESS SESSION ROOMS
B2 Floor	E-POSTER AREA
B2 Floor	SPEAKER ROOM
B2 Floor	INTERNET AREA
B3 Floor	PRAYER ROOM
B4 Floor	MAIN RESTAURANT & LOUNGE
B5 Floor	WBA – WORLD BEEKEEPING AWARDS
B5 Floor	EXHIBITION AREA
B6 Floor	CAR PARK
B7 Floor	CAR PARK



# APİTERA

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MIND

SUPPORT



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DETOX

MEMORY



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GEST



DIGESTION

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## PROGRAM AT A GLANCE

### AUGUST 24<sup>th</sup>, 2022

Exhibition Opening	: 11:00	B5 FLOOR
Exhibition	: 11:00 - 19:00	B5 FLOOR
Opening Ceremony	: 17:30 - 19:00	B2 FLOOR / Harbiye Auditorium

### AUGUST 25<sup>th</sup>, 2022

Congress Scientific Sessions	: 09:00 - 18:15	B2 FLOOR / 3 Parallel Halls
Apimondia General Assembly	: 16:00 - 19:00	B2 FLOOR / Beylerbeyi Hall
Exhibition	: 09:00 - 19:00	B5 FLOOR

### AUGUST 26<sup>th</sup>, 2022

Congress Scientific Sessions	: 09:00 - 18:15	B2 FLOOR / 3 Parallel Halls
Exhibition	: 09:00 - 19:00	B5 FLOOR
WBA Award Ceremony	: 18:00	B2 FLOOR / Beylerbeyi Hall

### AUGUST 27<sup>th</sup>, 2022

Congress Scientific Sessions	: 09:00 - 18:15	B2 FLOOR / 3 Parallel Halls
Exhibition	: 09:00 - 19:00	B5 FLOOR
Closing Ceremony	: 18:00	B2 FLOOR / Harbiye Auditorium

### AUGUST 28<sup>th</sup>, 2022

Technical Tours	: 08:30 - 18:30
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# SCIENTIFIC PROGRAM

**AUGUST 25<sup>th</sup>, 2022 - Thursday**

**USKUDAR  
HALL 1 & 2**

**09:00 - 13:00**

## **MAJOR SYMPOSIUM / HONEY PURITY AND AUTHENTICITY**

**Moderators: *Norberto Garcia***

09:00 - 09:40

Protecting Honey Purity: The USP Identity Standard  
***Gina Clapper & Norberto García***

**09:40 - 09:50**

**BREAK**

09:50 - 10:10

The Honey Fraud Mitigation Guidance  
***Karen Everstine***

10:10 - 10:30

Supply Chain/Supplier Relationship/ GBP on Supplemental Feeding  
***Enrique Bedascarrasbure***

**10:30 - 10:40**

**BREAK**

10:40 - 11:00

Audit Strategy. True Source Honey Program.  
***Eric Wenger & Jill Clark***

11:00 - 11:20

Economic Anomalies  
***Etienne Bruneau***

11:20 - 11:40

Decision Criteria in Honey Purity Testing  
***Stephan Schwarzing***

11:40 - 12:00

Pure and Authentic Honey in Human Health  
***Cristina Mateescu***

12:00-12:15

Harmony and Reciprocity within Indigenous Peoples' Food Systems:  
The Key Role Bees Play in Sustainability  
***Yon Fernández-de-Larriño***

12:15 - 13:00

QUESTIONS TO THE PANEL

**13:00 - 14:00**

**LUNCH BREAK**

**USKUDAR  
HALL 3**

**09:00 - 11:00**

## **SYMPOSIUM / BEE HEALTH MONITORING EFFECT OF PATHOGENS AND PESTS - 1**

**Moderators: *Fani Hatjina & Dirk de Graaf***

09:00 - 09:15

The Horizon 2020 B-GOOD project of the European Commission paves the way towards healthy and sustainable beekeeping within the European Union  
***Dirk C. De Graaf***

09:15 - 09:30

Tropilaelaps spp; Risk Assessment for Türkiye  
***Levent Aydın***

09:30 - 09:45

Are oxytetracycline – resistant isolates of Paenibacillus larvae circulating across Saskatchewan beekeeping operations?  
***Oleksii Obshta***



09:45-10:00	International risk assessment tools: the FAO survey to investigate on antimicrobial resistance, antimicrobial use, the good beekeeping practices and the biosecurity measures in beekeeping <b>Marco Pietropaoli</b>
10:00 - 10:15	Analysis of Pathogens Associated with Winter Colony Losses in Canada <b>Stephen F. Pernal</b>
10:15 - 10:30	Effect of abscisic and p-coumaric acids as food supplements and stimulants of the cellular immunological system of Africanized hybrids of <i>Apis mellifera</i> <b>Elissa Chavez Hernandez</b>
10:30 - 10:45	Artificial rearing of " <i>Galleria mellonella</i> " and effect of polystyrene and two biopesticides on larval feeding behavior <b>Dalida Darazy</b>
10:45 - 11:00	LAMP-technology: bringing molecular virus detection to the kitchen table <b>Dirk C. De Graaf</b>
11:00 - 11:15	<b>BREAK</b>

**USKUDAR  
HALL 3  
11:15 - 13:15**

## **SYMPOSIUM / BEE HEALTH MONITORING EFFECT OF PATHOGENS AND PESTS II**

**Moderators: Noa Simon-Delso & Mustafa Muz**

11:15 - 11:30	Pathophysiological Effects of the Microsporidium <i>Nosema ceranae</i> Infection on Worker Honey Bees ( <i>Apis mellifera</i> ). <b>Serhat Solmaz</b>
11:30 - 11:45	Chitosan-based gel application on model bees ( <i>Apis mellifera</i> L.) for healing bite wounds caused by <i>Varroa destructor</i> <b>Aslı Özkırım</b>
11:45 - 12:00	Improving Winter Losses With Caspian Method <b>Mackenzie Nielsen</b>
12:00 - 12:15	American foulbrood risk assessment: Paradigm shift from an individual hive to a "herd health monitoring" in Canadian beekeeping industry <b>Elemir Simko</b>
12:15 - 12:30	Does fungicide exposure or increased bacterial virulence predispose honey bees to european foulbrood during blueberry pollination in north america? <b>Sarah C. Wood</b>
12:30 - 12:45	Comparative study between four essential oils, chemical and physical treatments against " <i>Varroa destructor</i> " on " <i>Apis mellifera ligustica</i> " <b>Dalida Darazy</b>
12:45 - 13:00	Trans-generational immune priming in honeybees can be utilized to create vaccines against bee diseases. <b>Dalial Freitak</b>
13:00 - 13:15	EUBP Platform: Collective approach to understanding pollinator trends and threats <b>Noa Simon-Delso</b>
13:15 - 14:00	<b>LUNCH BREAK</b>



**EMIRGAN  
HALL  
09:00 - 13:15**

**ROUND TABLE OF ASIA**  
**Moderator: Cleofas Rodriguez Cervancia**

**SPEAKERS**

Mohd Zulkifli Mustafa - University Sains Malaysia

Orawan Duangphakdee - King Mongkut's University of Technology Thonburi, Thon Buri (KMUTT)

Maria Amelita C. Estacio - University of the Philippines Los Banos

09:00 - 11:00

Best Practices for Sustainable Stingless Beekeeping

**11:00 - 11:15**

**BREAK**

11:15 - 13:15

Establishment of Standard for Stingless Bee Honey

**13:15 - 14:00**

**LUNCH BREAK**

**USKUDAR  
HALL 1 & 2  
14:00 - 16:00**

**SYMPOSIUM / BEEKEEPING TECHNOLOGY & QUALITY  
HONEY PURITY AND AUTHENTICITY**  
**Moderators: Asli Özkök**

14:00 - 14:15

Chromatographic Determination of Foreign Diastase Adulterated Honey by Harnessing the Enzyme-Origin Differences  
**İsmail Emir Akyıldız**

14:15 - 14:30

Identification of the Rice Syrup Adulterated Honey by Introducing a Candidate Marker Compound for Brown Rice Syrup  
**Dilek Uzunöner**

14:30 - 14:45

Honey Adulteration Testing Update  
**Klaus Beckmann**

14:45 - 15:00

Tackling honey fraud by identifying functional relationships between adulteration tests  
**Uta Peters**

15:00 - 15:15

New untargeted evaluation techniques in honey by means of LC-Orbitrap-HRMS  
**Jule Hansen**

15:15 - 15:30

Elucidating the False Positive Tendency at AOAC 998.12 C-4 Sugar Test for Pine Honey Samples  
**İsmail Emir Akyıldız**

15:30 - 15:45

Analysis of volatile compounds – fingerprinting of mono-floral honeys.  
**Peter Tebbe**

15:45 - 16:00

A robotized light microscope system for automated melissopalynology analysis of honey  
Accurate and real-time pollen recognition powered by deep learning networks.  
**Pau Cardellach Lliso**

**16:00 - 16:15**

**BREAK**



**USKUDAR  
HALL 3**

**14:00 - 16:00**

**SYMPOSIUM / BEE HEALTH**

**METHODS TO CONTROL PATHOGENS AND PARASITES**

**Moderators: Victoria Soroker & Mustafa Muz**

- 14:00 - 14:15 Active and efficient honeybee probiotics against AFB disease.  
**Ihsan Soytemiz**
- 14:15 - 14:30 Widespread dispersal of Vairimorpha (Nosema) ceranae in the giant honey bee, Apis dorsata, in Thailand  
**Guntima Suwannapong**
- 14:30 - 14:45 "Apilactobacillus kunkeei" from Four Species of "Apis" Can Reduce "Vairimorpha" ("Nosema") "ceranae" Infection in the Giant Honey Bee, "Apis dorsata" Fabricius, 1793  
**Sanchai Naree**
- 14:45 - 15:00 How EM® probiotic for bees influence on gut microbiota composition of honeybees?  
**Ivana Tlak Gajger**
- 15:00 - 15:15 Plant derived molecules as alternative substitutes to control honey bee varroosis: Essential oils as a case study  
**Omar Er Rguibi**
- 15:15 - 15:30 Heat treatment against Varroa in an autonomous beekeeping system  
**Rya Seltzer**
- 15:30 - 15:45 Efficacy of double-stranded RNA for the large-scale control and prevention of sacbrood virus in Apis cerana (Hymenoptera: Apidae) apiaries  
**Yun Sang Cho**
- 15:45 - 16:00 Social and individual immunity following virus infection in honey bee (Apis mellifera)  
**Victoria Soroker**

**16:00 - 16:15**

**BREAK**

**EMIRGAN  
HALL**

**14:00 - 16:00**

**SYMPOSIUM / APITHERAPY**

**BEE PRODUCTS IN HUMAN AND VETERINARY CLINICAL TRIALS - 1**

**Moderators: Ali Timuçin Atayoğlu & Cristina Mateescu**

- 14:00 - 14:15 The Efficacy of Propolis Extracts as a Food Supplement in Patients with Covid-19  
**Betül Değer Kulaksız**
- 14:15 - 14:30 Impact of intrauterine infusion of the honey/propolis mix in normal postpartum dairy cows: Preliminary study  
**Rejean Cleophas Lefebvre**
- 14:30 - 14:45 Clinical Trials of Propolis EPP-AF® - from Safety studies until COVID-19 hospitalized patients  
**Andresa A Berretta**
- 14:45 - 15:00 Bioavailability of polyphenols from poplar propolis in men  
**Jean Francois Landrier**
- 15:00 - 15:15 Philippine stingless bee Tetragonula biroi (Friese) propolis lowers blood pressure through inhibition of the Angiotensin Converting Enzyme (ACE)  
**Maria Amelita Celino Estacio**



15:15 - 15:30	Does oral care with propolis affect the development of oral mucositis in pediatric oncology patients: a randomized controlled clinical study <b>Aslı Elif Tanuğur Samancı</b>
15:30 - 15:45	Clinical evaluation of a Sustained Release System based on a Propolis and natural oils biomembrane facial mask to treat acne <b>Andresa A Berretta</b>
15:45 - 16:00	The potential of Madu Kelulut (Heterotrigona Itama sp Honey) as a Functional Food for Dopamine Booster and Depression Prevention <b>Mohd Zulkifli Mustafa</b>
<b>16:00 - 16:15</b>	<b>BREAK</b>

**USKUDAR  
HALL 1 & 2  
16:15 - 18:15**

**SYMPOSIUM / BEEKEEPING TECHNOLOGY & QUALITY  
METHODS OF ANALYSES OF BEE PRODUCTS**

**Moderators: Aslı Elif Tanuğur Samancı**

16:15 - 16:30	Antibacterial activity – new honey qualitative standard reflecting biological properties of honey <b>Juraj Majtan</b>
16:30 - 16:45	Monitoring of some quality parameters of Bingol honey at different temperatures and in different storage containers for 12 months. <b>İnan Dursun</b>
16:45 - 17:00	Single Pot In-Situ Aqueous Derivatization and Subsequent Determination of Streptomycin and Dihydrostreptomycin Residues in Honey by Means of Mass Spectrometry <b>Sezer Acar</b>
17:00 - 17:15	Determination of glyphosate, aminomethylphosphonic acid, glufosinate and its acetyl-metabolites in honey by IC-MS/MS <b>Kurt Peter Ræzke</b>
17:15 - 17:30	Effect of Heat Treatment on Invertase, Diastase, and HMF (Hydroxymethylfurfural) in Honey Harvested in Turkey <b>Aslı Elif Tanuğur Samancı</b>
17:30 - 17:45	Advances in ISO standardization of bee pollen <b>Ufuk Alpat</b>
17:45 - 18:00	A recommendation for chemical standardization of propolis and propolis-based products <b>Hasan Hüseyin Oruç</b>
18:00 - 18:15	Effect of different parameters on the antioxidant capacity of propolis extracted by ultrasound-assisted extraction (UAE) <b>Fazıl Güney</b>





**USKUDAR  
HALL 3**

**16:15 - 18:00**

**SYMPOSIUM / BEEKEEPING FOR RURAL DEVELOPMENT  
BEEKEEPING AND RURAL LIVELIHOODS - 1**

**Moderators: Nicola Bradbear & Santiago Rivas**

- 16:15 - 16:30 Beekeeping development and potential of bee products in GAP Provinces (Turkey)  
**Şahin Karahan**
- 16:30 - 16:45 Explain how our beekeepers cooperatives contribute to develop the rural areas. We buy together from more than 1.000.000 of beehives in Spain.  
**Ramón Rodríguez Monje**
- 16:45 - 17:00 The purpose of beekeeping in rural development  
**Janet Lowore**
- 17:00 - 17:15 Beekeeping as a source of income for rural women in Issyk-Kul region, the Kyrgyz Republic  
**Dilbara Ismailovna Muratova**
- 17:15 - 17:30 Developing a beekeeping enterprise in select rural areas in the Philippines  
**Anna Locsin**
- 17:30 - 17:45 Bringing Back Bees & Beeks: Re-Initiating Apis cerana bee keeping with young beekeepers of Kerala (India)  
**Jose Louies**
- 17:45 - 18:00 Capacity building for beekeeping combining virtuality with Farmer Field Schools (Dominican Republic)  
**Santiago Rivas**

**EMIRGAN  
HALL**

**16:15 - 18:15**

**SYMPOSIUM / APITHERAPY  
BEE PRODUCTS IN HUMAN AND VETERINARY CLINICAL TRIALS - 2**

**Moderators: Ali Timuçin Atayoğlu & Cristina Mateescu**

- 16:15 - 16:30 Evaluation of the effect of Anatolian propolis on Covid-19 in healthcare professionals  
**Enes Güler**
- 16:30 - 16:45 Effect of propolis on the treatment of subclinical mastitis in dairy cows  
**Neringa Sutkeviciene**
- 16:45 - 17:00 Brown poplar propolis titrated in polyphenol and Covid-19 in real life: What interests ?  
**Claude Nonotte Varly**
- 17:00 - 17:15 From the hive to the office. Uses if propolis in dentistry  
**Nicolás Cardozo**
- 17:15 - 17:30 The use of honey and propolis against xenobiotics -Induced Oxidative Stress and Hepato-renal Damages: a potential approach that warrants a clinical exploration  
**Badiaa Lyoussi**
- 17:30 - 17:45 Descriptive study of propolis utility for obesity treatment  
**Andrii Dinets**
- 17:45 - 18:00 Investigation Of Potential Use Of Propolis Against The Infections Accompanied By Diaper Dermatitis (Rash)  
**Aslı Özkırım**
- 18:00 - 18:15 An Investigation into the Effects of Ethanolic Propolis Extract on Blood Clotting Parameters  
**Hüseyin Şahin**





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## AUGUST 26<sup>th</sup>, 2022 - Friday

### USKUDAR

#### HALL 1 & 2

09:00 - 13:00

### MAJOR SYMPOSIUM / CLIMATE CHANGE

Moderator: *Etienne Bruneau*

09:00 - 09:40 Challenges linked to Climate Change and his observe and projected Weather Extremes  
*Etienne Bruneau*

09:40 - 09:50 **BREAK**

09:50 - 10:30 How to improve biological resilience to climate and pathogens?  
*Coby van Dooremalen*

10:30 - 10:40 **BREAK**

10:40 - 11:00 Future Perspective of Beekeeping in MENA (Middle East North Africa) Region Under Scenarios of Climate Change.  
*Nizar Haddad*

11:00 - 11:20 How to maintain and increase natural food ressources for our bees?  
*Lucas Garibaldi*

11:20 - 11:30 **BREAK**

11:30 - 11:50 How to secure the incomes of professional beekeepers facing a lack of production stability and market volatility  
*Norberto Garcia*

11:50 - 12:10 Digital tools help the beekeepers in front of Climate Changes  
*Orianne Rolin*

12:10 - 13:00 QUESTIONS TO THE PANEL

13:00 - 14:00 **LUNCH BREAK**

### USKUDAR

#### HALL 3

09:00 - 10:45

### SYMPOSIUM / BEEKEEPING FOR RURAL DEVELOPMENT BEEKEEPING AND RURAL LIVELIHOODS WORLDWIDE - 2

Moderators: *Megan Denver & Vera Lucia Imperatriz Fonseca*

09:00 - 09:15 Development efforts to advance good practices and bee health for increasing honey production by rural beekeepers of the Kingdom of Saudi Arabia  
*Nuru Adgaba Mohammed*

09:15 - 09:30 Natural beekeeping for visitor attractions and public spaces  
*Paula Carnell*

09:30 - 09:45 Making beekeeping accessible for everyone: Breaking down the barriers of Disability in Uganda  
*Phionah Birungi*

09:45 - 10:00 Local experience: Concrete and cardboard for an ecological and economical hive (Togo)  
*Kodjo Logou Agossou*



- 10:00 - 10:15 Mobile Honey: Open-source traceability for honey and beeswax in Ghana  
**Giacomo Ciriello**
- 10:15 - 10:30 First detection of Nosema ceranae and black queen cell virus in Ghana  
**Lucija Žvokelj**
- 10:30 - 10:45 Report on the effectiveness of control measures in response to an outbreak of severe infestations of Aethina tumida in apiaries across Bono East Region, Ghana  
**Stephen Adu**

**10:45 - 11:15 BREAK**

**USKUDAR  
HALL 3  
11:15 - 13:00**

**SYMPOSIUM / BEEKEEPING FOR RURAL DEVELOPMENT  
FORESTS, BEES AND LIVELIHOODS**

**Moderators: Nicola Bradbear & Irfan Kandemir**

- 11:15 - 11:30 Promoting beekeeping and conservation in bioserve area in Turkey: A success story of Ali Nihat Gökyiğit Foundation (ANG)  
**Irfan Kandemir**
- 11:30 - 11:45 Planning Migratory Beekeeping with a Genetic Algorithm Based Approach for Sustainable Precision  
**Emine Özçelik**
- 11:45 - 12:00 Sustainable Agriculture for Migratory Beekeepers Considering Urbanization Plans  
**Emine Özçelik**
- 12:00 - 12:15 Integration of Beekeeping into Acacia-Based Industrial Forestry: A New Perspective  
**Muhamad Pangky Sucahyono**
- 12:15 - 12:30 Stationary microbeekeeping protocol improve a quantitative and qualitative properties of tropical honey  
**Orawan Duangphakdee**
- 12:30 - 12:45 Climate change threatens the conservation of an endangered Brazilian stingless bee species  
**Vera Lucia Imperatriz Fonseca**
- 12:45 - 13:00 Technology of wild hive beekeeping and of other bashkir traditional crafts  
**Aglyam Sharipov**

**13:00 - 14:00 LUNCH BREAK**

**EMIRGAN  
HALL  
09:00 - 10:45**

**SYMPOSIUM / BEE BIOLOGY  
BEE BEHAVIOUR, PHYSIOLOGY AND GENETICS**

**Moderators: Dilek Muz & Raquel de Sousa**

- 09:00 - 09:15 Adenosine signaling regulates the wingbeat frequency of Apis mellifera upon stress response  
**Yu Chun Lin**
- 09:15 - 09:30 The permeability of cell cappings to gases, volatiles, pathogens and acaricides  
**Alena Bruce Krejci**



09:30 - 09:45	Evaluation under field conditions of the effect of genetic origin, environment, and time of year on the characteristics of collected pollen, produced bee bread and nutritional status of <i>Apis mellifera</i> <b>Maria Alejandra Palacio</b>
09:45 - 10:00	Vitellogenin gene: A powerful genetic marker for the determination of honey bee subspecies <b>Ayça Özkan Koca</b>
10:00 - 10:15	Investigation of Bee Bread Use Efficiency in ( <i>Bombus terrestris</i> L.) Before Social Phase <b>Salim Aktürk</b>
10:15 - 10:30	A new Acaricidal Compound Against Varroa <b>Stephen F. Pernal</b>
10:30 - 10:45	Behavioural regulation of mineral salt intake in the adult worker honey bee <b>Raquel de Sousa</b>
<b>10:45 - 11:00</b>	<b>BREAK</b>

**USKUDAR  
HALL 1 & 2  
14:00 - 15:45**

**SYMPOSIUM / APITHERAPY  
INNOVATE TECHNOLOGIES IN API-PRODUCTS AND APITHERAPY  
Moderator: *Badiaa Lyoussi***

14:00 - 14:15	Proteomic studies and its antimicrobial activity of honeybee venom collected from <i>Apis dorsata</i> , <i>Apis cerana</i> , <i>Apis mellifera</i> and <i>Apis florea</i> species of Karnataka - India. <b>Bhargava Hunkunda Radhakrishna</b>
14:15 - 14:30	Development of cream formulations enriched with honeybee ( <i>Apis mellifera</i> L.) venom and bee products <b>Aslı Elif Tanuğur Samancı</b>
14:30 - 14:45	Immunomodulating Effect of water-soluble propolis extracts of green, red propolis and brown propolis (WEEP-GBR) <b>Jiheon Lee</b>
14:45 - 15:00	Propolis: Sustainability for the Honeybee - Sustainable Medicine for man? <b>James Townsend Fearnley</b>
15:00 - 15:15	Simultaneous Optimization of Extraction Yield, Phenolic Compounds and Antioxidant Activity of Moroccan Propolis Extracts: Improvement of Ultrasound-Assisted Technique Using Response Surface Methodology <b>Badiaa Lyoussi</b>
15:15 - 15:30	An important product in the development of effective alternative nanocomposites for use in medical and environmental areas: A honey bee silk <b>Sual Tatlisulu</b>
15:30 - 15:45	Current status of bee venom research and industrialization in Korea <b>Sang Mi Han</b>
<b>15:45 - 16:00</b>	<b>BREAK</b>

**USKUDAR  
HALL 3  
14:00 - 16:00**

**SYMPOSIUM / BEE HEALTH  
LOOKING TOWARDS RESISTANT BEES  
Moderators: *Fani Hatjina & Steve Rogenstein***

14:00 - 14:15	The potential use of fermented bee pollen as a probiotic supplement for bees <b>Adriana Cristina Urcan</b>
14:15 - 14:30	Breeding honey bees for low Varroa growth (LVG) in Canada <b>Ernesto Guzman Novoa</b>





14:30 - 14:45	Honey Bee Watch: an international scientific initiative for the protection of survivor colonies <b>Steve Rogenstein</b>
14:45 - 15:00	The nature of a survivor: population dynamics of Varroa destructor in a resistant, commercial honeybee ( <i>Apis mellifera</i> ) population over the active season <b>Melissa Oddie</b>
15:00 - 15:15	Comparison of the Performance of Four Honeybee Breeds (Carnica, Italian, Meda and a Meda-Carnica Hybrid) in the Mountainous Areas of Western Iran <b>Mokhtar Ghaffari</b>
15:15 - 15:30	A review on genetic resistance to the Varroa mite in honey bees <b>Mohammad Razmkabir</b>
15:30 - 15:45	Determination of Expression Levels of Some Candidate Genes Responsible for Grooming Behavior in Muğla honey bee ( <i>Apis mellifera anatoliaca</i> ) population bred against Varroa <b>Dilek Kabakçı</b>
15:45 - 16:00	Keep it simple: the power of ranking test results in the context of breeding for resilient honey bees <b>Dirk de Graaf</b>
16:00 - 16:15	<b>BREAK</b>

## EMIRGAN HALL

14:00 - 16:00

## SYMPOSIUM / BEEKEEPING TECHNOLOGY & QUALITY - ECONOMY BEE PRACTICES AND PRODUCTS

Moderators: *Ufuk Alpat*

14:00 - 14:15	Monitoring internal conditions in honey bee colonies during the winter period in different apiaries in north-western Spain <b>Ana Diéguez Antón</b>
14:15 - 14:30	Comparison of different preservation treatments and the effect on quality descriptor parameters in bee pollen <b>Enrique Mejias</b>
14:30 - 14:45	Mapping the conceptual structure of beekeeping from 1981 to 2020 <b>Shehu Folaranmi Gbolahan Yusuf</b>
14:45 - 15:00	How ready are beekeepers for Precision Apiculture Systems (P.A.S.)? A pan-European survey <b>Philippos Vardakas</b>
15:00 - 15:15	Speaking of Bees <b>Ted Dennard</b>
15:15 - 15:30	Organic Beekeeping Businesses in Turkey: Economic Structure and Sustainability <b>Tunay Kılıçin</b>
15:30 - 15:45	Physical, Chemical Features and Mineral Substance Profile of Turkish Pine Honey <b>Nevzat Artık</b>
15:45 - 16:00	The effect of Covid on the honey sales of the hobbyist beekeeper in Ireland <b>Eleanor Attridge</b>
16:00 - 16:15	<b>BREAK</b>



**USKUDAR  
HALL 1 & 2  
16:15 - 17:15**

**ROUND TABLE: BEKEEPING IN THE WORLD**

**Moderated by Apimondia Federation**

16:15 - 17:15

Apimondia Presidents will discuss issues in each area of the globe and issues affecting beekeepers and bees

**USKUDAR  
HALL 3  
16:15 - 17:15**

**WORKSHOP: BREEDING FOR RESISTANT BEES**

**Moderator: Fani Hatjina**

16:15 - 17:15

BREEDING FOR RESISTANT BEES

**Panellists: Raquel De Sousa & Pierre Giovenazzo & Ernesto Guzman-Navoa & Melissa Oddie**

**EMIRGAN  
HALL  
16:15 - 18:15**

**SYMPOSIUM / BEEKEEPING TECHNOLOGY & QUALITY  
BEE PRACTICES AND BREEDING**

**Moderator: Pierre Giovenazzo**

16:15 - 16:30

Virtual Reality in Training of Beekeeping: Seeing Future Through Virtual Hives  
**Sedat Sevin**

16:30 - 16:45

Online blooming reporting system for beekeepers  
**Ole Kilpinen**

16:45 - 17:00

Effects of Different Levels of Chelated Mineral Supplement (Bonza®Bee) On the Population Size and Brood Rearing in Honey Bee Colonies  
**Reza Bideshki**

17:00 - 17:15

Monitoring honeybees' health using environmental DNA (eDNA) contained in honey  
**Solenn Patalano**

17:15 - 17:30

Advances in palynological analysis of bee pollen loads  
**Aslı Özkök**

17:30 - 17:45

The strenuous road toward honeybee stock self-sufficiency  
**Pierre Giovenazzo**

17:45 - 18:00

Effects of Various Mechanical Factors on Honeybee Sperm  
**Abdulkadir Kaya**

18:00 - 18:15

Comparison of the chromatographic and palynological methods used to identify the botanical origin of propolis: Which method is more reliable?  
**Etil Güzelmeriç**



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## AUGUST 27<sup>th</sup>, 2022 - Saturday

### USKUDAR HALL 1 & 2

09:00 - 13:00

### MAJOR SYMPOSIUM/ NATURE BASED BEEKEEPING

Moderators: *Nicola Bradbear & Dickson Biryomumaisho*

- 09:00 - 09:20 Introduction to Nature Based Beekeeping  
*Nicola Bradbear*
- 09:20 - 09:40 Nature based commercial beekeeping in North America  
*Tucka Saville*
- 09:40 - 09:50 BREAK**
- 09:50 - 10:10 Beekeeping practices to improve colony resilience  
*Sébastien Bonjour & Anne Dalmon*
- 10:10 - 10:30 Economic and environmental reality of nature-based beekeeping in Africa  
*Janet Lowore & Giacomo Ciriello*
- 10:30 - 10:40 BREAK**
- 10:40 - 11:00 Nature based beekeeping in South America.  
*Marta Soneira*
- 11:00 - 11:20 Treatment-free beekeeping  
*Fani Hatjina*
- 11:20 - 11:30 BREAK**
- 11:30 - 11:50 Inflation-free beekeeping  
*Janet Lowore & Dickson Biryomumaisho*
- 11:50 - 12:10 Importance of nature-based beekeeping for human health  
*Cristina Mateescu*
- 12:10 - 13:00 QUESTIONS TO THE PANEL
- 13:00 - 14:00 LUNCH BREAK**

### USKUDAR HALL 3

09:00 - 11:00

### SYMPOSIUM / BEE BIOLOGY

### REPRODUCTIVE BIOLOGY, CRYOCONSERVATION AND BEE PRODUCTS

Moderators: *M. S. Reddy & Raquel de Sousa*

- 09:00 - 09:15 Metabolite support of long-term storage of sperm in the spermatheca of honeybee queens  
*Zhenguo Liu*
- 09:15 - 09:30 Instrumental insemination of bee queens in the Volga region. Creating a laboratory  
*Dmitry Lvovich Maslov*
- 09:30 - 09:45 Advances in cryopreservation of honeybee embryos: Optimisation of the first steps  
*Florence Guignot*
- 09:45 - 10:00 Relation between seminal fluid proteins and semen quality in *Apis mellifera*.  
*Maria Alejandra Palacio*



10:00 - 10:15	Validation of Calcein Violet as a new marker of semen membrane integrity in <i>Apis mellifera</i> drones <b>Sophie Egyptien</b>
10:15 - 10:30	Cryopreservation of Honey Bee Semen <b>Saffet Sansar</b>
10:30 - 10:45	New approaches in propolis extraction methods <b>Ibrahim Demirtaş</b>
10:45 - 11:00	The taxonomy of honeybees and the significance for honey production in Nigeria <b>Akeem Abolade Oyerinde</b>
11:00 - 11:15	<b>BREAK</b>

**USKUDAR  
HALL 3  
11:15 - 13:15**

**SYMPOSIUM / BEE BIOLOGY  
SUBSPECIES CHARACTERIZATION AND CONSERVATION**

**Moderator: M. S. Reddy & Raquel de Sousa**

11:15 - 11:30	Modelling relationships in honeybee colonies and populations with SIMplyBee <b>Jana Obšteter</b>
11:30 - 11:45	The returning honey bees of " <i>Apis nigrocincta</i> " collect less diverse pollen compared to the sympatric " <i>A. cerana</i> " in Central Sulawesi <b>Rika Raffiudin</b>
11:45 - 12:00	Morphological Characterization of Selected Honey Bees ( <i>Apis mellifera</i> L.) Originated from Western and Central Black Sea <b>Ahmet Kuvancı</b>
12:00 - 12:15	Predicting distribution modeling of <i>Apis florea</i> F. in the world <b>Shabnam Parichehreh</b>
12:15 - 12:30	Morphometric Characterization of Cypriot Honeybee <i>Apis mellifera cypriaca</i> and Its Venom Cytotoxic Effectiveness against Cancer Cells <b>Ekin Varol</b>
12:30 - 12:45	A mobile phone application to survey and monitor the wild colonies of <i>Apis mellifera</i> <b>Paolo Fontana</b>
12:45 - 13:00	Morphometric investigation of the Saharan honey bee ( <i>Apis mellifera sahariensis</i> Baldensperger, 1932) in southeastern Morocco reveals signs of hybridization <b>Abdessamad Aglagane</b>
13:00 - 13:15	Discrimination of honey bee biodiversity by using wing area measurment <b>Meral Kekeçoğlu</b>
13:15 - 14:00	<b>LUNCH BREAK</b>

**EMIRGAN  
HALL  
09:00 - 10:30**

**SYMPOSIUM / POLLINATION AND BEE FLORA  
CHARACTERIZATION OF POLLINATION AND/OR BEE FLORA**

**Moderator: Seunghwan Lee**

09:00 - 09:15	Bees and bee plants in UPLB La Granja Research and Training Station, Philippines: an inventory toward conservation of pollinators in an agricultural landscape <b>Jessica B. Baroga Barbecho</b>
09:15 - 09:30	Impact of agroforestry on pollinator diversity <b>Sheryl A. Yap</b>



09:30 - 09:45	SafeAgroBee project and Socioeconomic survey on beekeepers and farmers opinion on importance of pollination services <b>Fani Hatjina</b>
09:45 - 10:00	Determination of bee foraging plants in honey of Northern Oman <b>Aliya Mohamed Sajwani</b>
10:00 - 10:15	Seasonal Continuum of Honey Plants in the Central Region of Korean Peninsula <b>Seunghwan Lee</b>
10:15 - 10:30	The World of Pollinators - threats to an ecosystem service: Pressures on pollinators in Slovenia <b>Petra Bole</b>
10:30 - 11:15	<b>BREAK</b>

## EMIRGAN HALL

**11:15 - 12:15**

## SYMPOSIUM / POLLINATION AND BEE FLORA IMPROVING/ASSESSING POLLINATION PRACTICES

**Moderators:** *Lucas Garibaldi*

11:15 - 11:30	Ozone air pollution affects crop pollinators and pollination <b>Orianne Rollin</b>
11:30 - 11:45	Enhancement of Bee Pollinators by Growing Border Crop to Increase the Yield of Mustard Crop <b>Mohammed Sakhawat Hossain</b>
11:45 - 12:00	Effect of <i>Apis mellifera</i> (Hymenoptera: Apidae) on <i>Acacia crassicarpa</i> fruit production in seed orchards in Riau, Indonesia <b>Muhamad Pangky Sucahyono</b>
12:00 - 12:15	Combination of bee pollination of strawberry with fungicide application <b>Leonora Adamchuck</b>

**12:15**

**LUNCH BREAK**

## USKUDAR HALL 1 & 2

**14:00 - 16:00**

## SYMPOSIUM / BEE HEALTH BEES UNDER STRESS

**Moderators:** *Giovanni Formato & Fani Hatjina*

14:00 - 14:15	Sublethal effects of imidacloprid on immune gene expression in the stingless bee <i>Melipona quadrifasciata</i> <b>Anete Pedro Lourenco</b>
14:15 - 14:30	Determination of neonicotinoid and glyphosate residues in pollen samples from Croatia <b>Damir Pavliček</b>
14:30 - 14:45	Are detoxification enzymes induced similarly across honey bee castes in response to neonicotinoid exposure? <b>Ivanna V Kozii</b>
14:45 - 15:00	Study of the persistence of natural (formic and oxalic) and chemical (amitraz) acaricides in honeybees' body and in honey <b>Eleni Giannopoulou</b>
15:00-15:15	Effect of Lithium on Locomotor Activity, Circadian Rhythm and Social Behaviors of Honey Bees <b>Babür Erdem</b>



- 15:15 - 15:30 Bees under interactive stressors: the novel insecticides flupyradifurone and sulfoxaflor along with the fungicide azoxystrobin disrupt the gut microbiota of honey bees and increase  
**Yahya Al Naggar**
- 15:30 - 15:45 Changes in the lithium level in bee products as a consequence of anti-Varroa treatment  
**Balázs Kolics**
- 15:45 - 16:00 Best practices and innovations for sustainable beekeeping in Europe: the B-THENET Thematic Network  
**Giovanni Formato**
- 16:00 - 16:15 BREAK**

**USKUDAR  
HALL 1 & 2  
16:15 - 17:15**

**ROUND TABLE: MANAGING BEES WITHOUT CHEMICAL INPUTS**

**Moderator:** *Fani Hatjina*

- 16:15 - 17:15 MANAGING BEES WITHOUT CHEMICAL INPUTS  
**Panellists:** *Yahya Al Naggar & Paolo Fontana & Anna Locsin & Robert Chlebo & Tucka Saville*

**USKUDAR  
HALL 3  
14:00 - 16:00**

**SYMPOSIUM / APITHERAPY  
BIO-PHARMACOLOGY OF BEE PRODUCTS-LABORATORY AND  
ANIMAL STUDIES - 1**

**Moderator:** *Banu Yücel & Badiaa Lyoussi*

- 14:00 - 14:15 Propolis Isolated from Sulawesi Stingless bees have Promising Effects on Rat Endometriosis Model  
**Muhamad Sahlan**
- 14:15 - 14:30 Arbutus Unedo Honey and Propolis ameliorate acute kidney injury, acute liver injury, and proteinuria via hypoglycemic and antioxidant activity in streptozotocin-treated Rats  
**Soumaya Touzani**
- 14:30 - 14:45 Effect of antioxidant-rich propolis and bee pollen extracts against D-glucose induced type 2 diabetes in rats  
**Badiaa Lyoussi**
- 14:45 - 15:00 Investigation of drug interaction of propolis  
**Ali Sorucu**
- 15:00 - 15:15 The beneficial effect of fresh Moroccan bee pollen against blood, liver, and renal toxicity induced by methotrexate in rat  
**Badiaa Lyoussi**
- 15:15 - 15:30 The effectiveness of propolis administration at the level of ring form, trophozoite, schizont and merozoite parasitemia in mice infected with Plasmodium Berghei  
**James Selamat Hutagalung**
- 15:30 - 15:45 The effect of propolis extracts for neurodegenerative disease and its molecular mechanism  
**Sung Kuk Kim**
- 15:45 - 16:00 Relationships between Bee Pollen Biochemical Properties and Chronic Immobilization Stress in Rats  
**Hüseyin Şahin**

**16:00 - 16:15 BREAK**



**USKUDAR  
HALL 3  
16:15 - 17:45**

**SYMPOSIUM / APITHERAPY  
BIO-PHARMACOLOGY OF BEE PRODUCTS LABORATORY AND  
ANIMAL STUDIES - 2**

**Moderator: *Badiaa Lyoussi***

- 16:15 - 16:30 Anti-quorum Sensing, Anti-biofilm and Anti-swarming Activities of Anatolia Propolis Extracts  
***Sevgi Kolaylı***
- 16:30 - 16:45 Identification and Characterization of HIV-1-Reverse Transcriptase Inhibitors from Propolis Extracts  
***Oktay Yıldız***
- 16:45 - 17:00 The Investigation of The Effects of Nourishment With Drone Bee Larvae (Apilarnil) on The Reproductive Performance and Body Composition of Blue Streak Hap Broodstocks  
***Pınar Şahin***
- 17:00 - 17:15 Morphometric Characterization of Bee Races *Apis mellifera* L. from Different Regions of Turkey and Their Venom Potential for Apitherapy According to Geographical Differences  
***Ekin Varol***
- 17:15 - 17:30 Glucose oxidase, a bee-derived enzyme, as an important factor determining the antibacterial activity of bee pollen and bee bread  
***Juraj Majtan***
- 17:30 - 17:45 Analysis of the Effects of Propolis on Male Infertility Based on Sperm Count Using Experimental Animals  
***Maslichah Mafruchati***

**EMIRGAN  
HALL  
14:00 - 17:00**

**ROUND TABLE / APIMONDIA REGIONAL COMMISSION FOR AFRICA**

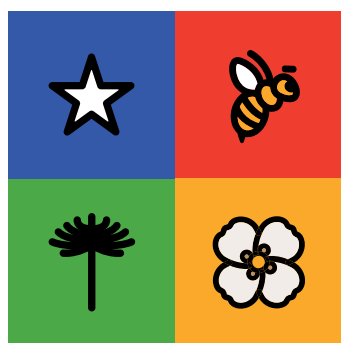
**Moderator: *Harun Baiya***

- Welcome Remarks
- Opening Address / New Members Welcome
- Apimondia Africa Symposium
- Tanzania Country Paper
- Update on Apimondia / FAO initiatives in Africa
- a. Green Jobs for Rural Youths
  - b. World Bee Day Celebrations
  - c. Bee Species Survey Outcome
- Regional Working Groups Work and Future
- Save the Congo Basin through Beekeeping
- Panel Discussion / Suggestions
- Presentation
- Closing Remarks

**18:00**

**CLOSING CEREMONY - HARBIYE AUDITORIUM**





# APIMONDIA

48<sup>TH</sup> INTERNATIONAL **CHILE**  
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September 4<sup>th</sup> - 8<sup>th</sup>, 2023

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# POSTER PRESENTATIONS

## APITHERAPY

- PP-001 The symbol of the bee in mythology, folk medicine  
**Daiva Šeškauskaitė**
- PP-002 Determination of physicochemical properties of naturally obtained bee venoms from anatolian honeybee ({Apis mellifera anatoliaca})  
**Aslı Elif Tanuğur Samancı**
- PP-003 Investigation of nutritional and antioxidant properties of Anatolian bee bread  
**Aslı Elif Tanuğur Samancı**
- PP-004 Beekeeping Products - A Source Of Flavonoid Compounds  
**Elena Lapynina**
- PP-005 Effect of propolis extract on genital warts  
**Shahram Dadgostar**
- PP-006 New method for treating Lyme disease with honey bee sting  
**Shahram Dadgostar**
- PP-007 Relationship between the antibacterial capacity of Ulmo honey with the contribution of {Eucryphia cordifolia} pollen: the Active Patagonia Factor (APF)  
**Gloria Montenegro**
- PP-008 Vibratory and airborne-sound signals of bee impact mood of human: What interests ? A pilot study  
**Claude Nonotte Varly**
- PP-009 Characterization of water extract of propolis collected from different regions of Turkey by HPLC, and determination of antioxidant potential  
**Orhan Değer**
- PP-010 Application hints for treating Lyme disease  
**Thomas Gloger**
- PP-011 Quantitation of the Myo-Inositol and D-Pinitol Levels as Promising Bioactive Constituents of Pine Honey and Elucidation of the Pathway by Analyzing Phloem of {Pinus Brutia} and the Secretion of Insect {Marchalina Hellenica}  
**İsmail Emir Akyıldız**
- PP-012 Air condensate composition of bee nest  
**Leonora Adamchuk**
- PP-013 Production of minerals enriched honey  
**Abed Vahidi**
- PP-014 Investigation of potential properties of ethanolic propolis extracts for COVID-19 treatment  
**Oktay Yıldız**
- PP-015 Development of health nutrition programs based on bee products for people during the post-COVID period  
**Leonora Adamchuk**
- PP-016 Synthesis Process of Aram 97 Honeybee Strain, as the First Native Livestock Breed in Iran”  
**Gholamhosein Tahmasbi**

## APITHERAPY

- PP-017 Anti-inflammatory effects of honey from the Philippine stingless bees (*Tetragonula biroï* Freise) on carrageenan-induced hind paw edema in ICR mice  
**Jussiaea Valente Bariuan**
- PP-018 Use of a standardized poplar propolis powder in the treatment of chronic diarrhea in dogs and cats  
**Philippe Garcia**
- PP-019 Use of bee venom in the treatment of locomotor pathologies in dogs  
**Philippe Garcia**
- PP-020 Changes in antioxidant capacity and exin layer of pollen fermented with kombucha and green tea  
**Harun Kuloğlu**
- PP-021 Physicochemical characterization and in vitro evaluation of the antioxidant and anticandidal activities of Moroccan propolis  
**Badiaa Lyoussi**
- PP-022 Mineral Composition of Turkish Chestnut Honey  
**Mukaddes Arigül Apan**
- PP-023 Apitherapy in Lithuania: past, present and future perspectives  
**Neringa Sutkeviciene**
- PP-024 Comparison of Antioxidant Activities of Some Pollen Varieties  
**Neslihan Çakıcı**
- PP-025 Gentle beekeeping and bee apitherapy a holistic health method that is the result of 40 years of research and has proven its effectiveness on human health  
**Catherine Flurin**
- PP-026 Effect of Anatolian Propolis on COVID-19  
**Aslı Elif Tanuğur Samancı**
- PP-027 Role of bee venom and its sublingual drops in autoimmune proteinuria  
**Ahmed Mohamed El Sabbagh**
- PP-028 Antioxidant potential of different honey varieties compared to BONUM HONEY  
**Adam Maciejec**
- PP-029 Toxicological and antimicrobial evaluation of BONUM HONEY  
**Adam Maciejec**
- PP-030 Acute inflammation attenuated by topical administration of Philippines stingless bee propolis through reduction of the pro-inflammatory cytokines, Tumor Necrosis Factor- $\alpha$ (TNF $\alpha$ ), Interleukin1 $\beta$  (IL-1 $\beta$ ), and Interleukin 6 (IL-6)  
**Maria Amelita Celino Estacio**
- PP-031 AAnti-nociceptive activity of Philippine stingless bee (*Tetragonula biroï* Friese) honey: Alleviation of neurogenic and inflammatory somatic pain but not cutaneous and visceral pain  
**Jussiaea Valente Bariuan**





## APITHERAPY

- PP-032 Influence of processing procedures on the antibacterial activity of bee pollen and propolis on some pathogenic bacterial strains  
**Ionut Moraru**
- PP-033 Honey vinegar improves plasma antioxidant status and plasma lipids in mice  
**Mosa Sharifi**
- PP-034 Propolis EPP-AF® loaded microcapsules – development, characterization and biological activities  
**Andresa A. Berretta**
- PP-035 Bee pollen samples from Turkey and Slovenia: A comparative study on their phenolic profiles, antioxidant, and anti-inflammatory activities  
**Nisa Beril Sen**
- PP-036 Honey Bee Products and COVID-19  
**Negar Karimi**
- PP-037 Mineral infused honey's effect on nutrient deficiencies  
**Mackenzie Nielsen**
- PP-038 The Effect Of N-Chromosome Royal Jelly, Queen Wax, And Bee Venom On Eczema And Psoriasis  
**Hossein Yeganehrad**
- PP-039 Covid-19 and Anatolian propolis: a case report  
**Resat Kubilay Irkan**
- PP-040 Effect of propolis on wound healing in sacrococcygeal pilonidal disease: a randomized controlled clinical trial  
**Duygu Öztürk**
- PP-041 Apitherapy in Bosnia and Herzegovina  
**Azra Licina Sinanovic**

## BEE BIOLOGY

- PP-042 Gibberellic acid alters feed intake, morphology and vitellogenin (VG) gene expression in Africanized "Apis mellifera" bees  
**Jean Samel Rocha**
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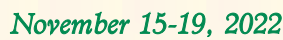
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# NOVEMBER 15-19, 2022

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