Curriculum Vitae
LAURA MOTTARLINI

PERSONAL INFORMATION

Name and Surname	**Laura Mottarlini**
Date of birth	31-05-1999
Place of birth	Como
e-mail	laura.mottarlini01@universitadipavia.it
ORCID ID	0009-0000-3522-7131
Scopus Author ID	60362889400

EDUCATION AND TRAINING

April 2026 — Master's degree in Bioinformatics for Computational Genomics
(LM-8, course in English)
University of Milano in collaboration with Politecnico di Milano

Title of the thesis:
Towards a structurally resolved *Borrelia*-human interactome:
an AlphaFold-accelerated systematic screening of protein-protein interactions

March 2023 — Bachelor's degree in Biological Science
(L-13)
University of Pavia

Title of the thesis:
La flagellina in *Midichloria mitochondrii*: caratterizzazione *in silico* dalla sequenza alla struttura

June 2018 — Scientific High School Diploma
"P. Nervi – G. Ferrari", Morbegno (SO), Italy

PROFESSIONAL EXPERIENCES

October 2024 – September 2026 — Research Fellowship,
on the topic of "Omics analyses of *Borrelia burgdorferi* sensu lato sequences"
Parasitology Laboratory, Prof. Davide Sassera
Department of Biology and Biotechnology "L. Spallanzani", University of Pavia
Microbiology and Virology, Fondazione I.R.C.C.S. Policlinico San Matteo
Pavia - Italy

March 2022 – March 2023 — Internship – Bachelor's Thesis
Parasitology Laboratory, Prof. Davide Sassera
Department of Biology and Biotechnology "L. Spallanzani", University of Pavia
Pavia - Italy

BIONFORMATICS SKILLS

Analysis and interpretation of genomic data. Experience in managing and processing large biological datasets and in developing workflows for data analysis. Ability to apply computational and statistical approaches to solve problems in the field of biology. Programming and scripting skills (R, Python, Bash) for automating analyses, managing, and visualizing data. Use of Linux environment for analysis and research activities.

POSTERS AT NATIONALS/INTERNATIONALS CONGRESSES

2025

Direct whole genome sequence recovery of *Borrelia* from ticks through Whole-Genome Amplification

Melis S., Bunduc C.C., **Mottarlini L.**, Vumbaca M., Mileto I., Hepner S., Margos G., Fingerle V., Prati P., Bandi C., Sambri V., Gaiarsa S., Baldanti F., Bellinzona G., Sassera D. – INF-ACT, Roma, 17-20, Novembre, 2025

In silico structural biology to understand tick-microbe interactions: the case of *Midichloria mitochondrii*

Bellinzona G., Castelli M., Melis S., **Mottarlini L.**, Perner J., Bonvin A.M.J.J., Sassera D. – ISTTBD XVI, Weimar, 26-28 Marzo 2025

2026

Fast-track *Borrelia* genomics: complete genomes from ticks within one week

Melis S., Bunduc C.C., **Mottarlini L.**, Vumbaca M., Mileto I., Hepner S., Margos G., Fingerle V., Prati P., Bandi C., Gaiarsa S., Baldanti F., Bellinzona G., Sassera D. – IPTD, Vienna, 22-25, Marzo, 2026

PUBLICATIONS

Fast and efficient *Borrelia* chromosome recovery from tick samples using whole-genome amplification

Melis S., Bunduc C.C., **Mottarlini L.**, Vumbaca M., Mileto I., Hepner S., Margos, Volker Fingerle, Andreas Sing, Paola Prati, Claudio Bandi, Vittorio Sambri, Stefano Gaiarsa, Fausto Baldanti, Greta Bellinzona, Davide Sassera
Cell Rep Methods. 2026 Apr 23:101420. doi: 10.1016/j.crmeth.2026.101420. Epub ahead of print. PMID: 42030948.

LANGUAGE SKILLS

Native language	Italian
Other languages	English
Level	B2 (Written - Spoken)

PhD INFORMATION

Supervisors	Proff. Davide Sassera – Lino Ometto
Co – supervisor	Prof. Maria Vittoria Mancini
Titolo	Population genomics of arthropods of economic and public health importance