Umberto Palatini

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EDUCATION

Since 2017	University of Pavia PhD course in Genetics, Molecular and Cellular Biology Project: Genetic variability in the viral vector Aedes aegypti and its antiviral immune response Advisor: Prof. Mariangela Bonizzoni, Ph.D
2017	University of Pavia MSc in Molecular Biology and Genetics 110/110 e lode Thesis: An evolutionary perspective of viral integrations in mosquito genomes using comparative genomics Advisor: Prof. Mariangela Bonizzoni, Ph.D.
2016	University of Pavia BSc in Biological Sciences 108/110 Thesis: Torque Teno Virus infection kinetic in kidney recipients Advisor: Prof. Fausto Baldanti, M.D.
2016	Istituto di Istruzione Superiore Q. Sella, Biella Indirizzo Scientifico-Tecnologico Diploma di maturità Scientifica

RESEARCH EXPERIENCE

November 2017	Fieldwork and laboratorial activity at Southern Medical University, Guangzhou, Popular Republic of China.

Collection of samples across the Guangdong region and subsequent processing and analysis, in collaboration with Prof. Xiao-Guang Chen.

Since October 2017 **PhD research activity**

Dept. of Biology and Biotechnology, University of Pavia

Partecipation in the project "Exploring the concept of adaptive immunity to viruses in mosquitoes" funded by the Human Frontier Science Program.

PI: Prof. Mariangela Bonizzoni, PhD

February 2016 - October 2017 **Master Thesis internship**

Dept. of Biology and Biotechnology, University of Pavia

Partecipation in the project "Population genomics of co-evolution between non-retroviral RNA viruses and their hosts" funded by a ERC Consolidator Grant. The goal of this research is to uncover the complex biological interactions between nonretroviral RNA viruses and vector mosquitoes.

PI: Prof. Mariangela Bonizzoni, PhD

October 2014 - February 2016 **Thesis internship**, Molecular Virology Unit,

Fondazione IRCCS Policlinico San Matteo.

Clinical research project: Evaluation of TTV load kinetics among kidney transplant recipients in the first year post-transplant period.

PI: Antonio Piralla, PhD

SKILLS

LANGUAGES:

Mother-tongue **Italian**, professional proficiency in **English**, intermediate **Spanish**.

INFORMATIC AND BIOINFORMATICS SKILLS:

- Proficient knowledge of Windows 7/8/10, Microsoft office suite
- Basic knowledge of Linux environment
- Good knowledge of Python and Bash scripting
- Independent user of NCBI and EBI web-based tools, Galaxy, VectorBase and various genomic elements databases
- Good knowledge of biologic analyses softwares: SnapGene, EuGene, Chromas, Anaconda, AliView, PyMol, qBASE+
- Good skills in Next Generation Sequencing analyses: BWA, Picard-tools, Samtools, Bedtools, GATK, Bowtie2, IGV, AnnoVar.
- Knowledge of Pool Sequencing tools: PoPoolation 1 and 2, PoPoolation TE

LABORATORIAL SKILLS:

- Mosquitoes rearing, collection and maintenance
- Water samples collection, filtration, concentration

- DNA and RNA extraction and purification from animal tissues, insects, bacteria and water samples
- Conventional PCR and Reverse-transcriptase, Gradient and Nested PCR
- Real-Time PCR run and analyses
- Gel Electrophoresis and DNA extraction from gel
- Sanger sequencing and NGS sample preparation and analyses
- Bacterial transformation, cloning and basic bacterial cultivation techniques
- Knowledge of BSL-1 and BSL-2 laboratory security protocols

Excellent planning and laboratory management skills, capable of organizing and following minor research projects, strong problem-solving and analytical skills. Confident, articulate, and professional speaking and writing abilities.

PUBLICATIONS

Palatini U., Miesen P., Carballar-Lejarazu R., Ometto L., Rizzo E., Zhijian T., Van Rij R. Bonizzoni M. (2017)
Comparative genomics shows that viral integrations are abundant and express pirnas in the arboviral vectors *Aedes aegypti* and *Aedes albopictus*. *BMC Genomics.*
http://dx.doi.org/10.1186/s12864-017-3903-3

Piralla A., Girello A., Premoli M., **Palatini U.**, Baldanti F. (2013)
Evaluation of TTV load kinetics among kidney transplant recipients in the first year post-transplant period. *Journal of Clinical Virology.*
http://dx.doi.org/10.1016/j.jcv.2016.08.019

CONFERENCE ABSTRACTS AND POSTERS

ABSTRACTS

Palatini U., Pischedda E., Bonizzoni M.
Comparative genomics of viral integration in mosquitoes. *EMBO Conference, Molecular and population biology of mosquitoes and other disease vectors: vector and disease control*. 24 – 28 July *2017* I *Kolymbari*, Greece.

Palatini U., Pischedda E., Bonizzoni M.
Nonretroviral integrated RNA viruses in the genome of mosquito vectors: a new form of immunity? *Second Joint Meeting of Société Zoologique de France and Unione Zoologica Italiana.* 18 – 22 September 2017 I Torino, Italy

Palatini U., Miesen P., Pischedda E., Carballar R., Valerio F., Iovino G., Van Rij R., Bonizzoni M.
Viral integrations are abundant in the genome of Aedes mosquitoes. *3rd International Workshop on Aedes Albopictus*. 10 – 12 April I Pavia, Italy.

Varghese F., Halbach., Miesen P., **Palatini U.**, Bonizzoni M., Van Rij R.
Dissecting small RNA biogenesis in *Aedes albopictus*. *3rd International Workshop on Aedes Albopictus*. 10 – 12 April I Pavia, Italy.

POSTERS

Pischedda E., Valerio F., **Palatini U**., Bonizzoni M.
Viral integrations in the genome of the Asian tiger mosquito Aedes albopictus: a new source of genomic variability? 3rd International Workshop on Aedes Albopictus. 10 – 12 April l Pavia, Italy.

REFERENCE

Prof. Mariangela Bonizzoni, PhD (Thesis and Research supervisor)
Dept. Of Biology and Biotechnology, University of Pavia, Italy
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