



University of Genova

Department of Earth, Environmental
and Life Sciences

Doctorate Course in Earth and
Environmental Science and
Technology

Università degli Studi di Genova



Dottorato in Scienze e Tecnologie
per l'Ambiente e il Territorio

Curriculum in biology applied to agriculture and the environment

Research theme 7

Titolo: Censimento e valutazione sanitaria di insetti ed altri artropodi di contesti urbani e portuali

Title: Inventory and sanitary evaluation of Insects and other Arthropods from urban and port contexts

Tutor: Prof. Stefano Vanin, stefano.vanin@unige.it

Program description including the formation program abroad:

The project is composed by two components, the first one concerns a field sampling using specific traps and a second one laboratory based. In the second part the PhD student will be involved in the identification of the collected insects using a morphological and a molecular approach (mainly COI gene) and then extracting and characterizing the microbiome associated with them. NGS techniques will be applied. A good knowledge of insect taxonomy is required.

Student will spend, depending on the pandemic conditions, time to improve the identification techniques and the molecular expertise in different European (eg. Poland, France) and non-European countries (eg. UK) and he/she will attend the PhD learning modules.

Financial support: FRA2020

Tutor's publications:

Tuccia F., Zurgani E., Bortolini S., **Vanin S.** 2019 Experimental evaluation on the applicability of necrobiome analysis in Forensic Veterinary Science. *MicrobiologyOpen* 12:e828 doi: 10.1002/mbo3.828

Lo Pinto S., Giordani G., Tuccia F., Ventura F., **Vanin S.** 2017 First records of *Synthesiomyia nudiseta* (Diptera: Muscidae) from forensic cases in Italy. *Forensic Science International* 276:e1-e7 doi: 10.1016/j.forsciint.2017.05.003.

Tuccia F., Giordani G., **Vanin S.**, 2016 A general review of the most common COI primers for Calliphoridae identification in Forensic Entomology. *Forensic Science International-Genetics* 24:e9-e11 doi: 10.1016/j.fsigen.2016.07.003