

Antoni Mateu Vera Vives | Curriculum Vitae

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Education

Ph.D.

Ph.D. Programme in Biosciences – 36th cycle

Curriculum Biochemistry and Biotechnology

Supervisor: Prof. Tomas Morosinotto

Università degli Studi di Padova, IT

October 2020 - Present

Master's Degree

M.S. in Molecular Biology – Final mark: 108/110

Supervisor: Prof. Tomas Morosinotto

Università degli Studi di Padova, IT

21/09/2020

Bachelor's degree

B.S. in Biologia Molecolare – Final mark: 102/110

2017-2018: Università degli Studi di Padova (Padova, IT)

2015-2017: Universitat Rovira i Virgili (Tarragona, ES)

Supervisor: Prof. Paola Costantini

Università degli Studi di Padova, IT

26/09/2018

Awards and Scholarships

- **FESPB Travel Grant** to attend the Plant Biology Europe 2023 conference, by the Federation of European Societies of Plant Biology (FESPB) – 20 awardees in Europe
- **Seed Grant 2021** by the Italian Society of Plant Biology (SIBV) – 4 awardees in Italy
- **PhD scholarship** by the Department of Biology (UniPD), 46,029 €/3 years – 9 admitted out of 162 applicants
- **Veneto Regional undergraduate scholarship** 2017-18, 2018-19 and 2019-20
- **Spanish national undergraduate scholarship** 2015-16 and 2016-17

Research Experience

Visiting internship

Alma Mater Studiorum, University of Bologna, IT

Lab of Plant Energy Biology at IBBP

June 2022

Main topic: *In vitro activity quantification of metabolic enzymes in P. patens*

Supervisor: Prof. Francesca Sparla

Visiting internship

WWU University, Münster, DE

Lab of Plant Energy Biology at IBBP

November 2021

Main topic: *In-vivo dynamics of cytosolic ATP using fluorescent reporter lines of P. patens*

Supervisor: Prof. Markus Schwarzländer

Research internship – Ph.D. project

Università degli Studi di Padova, IT

Lab Morosinotto, Dep. of Biology

October 2020 - Present

Project title: *Role of respiration in cell bioenergetics of photosynthetic organisms using the model Physcomitrium patens.*

Supervisor: Prof. Tomas Morosinotto

Research internship – Master's Degree Thesis

Università degli Studi di Padova, IT

Lab Morosinotto, Dep. of Biology

October 2019 - October 2020

Thesis title: *Characterization of Complex IV-deficient mutants in the model organism Physcomitrella patens.*

Supervisor: Prof. Tomas Morosinotto

Summer internship

EDAR Alcúdia, ES

EDAR Alcúdia (water treatment plant in Alcúdia, Mallorca)

July - August 2019

Main tasks:

- Sampling and physical-chemical and microbiological analysis of the waters of the municipal beaches.
- Wastewater quality analysis in the different phases of treatment.
- Environmental inspection and reporting.

Supervisor: Pilar Silvente.

Research internship

Università degli Studi di Padova, IT

Lab Martello, Dep. of Medical Sciences

Main topics:

July - August 2018

- Immunofluorescence microscopy images acquisition and analysis.
- Human and murine stem cells culture.

Supervisor: Prof. Graziano Martello

Bachelor's Degree Thesis

Lab Costantini, Dep. of Biology

Università degli Studi di Padova, IT

May 2018

Thesis title: *Friedreich ataxia-induced pluripotent stem cell-derived neurons show a cellular phenotype that is corrected by a benzamide HDAC inhibitor.*

Supervisor: Prof. Paola Costantini

Practical and teaching activities

Teaching assistant 2023

Università degli Studi di Padova, IT

Tutor Junior at Dep. of Chemical Sciences (50 h)

January-February 2023

Organization and teaching of a course (18 h) for master students enrolled to the *Master's Degree in Sustainable Chemistry and Technologies for Circular Economy*.

Main topics: Generalities and properties of biological macromolecules; Cell structure and essentials of cell biology; Introduction to bioenergetics and metabolism; Replication, transcription and translation; Microbiology and virology; Biotechnology.

Tutor Junior 2022-2023

Università degli Studi di Padova, IT

Tutor Junior at Dep. of Biology (50 h)

September 2022 - Present

Mentoring 42 Italian and foreign students enrolled on the *Master's Degree in Molecular Biology*, helping them with both scientific and non-scientific aspects.

Teaching assistant 2022

Università degli Studi di Padova, IT

Tutor Junior at Dep. of Chemical Sciences (25 h)

February-March 2022

Organization and teaching of a course (16 h) for master students enrolled to the *Master's Degree in Sustainable Chemistry and Technologies for Circular Economy*.

Main topics: Generalities and properties of biological macromolecules; Cell structure and essentials of cell biology; Introduction to bioenergetics and metabolism; Replication, transcription and translation; Microbiology and virology; Biotechnology.

Tutor Junior 2021-2022

Università degli Studi di Padova, IT

Tutor Junior at Dep. of Biology (25 h)

September 2021 – July 2022

Mentoring 27 Italian and foreign students enrolled on the *Master's Degree in Molecular Biology*, helping them with both scientific and non-scientific aspects.

Teaching assistant 2021

Università degli Studi di Padova, IT

Dep. of Biology (16 h)

November 2021

Design, prepare and teach practical activities to undergraduate students enrolled in the course "Plant physiology" held by prof. Michela Zottini.

Main topics: photosynthesis, carbon and nitrogen metabolism, phytohormones.

Teaching assistant 2021

Università degli Studi di Padova, IT

Dep. of Biology (8 h)

June 2021

Organization of the workshop “*Cellular systems for studying animal and vegetal organisms*”, hosted by the Department of Biology in Padova and targeted to high school students.

Main topics: Biological models, instruments and techniques used in plant science research.

Publications

- Shun-ling Tan, Antoni M Vera-Vives, Alessandro Alboresi, Tomas Morosinotto. **Light dose activation of alternative electron transport mechanisms in the moss *Physcomitrium patens***. *Manuscript submitted for publication*.
- Antoni M Vera-Vives, Giorgio Perin, Tomas Morosinotto. **High-resolution photosynthesis-irradiance curves in microalgae**. *Bioenergetic Communications* 2022.19 (2022). DOI: [10.26124/BEC:2022-0019](https://doi.org/10.26124/BEC:2022-0019)
- Nicolò Fattore, Simone Savio, Antoni M Vera-Vives, Mariano Battistuzzi, Isabella Moro, Nicoletta La Rocca, Tomas Morosinotto. **Acclimation of photosynthetic apparatus in the mesophilic red alga *Dixoniella giordanoi***. *Physiologia Plantarum* 173: 805–17 (2021). DOI: [10.1111/ppl.13489](https://doi.org/10.1111/ppl.13489)
- Marco Mellon, Mattia Storti, Antoni M Vera-Vives, David M Kramer, Alessandro Alboresi, Tomas Morosinotto. **Inactivation of mitochondrial Complex I stimulates chloroplast ATPase in *Physcomitrium patens***. *Plant Physiology* 187: 931–946 (2021). DOI: [10.1093/plphys/kiab276](https://doi.org/10.1093/plphys/kiab276)

Mentoring

I have and am currently mentoring bachelor and master students:

- 2021 – F. P., research fellow
- 2022 – G. G., bachelor student
- 2022-23 – M. S., master student

Presentations

Oral

- “Genetic inactivation of mitochondrial complex IV in *Physcomitrium patens*”
3rd-6th July 2023 (Marseille, FR)
Plant Biology Europe 2023 – PBE23, organized by the Federation of European Societies of Plant Biology (FESPB)
- “Healthy mitochondria are needed for plants optimal photosynthetic performance: the role of respiration in plant bioenergetics and primary metabolism”
22nd-24th February 2023 (Bertinoro, IT)
Workshop on Plant Biology 2023, organized by the Italian Society of Plant Biology (SIBV)

- “The role of respiration in cell bioenergetics of photosynthetic organisms”
20th September 2021 (Bologna, IT)
Photosynthesis Meeting, hosted by Prof. Mirko Zaffagnini
- “Oxygraphy in photosynthetic organisms. Hansatech vs. Oroboros”
26th February 2021 (Padova, IT)
Green Seminar, a series of monthly seminars organized by the Department of Biology of the University of Padova.
- “First applications of the NextGen-O2k PhotoBiology Module”
15th-16th July 2020 (Innsbruck, AT)
NextGen-O2k Event Photobiology: Algal bioenergetics, organized by the company Oroboros Instruments.

Posters

- *An integrated view of early land plant evolution (EMBO workshop). Bhubaneswar, India.*
“Regulation of photosynthesis under fluctuating light conditions in the moss *Physcomitrium patens*”. Alboresi A, Beraldo C, Traverso E, Tan S, Vera-Vives AM, Storti M, Morosinotto T.
- *12th International Conference for Plant Mitochondrial Biology (ICPMB), Malmö, Sweden.*
“Healthy mitochondria are needed for optimal photosynthetic performance of plants: the role of respiration in plant bioenergetics”. Vera-Vives AM, Mellon M, Novél P, Zheng K, Gurrieri L, Sparla F, Schwarzländer M, Alboresi A, Morosinotto T.
- *Bioblast 2022, Inaugural Conference of Bioenergetics Communications. Innsbruck, Austria.*
“Consequences of the inactivation of Complex I and Complex IV in the plant model *Physcomitrium patens*”. Vera-Vives AM, Mellon M, Novél P, Zheng K, Gurrieri L, Sparla F, Schwarzländer M, Alboresi A, Morosinotto T

Languages

- **Catalan** – Native speaker, certificate C1
- **Spanish** – Native speaker
- **Italian** – Proficient level, certificate C1
- **English** – Advanced level