## ELLS SUMMER SCHOOL

## **Contributing Institutes**

University of Hohenheim, Faculty of Agricultural Sciences and Faculty of Natural Sciences:

- Parasitology
- Applied Entomology
- Chemical Ecology
- Veterinary Medicine
- Molecular Microbiology
- Functional Microbiology of Livestock
- Phytopathology
- Immunology
- State Institute for Apiculture

### Join us!



### What is ELLS

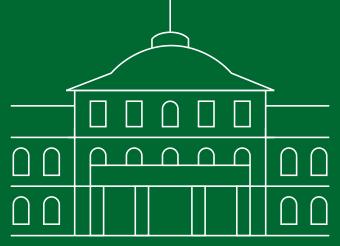
The Euroleague for Life Sciences (ELLS) is a network of leading universities cooperating in the fields of Natural Resource Management, Agricultural and Forestry Sciences, Life Sciences, Animal Sciences, Nutrition Sciences, Food Sciences, and Environmental Sciences. The focus of ELLS is on joint teaching and learning, student and staff mobility and quality assurance.

### **Further Information**

For further information please visit our websites: www.euroleague.uni-hohenheim.de www.euroleague-study.org

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### **Summer School**

# Pathogens, Parasites and their Hosts

Ecology, Molecular Interactions and Evolution of Animals, Plants and their Antagonists



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## AT A GLANCE

# **Course Contents**

Pathogen-host interactions are a major focus in the work of several institutes at the University of Hohenheim. In a joint initiative of the Faculties of Agricultural Sciences and Natural Sciences, host-pathogen interactions will be the subject of a 3 weeks summer school in July 2024.

The summer school will introduce into the ecology, molecular interactions, and evolution of pathogen-host relationships with respect to

- animals,
- plants,

and microorganisms.

- These topics will be addressed in a series of lectures,
  - laboratory experiments,

and excursions.

Following an integrative approach, the aim of the summer school will be a comparison of different biological systems, showing both striking similarities and surprising peculiarities.

# **Key Words**

How pathogens meet their hosts:

- Behavioural mechanisms
- Chemical and physical recognition
- Life cycles and zoonoses
- Mechanisms of invasion

Host resistance:

- · Host resistance in plants and animals
- Secondary plant compounds
- Innate immunity
- Immunology of inflammation

How to overcome host defence:

- Immune suppression
- Antigenic variation
- Molecular mimikry
- Toxins

Coevolution:

- Adaptation between host and pathogen
- Breeding of resistant plants and animals
- Resistance genes in plants and animals
- Multitrophic level interactions

	At a glance
Duration	3 weeks - July 1 to July 18, 2024
Credits	7,5 ECTS
Participants	The course is aimed at students of biology and agricultural sciences or related subjects who have already passed university elementary courses of at least 2 years
Course structure	Mix of lectures, laboratory experience and excursions
Exam	Written exam at the end of the Summer School + group presentations
Location	University of Hohenheim, 70599 Stuttgart, Germany
Organiser	Euroleague for Life Sciences, Office of Hohen- heim
Costs	500 € for housing and a security deposit of 50 EURO. Travel expenses to Hohenheim and food are not included
Call for applications	Please use online application provided under http://www.euroleague-study.org/en/pph
Deadline for appli- cation	April 2, 2024 or until places are filled

