

# Edoardo Giussani

Birth date: 05/04/1993  
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## EDUCATION

**EVOLUTIONARY BIOLOGY** • FINAL MARK: 105/110 2017-2019  
UNIVERSITÀ DEGLI STUDI DI PADOVA, PADUA (ITALY) MASTER'S DEGREE

Thesis: "Viral load and copy number variation in chronic lymphoproliferative disorder of NK cells disclosed by custom analyses of exome profiling data"

**ENVIRONMENTAL SCIENCES AND TECHNOLOGY** • FINAL MARK: 92/110 2012-2016  
UNIVERSITÀ DEGLI STUDI DI PADOVA, PADUA (ITALY) BACHELOR'S DEGREE

Thesis: "Importanza dell'appetibilità nel fenomeno del "secondary killing" in tre diverse esche insetticida per il controllo di *Blattella germanica* (Blattodea)"

## WORK EXPERIENCE

**RESEARCH FELLOW** 02/2021-TO DATE  
ISTITUTO ZOOPROFILATTICO SPERIMENTALE DELLE VENEZIE, LEGNARO FULL-TIME

Field of research: study of viruses of zoonotic interest, mainly avian influenza and SARS-CoV-2.

- Pipeline design and development
- Python and Excel scripting
- Data analysis on NGS data
- Workflows optimization

**TEMPORARY RESEARCH FELLOW** 02/2020-07/2020  
DEPT. MOLECULAR MEDICINE, PADUA FULL-TIME

Project: "Study of amplified or deleted genomic regions in chronic lymphoproliferative disorder of NK cells"

- Developed custom Python pipelines to perform analyses
- Results processed with R and spreadsheets
- Enrichment of genes of interest using KEGG Pathway

**FIELD AND LABORATORY ASSISTANT** 2015-2017  
ENTOSTUDIO, PONTE SAN NICOLÒ STAGE/FULL-TIME

- Laboratory and field tests to evaluate repellents and insecticides effectiveness
- Design and long term planning of tests
- Breeding and identification of different species of insects

## PERSONAL SKILLS

### Digital skills

-**Excellent:** Python, VBA, C#, Office Suite, Google Suite, Git, GitHub, Conda  
-**Great:** SQL, R,  $\text{\LaTeX}$  and Arduino's language  
-**Basic:** Docker, JavaScript  
-Development in Linux and Windows environment, both desktop and server  
-Fast and enthusiast learner of new programming languages

### Bioinformatics skills

-SNP, CNV, Indels analysis on Illumina data  
-Analysis of NGS data  
-Investigation of viral DNA integration in human genome  
-Navigation in principal bioinformatics databases  
-Metagenomic investigations

Language skills	-Italian: mother tongue -English: Understanding: B2   Speaking: B2   Writing: B2
Driving licence	B

## PUBLICATIONS

- [1] Agüero, M., [...], **Giussani, E.**, et al. **2023a**. "Authors' response: Highly pathogenic influenza A(H5N1) viruses in farmed mink outbreak contain a disrupted second sialic acid binding site in neuraminidase, similar to human influenza A viruses". In: *Euro surveillance : bulletin Européen sur les maladies transmissibles = European communicable disease bulletin* 28 (7). ISSN: 15607917. DOI: 10.2807/1560-7917.ES.2023.28.7.2300109.
- [2] Agüero, M., [...], **Giussani, E.**, et al. **2023b**. "Highly pathogenic avian influenza A(H5N1) virus infection in farmed minks, Spain, October 2022". In: *Euro surveillance : bulletin Européen sur les maladies transmissibles = European communicable disease bulletin* 28 (3). ISSN: 15607917. DOI: 10.2807/1560-7917.ES.2023.28.3.2300001.
- [3] Tammiranta, N., [...], **Giussani, E.**, et al. **2023c**. *Highly Pathogenic Avian Influenza a (H5n1) Virus Infections in Wild Carnivores Connected to Mass Mortalities of Pheasants in Finland*. DOI: 10.2139/ssrn.4339801.
- [4] Brian, I., [...], **Giussani, E.**, et al. **2022a**. "Molecular Monitoring of SARS-CoV-2 in Different Sewage Plants in Venice and the Implications for Genetic Surveillance". In: *ACS ES and T Water* 2 (11). ISSN: 26900637. DOI: 10.1021/acsestwater.2c00013.
- [5] Mazzaferri, F., [...], and **Giussani, E.** **2022b**. *Exploratory data on the clinical efficacy of monoclonal antibodies against SARS-CoV-2 Omicron Variant of Concern*. DOI: 10.1101/2022.05.06.22274613.
- [6] Mellouli, F. El, [...], **Giussani, E.**, et al. **2022c**. "Spatiotemporal Dynamics, Evolutionary History and Zoonotic Potential of Moroccan HgN2 Avian Influenza Viruses from 2016 to 2021". In: *Viruses* 14 (3). ISSN: 19994915. DOI: 10.3390/v14030509.
- [7] Ouoba, L.B., [...], **Giussani, E.**, et al. **2022d**. "Emergence of a Reassortant 2.3.4.4b Highly Pathogenic H5N1 Avian Influenza Virus Containing HgN2 PA Gene in Burkina Faso, West Africa, in 2021". In: *Viruses* 14 (9). ISSN: 19994915. DOI: 10.3390/v14091901.
- [8] Pagliari, M., [...], **Giussani, E.**, et al. **2022e**. *Omicron Neutralizing and Anti-SARS-CoV-2 S-RBD Antibodies in Naïve and Convalescent Populations After Homologous and Heterologous Boosting With an mRNA Vaccine*.
- [9] Quaranta, E.G., [...], **Giussani, E.**, et al. **2022f**. "SARS-CoV-2 intra-host evolution during prolonged infection in an immunocompromised patient". In: *International Journal of Infectious Diseases* 122. ISSN: 18783511. DOI: 10.1016/j.ijid.2022.06.023.
- [10] Drago, A. **Giussani, E.** et al. **2021a**. "Evaluation of secondary killing effect of Imidacloprid Gel Baits to control *Blattella germanica* (Linné 1767) (Blattaria: Blattellidae)". In: *Journal of Entomological and Acarological Research* 53 (3). ISSN: 22797084. DOI: 10.4081/JEAR.2021.9897.
- [11] **Giussani, E.** et al. **2021b**. "Lack of Viral Load Within Chronic Lymphoproliferative Disorder of Natural Killer Cells: What Is Outside the Leukemic Clone?" In: *Frontiers in Oncology* 10. ISSN: 2234943X. DOI: 10.3389/fonc.2020.613570.
- [12] Corcos, D., [...], **Giussani, E.**, et al. **2020a**. "Effects of natural pyrethrum and synthetic pyrethroids on the tiger mosquito, *Aedes albopictus* (skuse) and non-target flower-visiting insects in urban green areas of Padua, Italy". In: *International Journal of Pest Management* 66 (3). ISSN: 13665863. DOI: 10.1080/09670874.2019.1612123.
- [13] Gasparini, V.R., [...], **Giussani, E.**, et al. **2020b**. "A high definition picture of somatic mutations in chronic lymphoproliferative disorder of natural killer cells". In: *Blood Cancer Journal* 10 (4). ISSN: 20445385. DOI: 10.1038/s41408-020-0309-2.