

GHERRARD BATISTI BIFFIGNANDI  
*Curriculum vitae*

## Registry

Born in Vigevano (PV), Italy, 23/08/1989  
Citizenship: Italian  
Email: gherard.batistibiffign01@universitadipavia.it

## Work experiences:

- October 2019-Present: PhD student in Genetics, Molecular and Cellular Biology, University of Pavia  
Supervisors: Prof. R. Migliavacca, Dr. D. Sassera
- Dec 2018 – Sep 2019: granted research fellow at the Parasitology laboratory, Dept. of Biology and Biotechnology “L. Spallanzani”, University of Pavia.  
Topic: Bioinformatic analyses applied to the development of novel techniques for echinococcosis diagnosis  
Supervisor: Dr. D. Sassera
- Oct 2018 – Nov 2018: collaborator at the Parasitology laboratory, Dept. of Biology and Biotechnology “L. Spallanzani”, University of Pavia  
Supervisor: Dr. D. Sassera

## Education:

- Oct 2016 – Sept 2018: M.Sc. in Medical and Pharmaceutical Biotechnology, University of Pavia  
Thesis: Oxford VS Pasteur: bioinformatic comparative analyses aimed at the evaluation of MLST schemes in the bacterium *Acinetobacter baumannii*  
Supervisor: Dr. Davide Sassera, Cosupervisor: Dr. Stefano Gaiarsa
- May 2016: stage at Medical Genetics Laboratory at the Hospital A. Meyer in Florence  
Supervisor: Prof. S. Giglio, Dr. A. Provenzano
- 2008 – 2016: B.Sc. in Biological Sciences, University of Pavia  
Thesis: Inactivation of an operon coding for an efflux pump RND16 in *Burkholderia cenocepacia*  
Supervisor: Prof. Giovanna Riccardi, Cosupervisor Dr. Viola Scoffone

**Operating System:** Linux (Ubuntu), Windows

**Programming languages:** Bash, Python, R (experience with related libraries and packages available)

## Bioinformatic skills

- Omic data analysis, DNA, RNA and protein databases, phylogeny and outbreak reconstruction, gene expression and ontology, gene and SNP calling, local alignment, short reads mapping, localization of secretion systems in eukaryotes e prokaryotes, reverse immunology, genome assembly, cluster analysis, Microarray-CGH
- Python and R script development for data analysis (e.g. gene expression, genetic distances, heatmaps and timelines)
- Statistical analysis: T Student, Fisher, Anova, Shapiro, Kruskal, Simpson, Shimodaira-Hasegawa, Matching Cluster, Robinson-Fould

## Tools

- Srst2, Kleborate, RAxML, Modeltest-ng, Bowtie2, TreeCmp, Gblocks, Prodigal, Blast(n,p,x), Prokka, Muscle, Mauve, Kegg, BAPS, Bepipred, SVMTrip, LBTope, TepitopePan, TMHMM2, SignalP, Phobius, Secretome, DeepLoc, TXSScan

## Laboratory skills

- Real-time PCR, bacterial culture, DNA extraction

## Languages

- Italian (mother tongue)
- English UK
- Writing: B2
- Oral: B2

## Peer reviewed publications

- Comparative Analysis of the two *Acinetobacter baumannii* Multi Locus Sequence Typing (MLST) schemes  
Front. Microbiol., 03 May 2019  
S. Gaiarsa, **G. Batisti Biffignandi**, E.P. Esposito, M. Castelli, K. A Jolley, S. Brisse, D. Sasser, R. Zarrilli

## Abstract and Poster

- The swansong of MLST: Comparative analysis of the two *Acinetobacter baumannii* schemes  
S. Gaiarsa, **G. Batisti Biffignandi**, E.P. Esposito, M. Castelli, K. A Jolley, S. Brisse, D. Sasser, R. Zarrilli  
IMMEM XII
- P1595 *Listeria monocytogenes* isolated from patients and food samples in northern Italy: are they related?  
C. Merla, M. Corbella, S. Gaiarsa, **G. Batisti Biffignandi**, D. Sasser, E. Scaltriti, G. Andreoli, M. Fabbi, P. Cambieri, B. Mariani, P. Marone  
29th ECCMID
- Digging deep into intramitochondrial symbiosis: dual transcriptomics of the hard tick *Ixodes ricinus* and its bacterial symbiont *Mitochondria*  
S. Gaiarsa, A. Cafiso, L. Baker, G. Capron, R. Daveu, **G. Batisti Biffignandi**, O. Plantard, C. Bazzocchi, A.R. Jex, D. Sasser  
XXXI Meeting SolPa, 2018

## Attended conferences

- 8 Oct 2019: New Frontiers of EUCAST, COSA - Comitato di Studio per gli Antimicrobici Sezione Regione Lombardia, Conference Center Michelangelo - Hotel Michelangelo
- 18 – 21 Sept 2019: “12th International Meeting on Microbial Epidemiological Markers” (IMMEM XII), Dubrovnik, Croatia
- Feb 2019: “Epidemiological analysis of two orphan disease: Echinococcus and Trichinella at Istituto Superiore di Sanità
- Sept 2017: “Novel challenges and approaches in microbiology”. Genomics, bioinformatics and the control of antibiotic resistance, at Policlinico San Matteo, Pavia  
Coordinator: Dott. P. Marone
- Jul 2017: “Python for bioinformatics”, at CHT (Centre for Health Technologies), University of Pavia  
Coordinators: Prof. A. Riva, Prof. R. Bellazzi

Autorizzo il trattamento dei dati personali sopra riportati ai sensi del d.lgs. 196/03