

EUROPE: 17 PhD positions in MSCA DN project INCITE

Seventeen PhD positions are available in the Marie Skłodowska-Curie Doctoral Training Network “INCITE– Insect Clock Initial Training Experience”.

Our network researches insect chronobiology with the aim of developing applications in insect production for feed and food, pest control, as well as basic research. We investigate the circadian and annual clocks, diapause, seasonality, sleep, endocrinology, circadian physiology and chronometabolism using combinations of established insect model species (i.e. *Drosophila melanogaster*) and emerging models, pest species, and economically important or beneficial insect (aphids, linden bugs, bumble bees, moths and butterflies, black soldier fly, houseflies, cockroaches).

INCITE will provide advanced multidisciplinary multi-level scientific training that spans from molecular genetics tools, genetic engineering, genomics and transcriptomics, immunocytochemistry and electrophysiology to behavioural assays to foster the next generation of European experts in an ambitious and multidisciplinary research environment in chronobiology and entomology. For details see also project webpage (<https://incite.entu.cas.cz>).

The following PhD projects are available:

DC1: Non-Drosophila insect neuropeptides: their role in reproduction and seasonality

Host supervisor: Dr. David Dolezel (Biology Centre, Ceske Budejovice, Czech Republic)

DC2: New and optimized reverse genetic tools for diapause research in non-model insects

Host supervisor: Dr. Vlastimil Smykal (Biology Centre, Ceske Budejovice, Czech Republic)

DC3: Clock, photoperiodic and neuroendocrine control of fly body size

Host supervisor: Host supervisor: Prof. Christian Wegener (University of Würzburg, Germany)

DC4: Manipulating aphid genes to disentangle their photoperiodic system

Host supervisor: Prof. David Martinez-Torres (University of Valencia, Spain)

DC5: Circadian plasticity of synapses in the visual system of insects

Host supervisor: Prof. Elzbieta Pyza (Jagellonian University, Poland)

DC6: Improving mass rearing of houseflies by optimizing the circadian environment

Host supervisors: Prof. Leo Beukeboom, Prof. Bregje Wertheim, Prof. Jean-Christophe Billeter (University of Groningen, The Netherlands)

DC7: Photoperiodism: circadian photoreception driving body composition changes in migratory Lepidoptera Host supervisors: Prof. Roelof Hut and Dr. Casper van der Kooi (University of Groningen, The Netherlands)

DC8: The interplay between circadian clocks and complex behaviours in a key bumble bee pollinator

Host supervisor: Prof. Guy Bloch (Hebrew University of Jerusalem, Israel)

DC9: Integration of sleep and feeding with the circadian clock and metabolism in *Drosophila melanogaster* Host supervisors: Prof. Ralf Stanewsky, Dr. Angelique Lamaze (University of Münster, Germany)

DC10: Analysis of natural variants to identify novel clock/sleep genes in Drosophila

Host supervisor: Dr. Francois Rouyer (Universite Paris-Saclay, France)

DC11: Mitochondrial and nuclear control of adaptive thermogenesis in insects: the role of UCPs and TNALPs from a circadian and seasonal perspective

Host supervisor: Prof. Rodolfo Costa (University of Padova, Italy)

DC12: Unravelling the Influence of the Gut Microbiome on Insect Seasonal and Developmental Timing

Host supervisor: Dr. Eran Tauber (University of Haifa, Israel)

DC13: Plasticity of the neuropeptidergic cockroach circadian clock: adjustment to different photoperiods

Host supervisors: Prof. Monika Stengl and Dr. Suzanne Neupert (University Kassel, Germany)

DC14: The impact of dopaminergic system metabolism on circadian clock neurons

Host supervisor: Dr. Milena Damulewicz (Jagellonian University, Poland)

DC15: Chemical entrainment of the circadian clock

Host supervisor: Dr. Abhishek Chatterjee (Université Paris-Saclay, France)

INCITE-associated DCs

DC16: Circadian and seasonal biology of the black soldier fly

Host supervisor: Prof. Charalambos Kyriacou (University of Leicester, UK)

DC17: Implementing chronobiology and seasonality discoveries to optimise the production of high value proteins in the black soldier fly

Host supervisor: Prof. Ezio Rosato (University of Leicester, UK)

Benefits

- Successful candidates will be part of an international and interdisciplinary network with regular meetings and a strong cohort-effect of fellow PhD students
- Internships/secondments in other INCITE member labs are an integral part of the programme
- Intense training in chronobiology and related disciplines by leading experts in the field
- Competitive salary

The guaranteed PhD funding is for 36 to 48 months. In addition to their individual scientific projects, all doctoral candidates will benefit from accompanying education and career development measures, a variety of training modules as well as transferable skills courses and active participation in workshops and conferences.

Selection process

Our selection procedure is open, transparent, merit-based and in line with the Code of Conduct for the Recruitment of Researchers.

Candidates should submit the following documents as one single PDF file via email to incite@entu.cas.cz for one to maximum five positions and indicate their preference.

- a detailed CV
- a motivation letter
- two letters of reference
- English transcripts of bachelor and, if applicable, master degrees
- an English language certificate.
- no more than 12 months of residence in the host country in the last 3 years

The candidates will be selected to fit the best for the different projects through the following steps:

Eligibility check: our recruitment committee will check that each application is complete and that applicants fulfil the MCSA eligibility criteria.

Remote Evaluation: each eligible application will be assessed independently by the principal investigators of the network, according to the project interests indicated by the applicants. Up to four candidates per position will reach the following stage.

Online interviews: short-listed candidates will be invited for an online interview. Short-listed candidates will be interviewed by their putative supervisor (i.e. the supervisor responsible for the research project of interest), two additional supervisors from the network, and a member of the recruitment committee. Candidates who have been positively evaluated but not initially invited for interviews will be put on a reserve list.

Notification of the selection outcomes: our recruitment committee will notify short-listed candidates of the outcome, and those selected will be put in touch with the corresponding principal investigator and the Human Resources Department of the hosting institution to initiate the hiring procedure. Selected candidates then need to apply to individual PhD programs at host institutes. Applicants who have not been successful but who have received a positive evaluation will be put on a waiting list to cover possible withdrawals and future positions.

Recruitment Calendar

- Call opening: September 2024
- Deadline for applications: October 15, 2024
- Interviews: September – November 2024
- Start date of the fellowship: October 2024 – March 2025 (depending on the position and University)