

# Curriculum Vitae

## Personal Information

**Full name** VENETIA KOIDOU  
**Date of birth** 09/11/1993  
**Nationality** Greek  
**Current address** **Laboratory of Molecular Entomology**  
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## Education

2018-Present **PhD** PhD candidate in the Molecular Entomology laboratory (IMBB-FORTH/Biology Department University of Crete UOC)  
**Thesis Title:** Functional characterization of genes participating in the development of resistance mechanisms and in interactions with the bacterium *Erwinia dadicola*, in the olive fruit fly (*Bactrocera oleae*).  
(Supervisor: Prof John Vontas, IMBB-FORTH)

2016-2018 **MSc** Department of Biology, University of Crete, MSc in Molecular Biology and Biomedicine  
**Thesis Title:** Changes in the chitin levels in the legs of resistant *Anopheles gambiae* mosquitoes, probably related to their insecticide resistance.  
(Supervisor: Prof John Vontas, IMBB-FORTH)

2011-2016 **BSc** Department of Agriculture, Aristotle University of Thessaloniki  
**Thesis Title:** Pig slaughter stress and investigation of expression profiles of genes implicated in stress pathways.  
(Supervisors: Prof George Vatzias, Pr Investigator Zoe Hilioti)

## Pre-doctoral training

2017 MSc rotation student, Departments of Biology and Medicine, UOC and IMBB-FORTH  
1<sup>st</sup> rotation: Mavrothalassitis lab, Dpt of Medicine, University of Crete  
2<sup>nd</sup> rotation: Garinis lab, IMBB-FORTH and Dpt of Biology, University of Crete  
3<sup>rd</sup> rotation: Karagogeos lab, IMBB-FORTH and Dpt of Medicine, University of Crete

2014-2016 Research activities using molecular techniques related to gene expression, Institute of Applied Biosciences, Center for Research and Technology-Hellas CERTH, Thessaloniki  
(Supervisor: Zoe Hilioti)

2009 Summer school (05-Jul-2009 to 25-Jul-2009), Genetics, Biotechnology, Plant and Food Science, University of Illinois, Urbana, Illinois, USA

## Foreign languages

Greek (mother tongue), English (B2 level), French (B1 Level)

## Laboratory Skills

Molecular biology techniques (DNA/RNA extractions, cDNA synthesis, PCR and qPCR analysis, DNA cloning), Protein techniques (protein extraction and characterization, quantification methods, acrylamide gel electrophoresis, Western blots), Microscopy (cellular biology methods, immunohistochemistry, confocal microscopy, fluorescent microscopy), Confocal Image Processing (Photoshop and Fiji /ImageJ), DNA Cloning (PCR amplification, Restriction Enzyme Digestion, PCR and Plasmid Purification, Ligation, Transformation, Plasmid Isolation / Mini prep, Midi prep), Insect maintenance (olive flies and *Drosophila melanogaster*, insect mating experiments, tissue dissections), Other techniques (toxicity bioassays in insects), Mice handling (genotyping, anatomy), Mammalian cell culture.

## Seminars – Courses

### “Introduction to Genomic Technologies”

Online non-credit course provided by Johns Hopkins University through Coursera platform

### Summer School: “Stem Cells: From basic biology to translational research”

Lectures in Biology 2015, The Onassis Foundation Science Lecture Series, Foundation for Research and Technology Hellas in Heraklion, Crete, Greece

**Spirit Summer School “Molecular Genetics in Zoology” and Symposium “Frontiers in Molecular Zoology”** Workshop, Poster & Oral Presentation, 16-20 September 2019, Göttingen, Germany

## Publications in peer-reviewed journals

**Koidou, V.**, Denecke, S., Ioannidis, P., Vlatakis, I., Livadaras, I., & Vontas, J.: **Efficient genome editing in the olive fruit fly, *Bactrocera oleae*. *Insect Molecular Biology*, 2020, DOI: 10.1111/imb.12640**

Balabanidou V., Aivaliotis M., Koidou V., Kefi M., Girotti J. R., Juárez M. P., Papadogiorgaki E., Chalepakis G., Kampouraki A., Nikolaou C., Ranson H., Vontas J.: **Mosquito builds leg cloak to fight against insecticides**. *Proceedings of the Royal Society B*, 2019, 286.1907: 20191091.

Hilioti Z, Michailof CM, Valasiadis D, Iliopoulou EF, **Koidou V**, Lappas AA (2017) **Characterization of castor plant-derived biochars and their effects as soil amendments on seedlings**. *Biomass and Bioenergy* 105:96-106

Drosou V, Kapazoglou A, **Koidou V**, Merkouropoulos G, Hilioti Z (2017) **Spatial and temporal expression of cytosine-5 DNA methyltransferase and DNA demethylase gene families of the *Ricinus communis* during seed development and drought stress**. *Plant Growth Regulation* 84:81-94

## Posters

### 1. Göttingen Spirit Summer School “Molecular Genetics in Zoology” and Symposium “Frontiers in Molecular Zoology”, 16-20 September 2019, Göttingen, Germany

“CRISPR/Cas9 tool establishment to understand insecticide resistance”

Venetia Koidou, Shane Denecke, Panos Ioannidis, Ioannis Livadaras, Inga Siden-Kiamos and John Vontas

### 2. 18<sup>th</sup> Panhellenic Entomological Congress, 15-18 October 2019, Komotini, Greece

“Biotechnological approaches for analysing resistance of *Bactrocera oleae* to insecticides and its interactions with the endosymbiont *Erwinia dacicola*”

V. Koidou, S. Denecke, P. Ioannidis, I. Livadaras, I.S. Kiamos and I. Vontas

### 3. 8<sup>th</sup> International Symposium on Molecular Insect Science, 7-10 July 2019, Sitges, nr Barcelona, Spain

“Fighting the olive fruit fly *Bactrocera oleae* by hitting its bacterial symbionts: investigating *Erwinia dacicola*–host interactions”

Inga Siden-Kiamos, Venetia Koidou, Ioulietta Moustaka, Ioannis Livadaras, Panos Ioannidis, Shane Denecke, and John Vontas

### 4. 15<sup>th</sup> Panhellenic Conference of the Hellenic Scientific Society for Plant Genetic Improvement, October 15-17 October 2014, Larissa, Greece

“The effect of temperature on seed germination of *Ricinus communis* L.”

Merkouropoulos Georgios, Drosou Victoria, Koidou Venetia, Kapazoglou Aliko, Hilioti Zoe

### 5. Hellenic Society for Biochemistry and Molecular Biology, 65<sup>th</sup> Annual Conference, 28-30 November 2014, Thessaloniki, Greece

“Integration of light and development signals by RGS1 gene”

Sabna Ajith, Venetia Koidou, Ioannis Ganopoulos, Kostantinos A. Paschalidis, Zoe Hilioti

### 6. Hellenic Society for Biological Sciences 37<sup>th</sup> Annual Conference, 21-23 May 2015, Volos, Greece

#### 6.1. “Investigation of the mechanism of action(s) of fagopyrin and hypericin isolated from buckwheat in yeast model system”

Sytar Oksana, Kotta Konstantia, Koidou Venetia, Pashalidis Alexandros, Hilioti Zoe

#### 6.2. “Characterization of cytosine-5 DNA methyltransferase and demethylase gene family in *Ricinus communis*”

Drosou Victoria, Kapazoglou Aliko, Koidou Venetia, Merkouropoulos Georgios, Hilioti Zoe

#### 6.3. “Effect of blue light in the germination potential of castor plant (*Ricinus communis*)”

Kapazoglou Aliko, Pashalidis Alexandros, Koidou Venetia, Merkouropoulos Georgios, Drosou Victoria, Hilioti Zoe

#### 6.4. “Gene expression under drought conditions in castor (*Ricinus communis*) hybrids”

Kapazoglou Aliko, Merkouropoulos Georgios, Koidou Venetia, Drosou Victoria, Hilioti Zoe

## Personal Interests

- Yoga, ski mountaineering, hiking, climbing, scuba diving (1st star Open Water Diving License certified)
- Hellenic Rescue Team member (mountain search and rescue activities, first aid certifications)
- Photography, film making classes