

# MARCO MORSELLI, Ph.D.

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## PERSONAL INFORMATION

**Date and place of birth:** 07 September 1987; Parma, Italy

**Nationality:** Italy

**Languages:** Italian, English (U.S.)

**e-mail:** [marco.murslegn@gmail.com](mailto:marco.murslegn@gmail.com) (personal)

[marco.morselli@unipr.it](mailto:marco.morselli@unipr.it) (institutional)

## CURRENT POSITION

**Junior Assistant Professor (RTD-A)**

September 2021 - Present

University of Parma

Parma, Italy

Department of Chemistry, Life Sciences and Environmental Sustainability

Parco Area delle Scienze, 23/a,

43124 Parma (PR), Italy

## RESEARCHER IDs

**ORCID iD:** <https://orcid.org/0000-0003-3351-5791>

**Publons:** <https://publons.com/researcher/3237853/marco-morselli/>

**Scopus Author Identifier:** 55795632100

**Web of Science ResearcherID:** AAF-3182-2019

## EDUCATION

**University of California, Los Angeles**

Los Angeles, CA

Department of Molecular, Cell and Developmental Biology

Doctor of Philosophy (Ph. D.)

June, 2017

Dissertation

5-methylcytosine: from deposition to detection of the 5th base in mammalian genomes

Advisors: Matteo Pellegrini; Steven E. Jacobsen

**University of Parma**

Parma, Italy

Molecular Biotechnology - Master of Science

November, 2011

110/110 cum laude

Dissertation – Experimental Thesis (Sept. 2010 - Sept 2011)

DNA methylation in *Tuber melanosporum*: a symbiotic filamentous fungus with a genome rich in transposable elements

Advisors: Barbara Montanini; Simone Ottonello

**University of Parma**

Parma, Italy

Biotechnology - Bachelor of Science

October, 2009

110/110 cum laude

Dissertation – Experimental Thesis (March 2009 - Sept. 2009)

Validation of genome-wide protein-protein interactions using yeast two-hybrid technology in the symbiotic ascomycetes *Tuber melanosporum*

Advisors: Barbara Montanini; Simone Ottonello

<b>AWARDS</b>	Ministero della Università e della Ricerca – PRIN 2022 Principal Investigator of Research Unit and substitute P.I. Coordinator: SORRENTINO Giovanni	2023 - 2025
	University of California, Los Angeles - UCLA Clinical and Translational Science Institute. Core CTSI Award, <b>Co-investigator</b>	2020 - 2021
	Illumina UNGC Pilot Grant – Targeted DNA Methylation, <b>Principal Investigator</b>	2017
<b>FELLOWSHIPS</b>	University of California, Los Angeles Institute for Quantitative and Computational Biosciences – The Collaboratory Fellowship	2017 - 2021
	University of California, Los Angeles Dissertation Year Fellowship	2016 - 2017
	University of California, Los Angeles Molecular Biology Institute - Philip Whitcome Fellowship	2014 - 2015 and 2015 - 2016
<b>TEACHING EXPERIENCE</b>	University of Parma Department of Chemistry, Life Sciences and Environmental Sustainability “Eukaryotic Gene Regulation” – 6 CFU (BIO/11) A.A. 2021/2022; 2022/2023; 2023/2024; CdLM Genomic, Molecular, and Industrial Biotechnologies	Oct 2021 - Present
	University of California, Los Angeles Institute for Quantitative and Computational Biosciences – The Collaboratory Instructor – Workshop 16: Library Preparation for Next-Generation Sequencing Co-instructor – Workshop 2: Using NGS Analysis Tools	2017 – 2021
	University of California, Los Angeles Department of Molecular, Cell and Developmental Biology Guest Lecturer – Biochemistry of Library Preparation for Next Generation- Sequencing – Research Immersion Laboratory in Genomic Biology (187AL)	2015 – 2021
	University of California, Los Angeles Department of Molecular, Cell and Developmental Biology Teaching Assistant – 187AL – Research Immersion Laboratory in Genomic Biology	2015
	University of California, Los Angeles Department of Molecular, Cell and Developmental Biology Teaching Assistant – 104AL – Laboratory in Developmental Biology	2013

## STUDENTS SUPERVISED

- **Graduate Students:** Borgognone Alessandra (Public University of Navarre, Spain); Cantarella Simona, (University of Parma, Italy)
- **Master Students:** Dos Santos Patrick (University of São Paulo, Brazil); Francesca Vivalda (University La Sapienza, Italy); Silvia Nigro (University of Parma, Italy); Barbara Rizzo (University of Parma, Italy); Valeria Destro (University of Parma, Italy); Martina Rampulla (University of Parma, Italy); Pasquale Garribba (University of Parma, Italy); Simona Marozzo (University of Parma, Italy); Lorenzo Orsini (University of Parma, Italy);
- **Undergraduate Researchers:** Obusan Matthew (University of California, Los Angeles, USA); Rosenbloom Ashton (University of California, Berkeley, USA); Horrillo Abraham (University of California, Los Angeles, USA)
- **Undergraduate Students:** Serena Facchetti (University of Parma, Italy)

## RESEARCH EXPERIENCE

### Junior Assistant Professor (RTD-A)

University of Parma

*Department of Chemistry, Life Sciences and Environmental Sustainability*

September 2021 – Present  
Parma, Italy

### Postdoctoral Scholar

University of California, Los Angeles

*Department of Molecular, Cell and Developmental Biology*

July 2017 – August 2021  
Los Angeles, CA

Development of methods to detect DNA methylation levels in biological fluids (blood, plasma, saliva, stool, CSF...) for disease prediction using Next Generation Sequencing and Oxford Nanopore Sequencing.

*Institute for Quantitative and Computational Biosciences – The Collaboratory*

- Instructor: Workshop Introduction to Library Preparation for Next-Generation Sequencing (NGS)
- Co-Instructor: Using NGS Analysis Tools; Intro to Unix
- NGS Experiment Design and Library Preparation - collaborative projects

e-mail: [mmorselli@g.ucla.edu](mailto:mmorselli@g.ucla.edu)

### Graduate Student Researcher

University of California, Los Angeles

*Department of Molecular, Cell and Developmental Biology*

September 2012 – June  
2017

Study of the molecular mechanisms between chromatin and DNA methylation. Supervisors: Steven E. Jacobsen; Matteo Pellegrini

Los Angeles, CA

### Staff Research Associate

University of California, Los Angeles

*Department of Molecular, Cell and Developmental Biology*

January 2012 – September, 2012

Improvement of the Reduced Representation Bisulfite Treatment technique for the detection of DNA methylation in large-scale projects.

Los Angeles, CA

Supervisors: Liudmilla Rubbi; Matteo Pellegrini

### M.Sc. Thesis

University of Parma

*Department of Biosciences*

Characterization of the epigenome of *Tuber melanosporum*

Supervisors: Montanini Barbara; Ottonello Simone

September 2010 – November

2011

Parma, Italy

### B.Sc. Thesis

University of Parma

*Department of Biosciences*

High-throughput screening of protein-protein interactions in *Tuber melanosporum* (Yeast 2 Hybrid)

Supervisors: Montanini Barbara; Ottonello Simone

March 2009 – October 2009

Parma, Italy

## PRESENTATIONS

Oral Presentation (invited speaker) **Morselli M.**, New –omics Technologies. XIII CONGRESSO NAZIONALE IGIBD. December 1st, 2022. Riccione, Italy.

Live Webinar (invited speaker) Sample to Success: How Quality Control Affects your NGS workflow. Vierling Elisa, MSc (Agilent Technologies) **Morselli Marco**, PhD (University of California, Los Angeles) October 7<sup>th</sup>, 2020 - Link to the recording: <https://agilenteseminar.webex.com/agilenteseminar/lr.php?RCID=7a6caee2022b4fc3a406c7642a61c1f9>

Seminar (invited speaker) Kevin Petti, Nadia Carlesso, Giorgia del Vecchio, **Marco Morselli**, Andrea Sandri, Alice Soragni, Marco Giovannini. Italian Research Day: Individualized Cancer Therapy in the Age of Precision Medicine. 2019 Italian Cultural Institute and the Consulate General of Italy in Los Angeles, Los Angeles, CA

Seminar **Morselli Marco**, Bisulfite RNA-seq: Detection and Analysis of 5-methyl Cytosine in polyA-RNA. 2018 QCBio Research Seminar, Los Angeles, CA, United States

Oral Presentation (invited speaker) **Morselli M. et al.**, Bisulfite RNA-seq: Detection and analysis of 5-methyl cytosine in polyA-RNA with next generation sequencing. 2018 Keystone Symposium on DNA and RNA Methylation. Vancouver, BC, Canada

Poster Presentation **Morselli M. et al.**, Bisulfite RNA-seq: Detection and analysis of 5-methyl cytosine in polyA-RNA with next generation sequencing. 2018 Keystone Symposium on DNA and RNA Methylation. Vancouver, BC, Canada

Poster Presentation **Morselli M. et al.**, Chromatin features guiding the activity of mammalian DNMT3b. UCLA 2016 Molecular Biology Institute Annual Retreat, Lake Arrowhead, CA, United States

Poster Presentation **Morselli M. et al.**, *In vivo* targeting of de novo DNA methylation by histone modifications in yeast and mouse. UCLA 2015 Molecular Biology Institute Annual Retreat, Los Angeles, CA, United States

Poster Presentation **Morselli M. et al.**, Determining chromatin features affecting the activity of mammalian DNMT3B. Cold Spring Harbor Laboratory 2014 Epigenetics and Chromatin Meeting, Cold Spring Harbor, NY, United States

Poster Presentation Chen P.Y.\*, Montanini B., Rubbi L., **Morselli M.\* et al.**, Transposon methylation in *Tuber melanosporum* (truffle) and gene expression. International Plant & Animal Genome Conference XX (2012), San Diego, CA, United States \***These authors were co-presenters**

## PEER-REVIEW ACTIVITY

- PNAS
- Genome Biology
- Nature Communications
- Molecular Plant
- Briefings in Functional Genomics
- Epigenetics and Chromatin
- PLOS ONE
- Frontiers in Bioinformatics
- Frontiers in Genetics
- STAR Protocols
- International Journal of Molecular Sciences
- Cells
- BMC Medical Genomics
- BMC Research Notes
- Journal of Clinical Medicine
- Medical Science Monitor
- World journal of Surgical Oncology

## ADDITIONAL ACTIVITIES

UCLA Virtual Undergraduate Research Week, May 2021

- Posters/Presentations: Judge
- Medical Research Live Session: Moderator

UCLA Virtual Undergraduate Research Week, May 2020

- Posters/Presentations: Judge
- Medical Research Live Session: Moderator

Title: "METHODS TO DETECT METHYLATION STATUS OF ULTRASHORT SINGLESTRANDED ANDMONONUCLEOSOMAL CELL-FREE DNA".

U.S. Provisional Patent Application No. 63/624,499;

Applicant: The Regents of the University of California

Inventors: Cheng J., Wong D., Swarup N., **Morselli M.**

Title: "CELL-FREE DNA BIOMARKER FOR DIAGNOSIS AND PROGNOSIS OF DISEASES WITH DEGENERATIVE PROCESSES".

U.S. Provisional Patent Application No. 63/506,899;

Applicant: The Regents of the University of California

Inventors: Zaitlen N., Caggiano C., Pellegrini M., **Morselli M.**, Dahl A., Garton F.C.

Title: "METHODS CONCERNING ONGOING TREATMENT OF CANCER".

International Patent Application No. PCT/US2020/033150;

U.S. Provisional Patent Application No. 62/848,494;

Applicant: The Regents of the University of California and United States Government Represented by the Department Of Veterans Affairs

Inventors: Tosevska A., Wang M., Srivatsan E., **Morselli M.**, Pellegrini M.

Visiting Scholar - USCS Human Paleogenomics Lab  
University of California, Santa Cruz.

January 3-5, 2018, and February 6-8, 2018; Santa Cruz, CA, USA.

**Scientific Publications in peer-reviewed international journals**  
(source Scopus: [www.scopus.com](http://www.scopus.com) - May 10<sup>th</sup> 2024)

Total number of publications: **67**

H-index: **22**

Total number of citations: **1853**

Il sottoscritto,  
consapevole che le dichiarazioni false comportano l'applicazione delle sanzioni penali previste dall'art. 76 del D.P.R. 445/2000, dichiara che le informazioni riportate nel seguente curriculum vitae corrispondono a verità.

Data: sabato 10 maggio 2024

Luogo: Parma (PR), Italia

Marco Morselli, Ph.D.