

# Europass Curriculum Vitae

## Personal information

First name / Surname ILARIA CASTELLI

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Nationality Italian

Date of birth 17/01/1984

## Work experience

Date **March 2015 – to date**

Occupation or occupation held toxicology expert

Main activities and responsibilities Data Entry experience on European Food Safety Authority Project: "Compilation of a database, specific for the pesticide active substance and their metabolites, comprising the main genotoxicity endpoints" (GP/EFSA/PRAS/2014/01).

Name and address of employer Azienda Ospedaliera – Polo Universitario Ospedale Luigi Sacco  
International Centre for Pesticides and Health Risk Prevention (ICPS)  
Via G.B. Grassi 74 20157 Milano

Type of business or sector Health

Date **October 2012 – December 2013**

Occupation or occupation held Postdoctoral researcher

Main activities and responsibilities Research in the field of virology.  
I managed a research project concerning the possible spread of the African Rift Valley Fever virus in the European region. I have identified the possible European vectors (mosquitoes) of the virus through molecular markers and, through *in vivo* studies, I have investigated their competence for the virus.

Name and address of employer Institut Pasteur - 25,28 rue du Docteur Roux - 75724 Paris CEDEX 15 - FRANCE

Type of business or sector A private non-profit foundation which contributes to the prevention and treatment of disease, through research, education, and public health activities

## Education and training

Date **November 2008 – December 2011**

Title of qualification awarded PhD in INSECT SCIENCE AND BIOTECHNOLOGY with Fellowship

Brief Synopsis of Research Thesis title: Mechanisms involved in the absorption of bioinsecticides and strategies to enhance their passage through the insect midgut.

Research in insect physiology, cell biology and biotechnology.

The main subject of my PhD thesis was the study of the *Junonia coenia* Densovirus infection of the Lepidopteran pest *Spodoptera frugiperda*. I characterized the strategies adopted by the densovirus to cross the midgut barrier of the host and I analysed the transcriptomic response to infection of insect gut cells. I also studied a possible mechanism to increase the protein uptake in insect midgut characterizing the mechanisms involved in the internalization of selected Cell Penetrating Peptides through the plasma membrane of lepidopteran larval midgut cell.

From February 1<sup>st</sup> to July 31<sup>th</sup> 2010 research at the "Laboratoire de Biologie Integrative et Virologie des Insect" INRA-UMII, Institute National de la Recherche Agronomique, Montpellier (France) (with fellowship LLP/ERASMUS STUDENT PLACEMENT).

Name and type of organisation providing education and training  
 Università degli Studi dell'Insubria – Varese, Italy  
 Research activity performed at Department of Biology, Università degli Studi di Milano – Milan - Italy

Dates **October 2006 – July 2008**

Title of qualification awarded Laurea specialistica in BIODIVERSITY AND BIOLOGICAL EVOLUTION (2° cycle graduate studies – master level) – marks 110 /110 cum laude

Project laboratory Thesis title: Multidiscipline approach for the valuation of the state of pollution of the Lake Trasimeno. Identification and quantification of some persistent organic pollutions (gas-cromatography) and valuation of their possible effects on the sentinel species *Dreissena polymorpha* by the application of a battery of biomarkers (Comet test, MN test, Halo assay and Neutral Red Retention Assay).

Name and type of organisation providing education and training  
 Università degli Studi di Milano – Milan, Italy  
 Research activity performed at Department of Biology, Università degli Studi di Milano – Milan - Italy

Dates **October 2003 – October 2006**

Title of qualification awarded Laurea in BIOLOGY (1° cycle undergraduate studies) – marks 110 /110 cum laude

Name and type of organisation providing education and training  
 Università degli Studi di Milano – Milan, Italy

Dates **July, 2003**

Title of qualification awarded Maturità scientifica (secondary school leaving qualification) – marks 84/100

Name and type of organisation providing education and training  
 Liceo scientifico Enrico Fermi – Cantù, Italy

## Personal skills and competences

Mother tongue(s) **Italian**

Other language(s)

Self-assessment

*European level (\*)*

**English**

**French**

Understanding		Speaking		Writing
Listening	Reading	Spoken interaction	Spoken production	
B2	B2	B2	B2	B2
A2	B2	A2	A2	A1

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user

(\*) Common European Framework of Reference for Languages

Technical skills and competences	<p>Techniques in cell biology: preparation of primary cell cultures, maintaining cells in culture, immunocytochemistry, tissue sample preparation for histological observations, confocal microscopy analysis</p> <p>Physiological techniques: measurements of transmembrane fluxes in isolated epithelia by means of fluorescent probes</p> <p>Biochemical techniques: spectrophotometrical and spectrofluorimetric analyses, enzymatic assays</p> <p>Electrophoretic techniques: SDS-PAGE and Western Blotting</p> <p>Biomolecular techniques: RT-PCR, qPCR</p> <p>Data collection, processing and analysis</p> <p>Laboratory rearing of insects</p> <p>Experience in handling viruses</p> <p>Experience in working in Biosafety level 3 laboratory.</p> <p>Use of GC/MS/MS, preparation of the samples to the date-gathering and their analysis.</p>
Organisational skills and competences	<p>Ability to work collaboratively with colleagues</p> <p>Determination and ability to work to deadlines</p> <p>Writing of reports and publications in Italian and English</p> <p>Writing of scientific projects</p> <p>Co-supervisor of Master student in the laboratory activities</p> <p>Presentations at Scientific Meetings</p>
Computer skills and competences	MS Office, Adobe Photoshop, Sigma Plot, Access and software Xalibur
Driving licence	B
<b><u>Additional information</u></b>	
<b>Annexes</b>	<p>Publications</p> <ul style="list-style-type: none"> <li>• Cermenati G., Terracciano I., <u>Castelli I.</u>, Giordana B., Pennacchio F., Rao R., Casartelli M. 2011. The CPP Tat enhances eGFP internalization by midgut cells of <i>Bombyx mori</i> larvae (Lepidoptera, Bombycidae). <i>Journal of Insect Physiology</i>. 57(12):1689-97;</li> <li>• Multeau C., Froissart R., Perrin A., <u>Castelli I.</u>, Casartelli M., Ogliastro M. 2012. Four amino acids of an Insect densovirus capsid determine midgut tropism and virulence. <i>Journal of Virology</i>. 86(10): 5937–5941.</li> <li>• Wang Y., Gosselin Grenet AS., <u>Castelli I.</u>, Cermenati G., Ravallec M., Fiandra L., Debaisieux S., Multeau C., Lautredou N., Dupressoir T., Li Y., Casartelli M., Ogliastro M. 2013. Densovirus crosses the insect midgut by transcytosis and disturbs the epithelial barrier function. <i>Journal of Virology</i>. 87(22):12380-91</li> </ul>

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