

Ricola Foundation
Nature & Culture



Véto-pharma
Committed to apiculture



21st COLOSS Conference

Bella Sky Conference & Event, ENTRANCE 3, Martha Christensens Vej 10,
2300 Copenhagen, Denmark, 22nd - 23rd September 2025

COLOSS Conference 2025 proceedings - A note from the president

Dear colleagues,

On behalf of the organizing team, I would like to welcome you to the 21st COLOSS conference.

We are organizing again a hybrid event so that many members from all over the world will be able to join us.

I would personally be delighted given that we will have more joint approaches globally. At the end of the day this is what COLOSS is all about. Connecting us honey bee people around the world.

I would like to sincerely thank all of the people who made this meeting possible. In particular, it would have again been impossible without the exceptionally organized efforts of Flemming Vejsnæs of the Danish Beekeepers Association.

Appreciation is also addressed to all contributors. Please be so kind as to actively contribute to our Core Project and/or Task Force discussions. Indeed, the success of this conference will depend on you. In particular, I would like to encourage all of you to consider joint experiments, joint fundraising and joint publications beyond our BEEBOOK.

Financial support for this meeting is kindly granted by the Ricola Foundation *Nature and Culture*, Veto Pharma, VITA beehealth, the Eva Crane Trust and IBRA.

I am looking forward to fruitful in person and online discussions with all of you and hope you will enjoy this conference.

I am delighted to see many new faces from all over our COLOSS globe!

Kind regards



Prof. Dr. Peter Neumann, President, COLOSS Association

ORGANIZER CONTACTS

Elise Maria Keller

COLOSS association

elise.keller@coloss.org

Local organizers

Flemming Vejsnæs

Danish beekeepers Association

fv@biavl.dk

TOPICS

Annual conference to provide updates, stimulate discussions and provide future research and policy directions.

Annual General Assembly:

- Presentations of sponsors and stakeholders of COLOSS
- Award for “COLOSS Best Student Poster Prize”
- COLOSS annual report, budget and discussion; Financial planning
- Changes of statutes
- **EC election and results presentation**

WHEN

Monday, September 22

- General Assembly (=GA) - Welcome, Keynote speech, EC election results
- Core Project & Task Force ‘State-of-the-Art’ presentations
- Core Project & Task Force sessions I

Tuesday, September 23

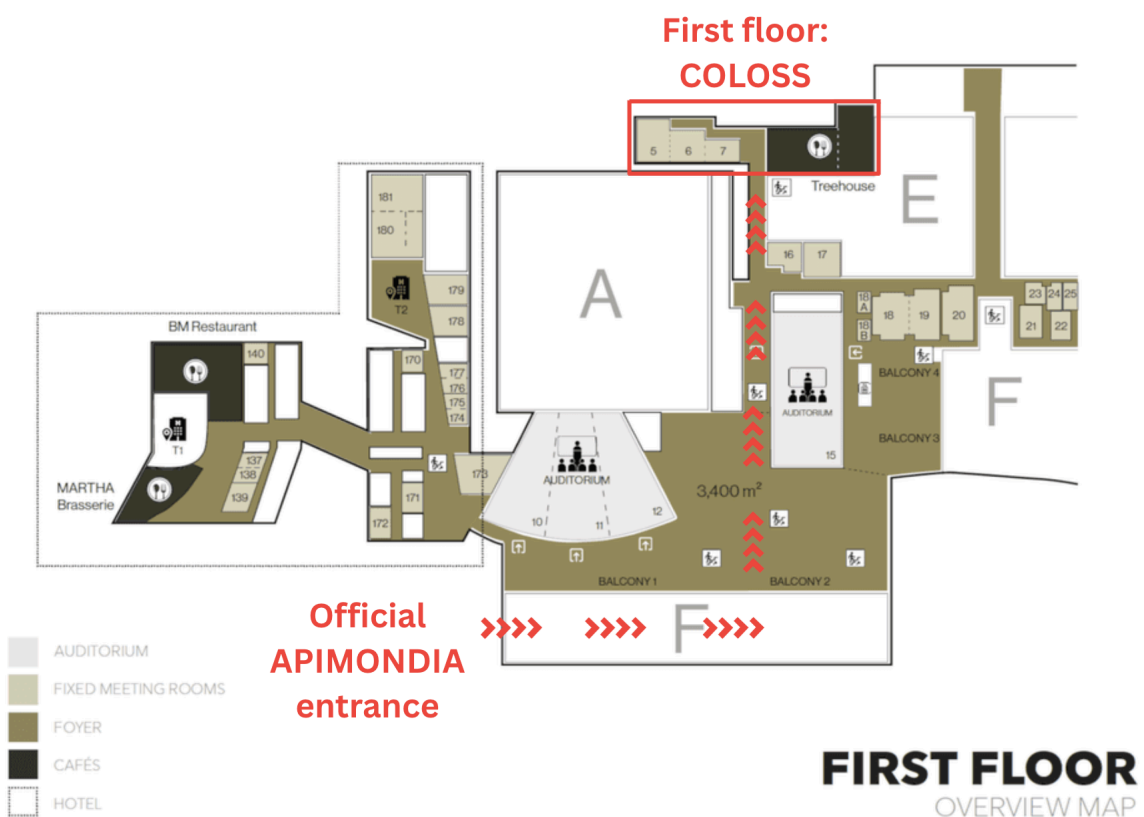
- Core Project & Task Force sessions II
- Core Project & Task Force ‘Update’ presentations
- General Assembly 2

WHERE

Physical

[Bella Sky Conference & Event](#), ENTRANCE 3, Martha Christensens Vej 10, 2300 Copenhagen, Denmark

- Reception room to start the congress: First floor, opposite Treehouse restaurant
- Free WIFI (Password: LYSON)
- Three Session rooms included in the large GA room; Poster rooms on site
- Social Dinner the Treehouse restaurant 22nd September 19:30; optional participation in APIMONDIA Evening Pub afterwards (Flyer attached)



Online / Hybrid

Zoom or Teams – (links to specific sessions will be distributed to registered participants)

POSTER SESSION

The best student poster will receive the “COLOSS Best Student Poster Prize” if the student is the corresponding author and willing to participate in the competition, as indicated in the registration.

The winner of the prize will be announced at the conference, at the COLOSS website and on social media.

Oral presentations can be given by the invited speaker, the sponsors and the chairs of the CPs/TFs as well as during the CP/TF sessions (please get in touch with the respective chair beforehand), the rest are posters only!

CERTIFICATES

Certificates will be sent by request (please let us know during the registration).

TRAVEL AND ACCOMMODATION

Map & Arrival from from airport, train station and by car

[Bella Sky Conference & Event, ENTRANCE 3, Martha Christensens Vej 10, 2300 Copenhagen, Denmark](#)

The Bella Center is Scandinavia’s largest conference and exhibition center, one of the world’s most experienced venues for large-scale events and with more than 50 years of experience with conferences and events. Bella Center Copenhagen features a central location in Copenhagen, just 6 kilometers away from Copenhagen Airport and 8 kilometers away from Copenhagen city center. Plenty of hotels of all categories (from high class 5-star hotels to quality budget hotels) are situated within a short walking distance from the Bella Center. The Metro brings you from the Bella Center to the city Center or the airport in less than 15 minutes at a price of 3 €.

Accommodation in Copenhagen

- **HOSTELS:**
 - City hub Copenhagen
 - Danhostel
- **HOTELS:**
 - CABINN Copenhagen 11 min by car, 35 min by public transportation
 - CABINN Metro 4 min by car, 13 min walk
 - Wakeup Copenhagen, Borgergade 19 min by car, 25 min by public transportation
 - Wakeup Copenhagen, Carsten Niebuhrs 9 min by car, 25 min by public transportation
 - Ibis Styles Copenhagen Orestad 12 min by car, 37 min by public transportation

AGENDA

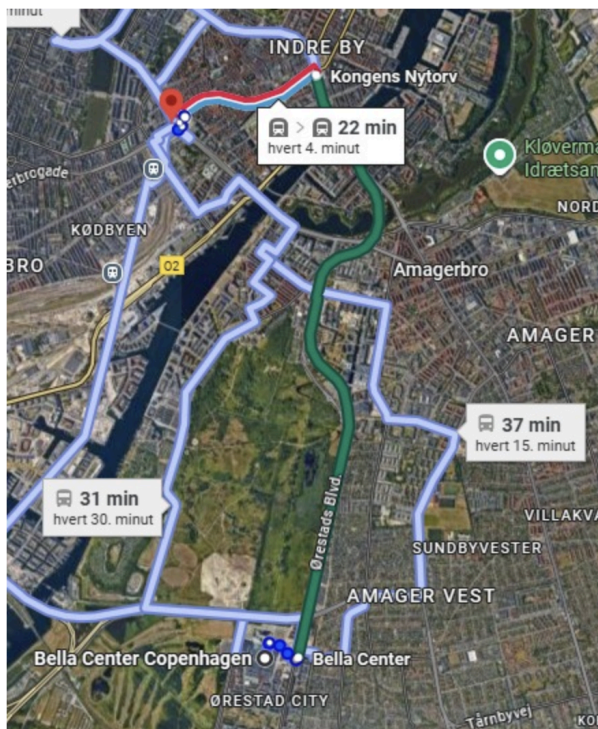
COLOSS CONFERENCE AGENDA 2025	
Sunday 21.09.2025	
Session 1 – Executive Committee Meeting 1	
19:00-20:30	Final organizational issues
Day 1 Monday 22.09.2025	
Session 2 – Welcome & Key Note	
08:30-09:00	Sign-in & poster set-up
09:00-09:30	Welcome by President and Local Organizing Chair
09:30-10:30	Keynote Prof. Dr. Gard Otis "Hornets (<i>Vespa</i> spp.): Worldwide Invasive Pests of Honeybees" (30+30 min)
10:30-11:00	Break, with drinks / snacks (possibility to visit posters)
Session 3 – COLOSS Updates	
11:00-12:30	Core Projects (N = 3), Task Forces (N = 9), invasive species & climate change (up to 5 min each)
12:30-13:30	Lunch (covered) (possibility to visit posters)
Session 4 – General Assembly I	
13:30-15:00	Gen. Presentations, financial planning, changes of statutes, <i>optional (Presentations of sponsors and stakeholders of COLOSS)</i> , EC election results
15:00-15:30	Break, with coffee / snacks (possibility to visit posters)
Session 5 – COLOSS TF/CP	
15:30-16:30	B-RAP // Varroa // Vespids
16:30-17:30	MONITORING // Nutrition // World honeybee health
17:30-18:30	BEEBOOK // Small hive beetle // Viruses
18:30 - 19:30	Social dinner (with option to go together to APIMONDIA Pub afterwards)
Day 2 Tuesday 23.09.2025	
Session 6 – COLOSS TF/CP - Poster session	
08:30-09:30	APITOX // New TF meeting // RNSBB
09:30-10:30	B-RAP // Poster session // Nutri TF
10:30-11:00	Break with drinks & snacks
Session 7 – COLOSS TF/CP - Poster session	
11:00-12:00	Varroa // BEEscholars // BEEBOOK
12:00-13:00	Poster session
13:00-14:00	Lunch
Session 8 – Updates & Plans	
14:00-15:00	Updates & plans Core Projects & Task Forces (4 min each)
Session 9 – COLOSS General Assembly II	
15:00-16:00	Discussions, final plans, & budget binding decision making; ceremony of Best Poster Prize & farewell
Session 10 – Executive Committee Meeting 2	
after conference	Debrief and follow-up, including press release

OPTIONAL: GET-TOGETHER AFTER SOCIAL DINNER

Anyone who would like to join us and our local organizer Flemming at the [APIMONDIA Evening Pub “Proud Mary”](#) in the city center of Copenhagen, is happily invited to come to:
Vesterbrogade 2a, 1620 Copenhagen, Denmark

You find the flyer of the venue also attached to the PDF of the proceedings.

From Bella Center it is a short ride with the subway and a nice walk or another short second metro ride directly to Vesterbrogade 2a.



LIST OF ABSTRACTS

Title	Authors	Student
Adaptive Bee Breeders Alliance	Kirby	No
Advances in Breeding and Selection for Varroa Resistance in <i>Apis mellifera</i> : A Multi-Trait Review of Genetic and Behavioral Approaches	Amin Abraham	Yes
Altering the expression of hsp and amp genes to potentially enhance stress tolerance by curcumin and quercetin containing nutritional supplement in honey bees (<i>Apis mellifera</i>)	Mackei	No
Application and validation of the LAMP-PCR technique for identifying bee pathogens in Chile	Aldea Sanchez	No
Beekeeping of Iran in serious trouble: necessity of a revolutionary change	Valizadeh	No
Detection of Tropilaelaps mites through environmental DNA (eDNA) testing	Aurell	No
Distribution of Honeybee Pathogens in Norwegian Apiaries	Rutkowski	Yes
Do mated <i>Vespa velutina</i> queens return to their nest?	Ernst	No
Effect of habitat and weather variables on the population of giant honey bee colonies on water towers in Nepal	Devkota	No
Effects of Different Pollen and Syrup Sources on Associative Learning in the Efe Honey Bee (<i>Apis mellifera anatoliaca</i>)	Dayioglu	No
Everything You Always Wanted to Know About Beekeeping (But Were Afraid to Ask): The Italian Contribution to the COLOSS B-RAP Expert Hotline and a Proposal for a Decentralised Dissemination Strategy	Bertola	No
Exploration of the isoxazoline class as possible <i>Varroa destructor</i> control and safety towards honey bees (<i>Apis mellifera</i>)	Jack	No
Field-realistic stressors alter the bumblebee gut microbial community	Diaz	Yes
Honey bee colony loss rates; management practices and risk factors for losses in Cameroon; Kenya; and Ethiopia: Insights from the 2023/2024 active beekeeping season	Nganso	No
How fall temperature affects overwintered honey bees	Frunze	No
Impact of Thymol-Rich Essential Oil on Gene Expression Profiles in <i>Varroa destructor</i>	Olgun	Yes
Infected neighbours: How managed bee pathogen transmission impacts wild bees	Probst	Yes
International analysis of pesticide persistence and toxicological impact on honey bees from commercially available beeswax	Özfen	Yes
Intra-Colony Transmission of Waxborne Honey Bee Viruses Following Storage and Irradiation	Pernal	No
Laboratory Evaluation of Phytochemicals Extracts of <i>Humulus lupulus</i> Against <i>Varroa destructor</i>	Bahreini	No
Main drivers of honey bee colony losses in Palestine	Alqurneh	No
Nutritional Influence on Honey Bee Immune Gene Expression and Colony Resilience During Pollen Scarcity	Arien	No

Nutritional modulation of immune responses and vitellogenin accumulation in honey bees facing viral challenges	Alberoni	No
PHYSIOLOGICAL STATUS FEATURES OF <i>APIS MELLIFERA</i> L. COLONIES DURING WINTERING IN HIVES WITH DIFFERENT THERMOPHYSICAL PROPERTIES	Yazlovitska	No
Re establishing and monitoring honeybees on the remote Cocos Keeling islands from existing native colonies	Carnell	No
Schonendes Monitoring für den ARTenschutz (SMART) - Non-invasive monitoring for insect protection	Eisenring	Yes
Seasonal variation of control efficacies of Varroa and Tropilaelaps mites in honey bee colony	Jung	No
Small hive beetles (cf.) can infest natural stingless bee nests in Africa	Muturi	Yes
Strengthening cross-border cooperation between the beekeeping; agricultural; and nature conservation sectors to foster efficiency in counter-measures against the Asian hornet	Schorkopf	No
Sub-lethal 2;4-Dichlorophenoxyacetic acid exposure adversely affects honey bee nursing and foraging functions.	Kim	No
Superorganismic Health Framework for Social Insects	Schläppi	No
The US Beekeeping Survey: Loss results from 2024/2025	Williams	No
Thermal stress related genes in honey bees (<i>Apis mellifera</i> Linnaeus) by RNA-seq analysis	Park	No
UrbanBEE: a multi-disciplinary approach to understand the value of bee hotels for the urban wild bee community	Morawetz	No
<i>Varroa destructor</i> : investigating the impacts of multiple mite infestations on <i>Apis mellifera</i> worker host development	Traynor	No
Where do beekeepers get their information from? Results from the U.S. Beekeeping Survey	Bruckner	No
Winter Brood Dynamics in US Honey Bee Colonies: A Three-Season Study	Rogers	No
Viral Communities in Nine Bee and Mite Species from Northern Thailand	Eui-Joon Kil	No
Characterisation of endogenous practices and knowledge of beekeepers in Burkina Faso; West Africa	Souhaïbou Sawadogo	Yes
Field evaluation of Allium Eriophyllum (wild leek) extract as an eco-friendly alternative against Varroa destructor in honey bee colonies	Mehrdad Mohebi	No
Expression of genetic potential through honey yield performance: a comparison of Carnica and locally selected bees under forest–steppe conditions of Ukraine	Vitalii Andriiuk	Yes

Participants

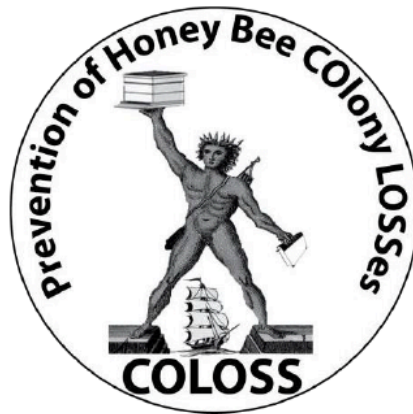
First name	Last name	Country
Abderrahim	Hammaidi	France
Abdulraouf	Amro	Egypt
Ahmed	Hegazi	Egypt
Aichurok	Mazhitova	Kyrgyzstan
Alberico	Franzin	Italy
Aleksandra	Splitt	Poland
Alessandra	Giacomelli	Italy
Alessandro	Cini	Italy
Alexis	Beaurepaire	Switzerland
Alison	Gray	United Kingdom
Amélie	Noël	Sweden
Amy	Vu	United States
Ana	Diéguez-Antón	Spain
Andreas	Hoppe	Germany
Aneta A.	Ptaszynska	Poland
Angelina Fathia	Osabutey	Israel
Anja	Probst	Switzerland
Anneli	Salonen	Finland
Annely	Brandt	Germany
Antonio	Nanetti	Italy
Antonios	Tsagkarakis	Greece
Aristotle	Petratos	Australia
Asli	Ozkirim	Turkey
Athanasios	Antonopoulos	Greece
Aygün	Schiesser	Turkey
Barbara	Locke	Sweden
Beatrice	Nganso	Kenya
Benjamin	Mbatha	Kenya
Benjamin	Dainat	Switzerland
Beqe	Hulaj	Albania
Bhargava	Hunkunda Radhakrishna	India
Bjorn	Dahle	Norway
Brian	McCall	New Zealand
Brooke	Decker	United States
Cameron	Jack	United States
Cecilia	Costa	Italy
Chiara	Braglia	Italy
Chuleui	Jung	Korea; Republic of
Claudia	Garrido	Germany
Dan	Aurell	United States
Daniel	Schläppi	Switzerland
Daniela	Hölzle	France

Daniela	Arredondo	Uruguay
Daniele	Alberoni	Italy
Dany	El-Obeid	Lebanon
Delphine	Panziera	Netherlands
Derek	Mitchell	United Kingdom
Diego	Eduardo Vazquez	Uruguay
Dirk Louis	Schorkopf	Austria
Dominique	Brandt	Germany
Egehan	Özfen	Ireland
Elise Maria	Keller	Italy
Eui-Joon	Kil	Korea; Republic of
Evaggelia	Arapostathi	Greece
Fani	Hatjina	Greece
Flavia Vittoria	Chianese	Italy
Flemming	Vejsnaes	Denmark
Franco	Mutinelli	Italy
Gard	Otis	Canada
Gennaro	Di Prisco	Italy
Geoff	Williams	United States
Giles	Budge	United Kingdom
Giovanni	Cilia	Italy
Giuseppe	Cefalo	Italy
Haitham	Ramadan	Egypt
Halile	Fidèle	Benin
Harmen	Hendriksma	Netherlands
Haron	Masai	Kenya
Heather	Broccard-Bell	Canada
Heather	Graham	Netherlands
Helen	Mooney	Ireland
Hemma	Koeglberger	Austria
Huoqing	Zheng	China
Hyunjee	Kim	Korea; Republic of
Ibrahim	Abd El-Samea El-Ghabawy	Egypt
Ismail Seleman	Mussa	Tanzania; United Republic of
Ivan	Lawag	Philippines
Jaber	Amin Abraham	Austria
Jacek	Jachuła	Poland
Jack	Silberrad	United Kingdom
Jakkrawut	Maitip	Thailand
Jamie	Ellis	United States
Janja	Filipi	Croatia
Jean-Daniel	Charriere	Switzerland
Jesus	Yaniz	Spain
Jevrosima	Stevanovic	Serbia
Joachim	Rodrigues De Miranda	Sweden
Joel	Benson	Nigeria

Johann	Fischer	Germany
José	Contreras	Chile
Joseph	Palmer	United States
Kairi	Raime	Estonia
Kaitlin	Deutsch	United States
Kamilu Ayo	Fasasi	Nigeria
Karen	Gaerlan	Philippines
Katia	Gramacho	Brazil
Kedar	Devkota	Nepal
Kirsten	Traynor	Germany
Krzysztof	Rutkowski	Norway
Laima	Blazyte Cereskiene	Lithuania
Laura	Bortolotti	Italy
Lena	Barascou	United States
Leon	Reinhold	Germany
Leonidas	Charistos	Greece
Linde	Morawetz	Austria
Linn Fenna	Groeneveld	Norway
Lisa	Dickel	Sweden
Liydmyla	Yazlovitska	Ukraine
Lorenzo	Goglia	Italy
Lotta	Fabircius Kristiansen	Sweden
Luis	Velasquez	Chile
M. Shantal	Rodriguez Flores	Spain
Magdalena	Wilde	Poland
Małgorzata	Bieńkowska	Poland
Marc	Schaefer	Germany
Marcela	Diaz	Ireland
Maria	Bouga	Greece
Marianne	Meijboom	Netherlands
Marin	Kovačić	Croatia
Marina	Meixner	Germany
Martin	Gabel	Germany
Mary F	Coffey	Ireland
Mate	Mackei	Hungary
Mehrdad	Mohebi	Iran; Islamic Republic of
Melaku Bekele	Tufa	Ethiopia
Melanie	Kirby	United States
Melina	Eisenring	Switzerland
Michael	Opitz	Austria
Michael	Muturi	Switzerland
Michel	Bocquet	France
Michela	Bertola	Italy
Miray	Dayioglu	Turkey
Miriam	Filipova	Slovakia
Miriam	Cavaco	Portugal

Mišo	Babić	Croatia
Mohamed	Kandel	Egypt
Mohammad	Alqurneh	Palestinian Territory
Mudssar	Ali	Pakistan
Muhammad Babar Shahzad	Afzal	Pakistan
Natasha	Garcia Andersen	United States
Neloy	Chakroborty	India
Nikola	Kezic	Croatia
Nischal	Kafle	Nepal
Norman	Carreck	United Kingdom
Nuno	Capela	Portugal
Nurit	Eliash	Israel
Olajumoke	Ojelabi	Nigeria
Ole	Kilpinen	Denmark
Oleksiy	Losyev	New Zealand
Olga	Frunze	Korea; Republic of
Paola	Carulli	Italy
Pascale	Elbared	Lebanon
Pat	Bono	United States
Patricia	Veiga	Canada
Patricia Loreto	Aldea Sanchez	Chile
Paula	Carnell	United Kingdom
Pegah	Valizadeh	Iran; Islamic Republic of
Per	Kryger	Denmark
Peter	Neumann	Switzerland
Pilar	Santolaria	Spain
Piotr	Medrzycki	Italy
Quentin	Rome	France
Raffaele	Dall Olio	Italy
Raquel	de Sousa	Portugal
Rassol	Bahreini	Canada
Ricarda	Scheiner	Germany
Robert	Chlebo	Slovakia
Robert	Brodschneider	Austria
Roberta	Santopietro	Italy
Robyn	Underwood	United States
Ru	Wikmann	Netherlands
Rui	Goncalves	Portugal
Sabrina	Ehrenberg	Germany
Salma	Bakhchou	Morocco
Sandra	Rojas Nossa	Spain
Sedat	Yelkovan	Turkey
Selina	Bruckner	United States
Séverine	Kotrschal	Netherlands
Shibonage Kulindwa	Mashilingi	Tanzania; United Republic of
Silvio	Erler	Germany

Simone	Tosi	Italy
Simone	Cutajar	Italy
Soraia	Santos	Portugal
Souhaïbou	Sawadogo	Burkina Faso
Stephanie	Rogers	United States
Stephanie	Franco	France
Stephen	Msemo	Tanzania; United Republic of
Steve	Pernal	Canada
Steve	Rogenstein	Germany
Tevž	Levstek	Slovenia
Thomas	Steeger	United States
Tugce	Olgun	Turkey
Uli	Ernst	Germany
Usman	Dukku	Nigeria
Vahid	Ghasemi	Iran; Islamic Republic of
Vandana	Mehrwar	India
Victoria	Tomkies	United Kingdom
Victoria	Soroker	Israel
Vincent	Dietemann	Switzerland
Vitalii	Andriiuk	Ukraine
Viviana	Valenzano	Italy
Yael	Arien	Israel
Youngjin	Park	Korea; Republic of
Zdenka	Babič	Croatia



supported by



Appendix I

INVITATION TO ATTEND BEESCHOLARS TF SESSION

Dear all,

we hope this message finds you well. We are pleased to invite you to participate in the upcoming BEESHCOLARS Task Force session, that will take place during the 21st COLOSS Conference, in September 23rd. This meeting will provide a valuable opportunity to discuss BEESCHOLARS achievements in 2025, share insights, and to collaborate all together on key priorities for our young researchers in 2026 activities.

Details:

Date: September 23rd 2025

Time: 11am CEST

Duration: 1 hour

We'll be amazed to welcome you in person (during the 21st COLOSS Conference 2025, Sep. 22-23, Copenhagen, Denmark), but, if you'll prefer to attend via web, please find below all the needed details to join the meeting:

Platform: ZOOM

<https://us06web.zoom.us/j/85875633212?pwd=r2jKam1bMMCVQTBYwzGxJQoRGWHqlr.1>

ID: 858 7563 3212

Keyword: 313912

Agenda:

1. short introduction of the last year's activities
2. plans for the next year-webinars,training schools,conference
3. Young researchers session: we'll be there to listen to all your great ideas/suggestions/experiences

If you have specific topics you would like to add to the agenda, feel free to reply to this email with your suggestions.

We look forward to meeting you at the BEESCHOLARS session!

Best regards,

Alessandra and Aygun