

STUDY  
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FOR LIFE SCIENCES

### **ELLS Plant Health Grand Challenges competition spring 2023**

ELLS MSc students! Enter the Plant health Grand challenges competition and **win** an entry to the [12th INTERNATIONAL CONGRESS OF PLANT PATHOLOGY](#) in Lyon 20-25 August!

#### Basic information

**Time period:** Introduction online 15 March and end with student presentations 16 May

**Online lectures:** 15 March-11 May (usually Wednesdays at 17:00-17:30 CET followed by questions; see schedule below). Note that the lectures will be recoded and shared to students in the competition.

#### What you as student need to do in five easy steps?

- 1) Link to online registration via the online [form](#) by 26 February and wait to be assigned a group (groups will be announced around 1 March).
- 2) In your group choose one of the following challenges which are connected to the online lecture series or come up with your own Plant health challenge:
  - Insect invasions and plant health (Lecture 1)
  - Reducing chemicals used in plant protection by biologicals Climate change (Lecture 2)
  - Plant viruses as emergence pathogens (Lecture 3)
  - Climate change (Lecture 4)
  - Reducing chemicals used in plant protection by biodiversity (Lecture 5)
  - Weed biodiversity (Lecture 6)
- 3) Get inspired by the online lectures!  
See the schedule below
- 4) Communicate your solution!

- Frame the challenge by describing it. What is the current status? Where are the emerging threats? How does the future look like? (max ½ A4 page, New Times Roman 12 pt.)
- What are your solutions? (max 1 page)
- What are the biggest hurdles in implementing your solution? What are the possibilities and how can you build momentum around these? (max ½ page)

Feel free to include figures and images but remember to stay within the limit of two A4 pages.

Oral presentation on the 16 of May: In maximum five minutes present your challenge and solution with the help of slides. This will be followed by five minutes of questions from the panel.

5) Wait for the jury's evaluation!

An international jury will evaluate your written report and oral presentation based on how you framed the challenge as well as the innovativeness, newsworthiness, social benefit, and implementation potential of your solution.

**The winning group will get all the expenses covered to go to Plant health Grand challenges competition and win an entry to the 12th INTERNATIONAL CONGRESS OF PLANT PATHOLOGY in Lyon 20-25 August!**

### Schedule

**Lecture 1:** Intro to Plant health grand challenges and Insect invasions and plant health (CZU, Czech Republic)

Jiří Trombik: Global drivers of historical insect invasions: Case of true fruit flies (Diptera: Tephritidae) and bark beetles (Coleoptera: Curculionidae) and Soňa Zimová: Role of host breadth determinants in (insect) invasiveness potential

Date: 15 March at 17:00 CET

**Lecture 2:** Reducing chemicals used in plant protection (SLU, Sweden)

Possibilities and challanted biologicals use in developing countries (Erik Alexandersson and Mesia Ilomo)

Date: 29 March at 17:00 CET

**Lecture 3:** Plant Health Challenge: Plant viruses as emergence pathogens (WULS, Poland)

*Plant cell apoplast as a vital component in resistance and susceptible plant – virus interactions*; [Edmund Koziel and Katarzyna Otulak-Koziel, Institute of Biology, Department of Botany, Warsaw University of Life Sciences]

Date: 12 April at 17:00 CET

**Lecture 4:** Climate change (BOKU, Austria)

Root endophytes - powerful biopesticides in the time of climate change? (Krzysztof Wieczorek)

Climate change effects on invasive pest arthropods (Andreas Walzer)

Date: 19 April at 17:00 CEST

**Lecture 5:** Plant Health Challenge: Reducing chemicals used in plant protection by biodiversity (L'institut Agro, France)

1. Integrating biodiversity for reducing pesticides: the case of mediterranean vineyards (EKazakou, Elsa Ballini, Marie-Stephane Tixier, L'Institut Agro, Montpellier)

2. Screen, evaluate and understand induced immunity in apple orchards (Alexandre Degrave, L'Institut Agro, Angers)

Date: 26 April at 17:00 CEST

**Lecture 6:** Invasive weeds (UHOH, Germany)

Weed species diversity (UHOH, Germany) Approaches to increase weed species diversity in agricultural land and their effect on crop and fauna (Roland Gerhards, Matthias Schumacher)

Date: 11 May at 17:00 CEST

**Student presentations**

Student hand-ins of written document (2-pager): 15 May

Student oral presentations: 16 May at 17:00-19:00 CEST