

# Entomology Summer Course

*'Hands on' Course on Arthropods  
of Medical and Veterinary Significance:  
A global perspective, from theory to practice*

**5<sup>th</sup> Edition: 7-11 July, 2025**

## Provisional programme and practical information

National Veterinary School of Toulouse, France

Continuing education in Medical and Veterinary Entomology

<https://entomologysummercourse.com/>



## SPONSORSHIP



The Parasitology and Entomology team of the National Veterinary School of Toulouse, France, organises an entomology course to be held from the 7<sup>th</sup> to the 11<sup>th</sup> of July 2025. The course will highlight topics such as arthropod-borne diseases, resistance in arthropod populations, control tools, principles of laboratory rearings, and morphological identification of arthropods of medical and veterinary importance.

The course will encompass several arthropod groups, namely sand flies, mosquitoes, *Culicoides* spp., Tabanidae, Muscidae, Simuliidae, fleas, bedbugs and ticks. Lectures will generally take place in the morning, while the afternoon will be dedicated to laboratory and field work.

## Practical information

**Course venue:** National Veterinary School of Toulouse, 23 chemin des Capelles, 31076 Toulouse, France

**Fees:** 480 euros for students (MSc and PhD students), 950 for EVPC and ACVM residents (if not student), 1600 euros for other participants.

Fees include teaching and laboratory materials, transportation for field work, coffee, lunch breaks and social events.

Transport to and from Toulouse, accommodation and breakfast, and some evening dinners are not included in the fees.

**Application to the course:** please send a CV, a motivation letter in which should be mentioned the reasons you apply, the name of two referees to Emilie Bouhsira at the following email address: [contact@entomologysummercourse.com](mailto:contact@entomologysummercourse.com)

Please note that all documents must be provided in English, otherwise the application will not be considered.

The selection of candidates will be based on motivation letter, CV and application date (the earlier the better).

**Deadline for application:** 15<sup>th</sup> of April 2025

**Language:** The official language of the course will be English

**Target participants:** EVPC and ACVM residents and diplomates, postgraduate (MSc, PhD) students, Post-Doc scientists, research fellows, entomologists, laboratory staff.

- **Scholarships:**

1. **Vetoquinol-SFP Young Scientist Award:** Supported by the veterinary pharmaceutical multinational firm Vetoquinol ([www.vetoquinol.com](http://www.vetoquinol.com)), in partnership with the French Society of Parasitology (SFP), this grant will cover the accommodation and travel expenses (sponsored by Vetoquinol) and registration fees (courtesy of SFP).

The Young Scientist Award aims to support the work of a young PhD student from and based in a Low and/or Middle-Income Country for her/his outstanding contribution to the field of medical and veterinary entomology.

Candidates should fulfil the following criteria:

- be under the age of 35 years;
- be a PhD student at the time of application;
- come from a Low and/or Middle Income Country;
- must have authored at least one publication in international peer-reviewed journals, or made a presentation in an international congress, as part of their PhD project and taken part to relevant scientific activities in the field of parasitology.

To apply, please provide a CV, list of publications and oral communications, the name of two referees and a motivation letter, and indicate clearly in your email that you are applying for the scholarship. All documents must be provided in English and sent to

[contact@entomologysummercourse.com](mailto:contact@entomologysummercourse.com)

## 2. EVPC scholarship

The European Veterinary Parasitology College (EVPC- <https://www.eurovetpar.org/>) will provide 1 scholarship of 500 euros for 1 EVPC resident.

How to apply: to be indicated in your motivation letter, explaining clearly why this scholarship would be of help.

### How to get to Toulouse

By plane: Toulouse-Blagnac international airport features direct flights to 74 destinations mostly in Europe and Northern Africa with a few additional seasonal long-haul connections.

Many domestic flights from main French cities also run daily.

From the airport to Toulouse downtown:

- **Tram**: the tram line T2 connects Toulouse centre with the airport and back, running every 15 minutes. The tram connects with metro Line A at the stop 'Arènes' and metro Line B at the stop 'Palais de Justice'.
- **Bus and coach**: Shuttle buses to Toulouse city centre, run from the airport, outside Hall B, every 20 minutes. Faster than the journey by tram, it takes

approximately 20 minutes to reach the city centre by bus, stopping at 'Compans Caffarelli' or 'Jeanne d'Arc' (both on Metro Line B), or 'Jean Jaurès' (Metro Lines A and B) or 'Toulouse-Matabiau' railway station.

**By train:** Toulouse can be reached by train from other French cities (Toulouse-Matabiau railway station).

**By car:** Toulouse can be reached by car using existing major highways (National road tax). Within the city, however, the parking is extremely limited and very expensive. The vet school has however a large car park where you can leave your car.

### **Accommodation**

The vet school is located in a residential neighborhood with limited public transportation, especially in the evening.

We recommend the **Residhome Occitania**, particularly for its location in-between the city center [public transportation (tram (Lines T1 and T2) and metro (Line A)) are at 5 minutes-walking distance] and the vet school. It is also directly reachable from the airport using the tramway.

The hotel is equipped with a swimming pool, which could be a great way to relax after a whole day of science! The weather in Toulouse is indeed usually very warm at the end of August.

Location : 93, avenue de Lombez - 31300 Toulouse

Tel. : +33 (0)5 61 44 08 34

E-mail : [toulouse.occitania@residhome.com](mailto:toulouse.occitania@residhome.com)

<https://www.residhome.com/residence-hoteliere-aparthotel-toulouse-185.html>

**Studio:** approximately 61 euros/night (room with double-bed or two single beds and equipped kitchen)

**One-bed room apartment:** approximately 73 euros/night (in addition to the studio equipment, a leaving room with convertible sofa)

Other options, closer to the vet school but further away from the city center:

<https://www.campanile.com/fr/hotels/campanile-toulouse-ouest-purpan>

<https://www.appartcity.com/fr/destinations/midi-pyrenees/toulouse/toulouse-purpan-aeroport.html>

<https://www.hotel-bb.com/fr/hotels/toulouse-purpan.html>

<https://www.accorhotels.com/fr/hotel-0445-novotel-toulouse-purpan-aeroport/index.shtml>

<https://www.residhome.com/residence-hoteliere-aparthotel-toulouse-199.html>

And also: <https://www.airbnb.fr>

To help your search, the neighborhood of the vet school is called "Lardenne".

## List of lecturers

Claire Garros, M.Sc., Ph.D.

Centre of agricultural research for development (CIRAD), Montpellier, France

Carla Maia, DVM, Ph.D., HDR, Dip. EVPC

Institute of Hygiene and Tropical Medicine, New University of Lisbon, Portugal

Jorian Prudhomme, M.Sc., Ph.D.

Université de Reims Champagne-Ardenne, France

Jean-Philippe Martinet, D. Pharm., M.S.c., Ph.D.

Université de Reims Champagne-Ardenne, France

Fabrice Chandre, DVM, Ph.D., HDR

Institute of Research for Development (IRD), Montpellier, France

Sylvie Cornélie, M.Sc., Ph.D., HDR

Institute of Research for Development (IRD), Montpellier, France

Bethsabée Scheid

Institute of Research for Development (IRD), Montpellier, France

Audric Berger, M.Sc., PhD student

Institute of Research for Development (IRD), Montpellier, France

Steve Torr, B.Sc., M.Sc., Ph.D.

Liverpool School of Tropical Medicine, Liverpool, United Kingdom

Emmanuel Liénard, DMV, M.Sc., Ph.D., HDR, Dip. EVPC

EBVS® European Veterinary Specialist in Parasitology

National Veterinary School of Toulouse (ENVT), Toulouse, France

Philippe Jacquiet, DVM, Ph.D., HDR, Dip. EVPC

EBVS® European Veterinary Specialist in Parasitology

National Veterinary School of Toulouse (ENVT), Toulouse, France

Marc Desquesnes, DVM, HDR, Ph.D.

Centre of agricultural research for development (CIRAD), Montpellier, France

Aleksandra Ignjatović Čupina, M.Sc., Ph.D

University of Novi Sad, Faculty of Agriculture, Serbia



Emilie Bouhsira, DMV, M.Sc., Ph.D., Dip. EVPC  
EBVS® European Veterinary Specialist in Parasitology  
National Veterinary School of Toulouse (ENVT), Toulouse, France

Jean-Michel Bérenger, M.Sc.  
Laboratory of Insect and Diagnostic (LDI)  
IHU Méditerranée Infection, UMR Vecteurs – VITROME, Marseille, France

Lorenza Beati, M.D., Ph.D.  
Georgia Southern University,  
The US National Tick Collection, USA

Richard Birtles, B.Sc, Ph.D.  
University of Salford, Manchester, United Kingdom

Vincenzo Lorusso  
DVM (Hons), PhD, MDP, DipACVM, DipEVPC  
European Commission, Brussels, Belgium  
University of Salford, Manchester, United Kingdom

## **Preparatory work and final examination**

The attendees will receive a selection of papers covering the topics that will be developed during the course at least 15 days prior to the beginning of the summer school. The final examination will be made of 10 multiple choice questions and/or short answering questions.

A course feedback questionnaire will be given at the beginning of the course to each participant and will be collected at the end of the course.

## Provisional programme

*NB: This is a provisional programme: the participation of some speakers needs confirmation – the theme of the lectures will not change*

### Monday 7<sup>th</sup> of July 2025

**08h00:** Welcome coffee

08h30-12h30: Lectures

**08h30-10h00:** Introduction to medical and veterinary entomology, *lecturer to be confirmed*

**10h00-10h30:** Coffee break

**10h30-11h30:** Bio-ecology and pathogenic role of *Culicoides* spp., Dr Claire Garros

**11h30-12h30:** Bio-ecology and pathogenic role of sandflies, Dr Carla Maia

**12h30-13h30:** Lunch break

13h45-17h30/18h00: Practical and Field work

**13h45 - 15h00:** Principles of trapping of *Culicoides* spp. and sandflies, Dr Claire Garros & Dr Jorian Prudhomme

**15h00-16h00:** Principles of morphological identification of *Culicoides*, Dr Claire Garros

**16h00-16h30:** Coffee break

**16h30- 18h00:** Principles of morphological identification of sandflies and dissection of female sandflies, Dr Jorian Prudhomme

*Social event all together*

## Tuesday 8<sup>th</sup> of July 2025

08h30-12h30: Lectures

**08h30-10h00: Mosquito-borne diseases: a One Health perspective**, Dr Jean-Philippe Martinet

**10h00-10h30: Coffee break**

**10h30-11h30: Mosquito control and public health**, Dr Fabrice Chandre

**11h30-12h30: Mechanisms of insecticide resistance in mosquitoes**, Dr Sylvie Cornélie

**12h30-13h30: Lunch break**

13h45-18h00: Practical work

**13h45-17h00: Phenotypic diagnostic of resistance in mosquitoes**, Bethsabée Scheid, Audric Berger

*Free evening*

## Wednesday 9<sup>th</sup> of July 2025

08h30-12h30: Lectures

**08h30-10h00: Bio-ecology of *Glossina* spp. and African trypanosomiasis**, Prof Steve Torr

**10h00-10h30: Coffee break**

**10h30-11h30: Bio-ecology and pathogenic roles of stable flies**, Dr Emmanuel Liénard

**11h30-13h00: Principle of alternative control tools against stable flies and tabanids and visit of traps on the ENVT campus**, Prof Philippe Jacquet and Dr Marc Desquesnes

**13h00-13h45: Lunch break**

14h00-17h30: Lecture and practical work

**14h00-17h30: Bio-ecology and pathogenic roles of Simuliidae and principles of morphological identification**, Prof Aleksandra Ignjatović Čupina

*Social event all together*

## Thursday 10<sup>th</sup> of July 2025

08h30-12h30: Lectures and practical work

**08h30-09h30: Fleas and flea-borne pathogens**, Dr Emilie Bouhsira

**09h30-10h30: Bio-ecology and pathogenic role of bedbugs**, Jean-Michel Bérenger

**10h30-11h00:** Coffee break

**11h00-12h00: Identification of fleas and bedbugs (practical work)**, E. Bouhsira & JM. Bérenger

**12h00-12h30: Demonstration of bedbugs detection by dogs – Eco-Flair company (to be confirmed)**

**12h30-13h30:** Lunch break

Afternoon: Social event

**15h00-17h00: Guided visit of Toulouse**

*Free evening*

## Friday 11<sup>th</sup> of July 2025

08h30-12h30: Lectures

**08h30-10h00: Biology, Ecology and Phylogeny of ticks**, Prof Lorenza Beati

**10h00-10h30:** Coffee break

**10h30-11h30: Zoonotic tick-borne diseases: Lyme Disease and Bartonellosis**, Prof Richard Birtles

**11h30-12h30:** Workshop on “Science communication...to non-entomologists”, Dr Vincenzo Lorusso

**12h30-13h30:** Lunch break

13h45-18h30: Practical work and final examination

**13h45-17h00: Principle of tick morphological identification, Prof Lorenza Beati**

**17h00-17h30: Coffee break**

**17h30: Final examination**

**18h00: Hands-over course certificates**

*End of the course*

**20h30: Gala diner**