

# Otho Mantegazza

*Biologist and Data Scientist*

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## Work Experience

January 2018 - December 2018

**Postdoc at IRD** (Institut de Recherche pour le Développement)

During this period I have been working on the **architecture of rice panicles**, a trait of agronomic interest.

I've helped a research team to **analyze and visualize phenotypic and transcriptomic data**. With those data we detected which gene controls panicle branching of Asian and African Rices.

**Reference Contact:** Dr. Stephane Jouannic [stephane.jouannic@ird.fr](mailto:stephane.jouannic@ird.fr)

April 2015 - October 2017

**Postdoc at CEPLAS** (Cluster of Excellence in Plant Science)

During this period I have investigated the genetic basis of alternative photosynthetic systems which could improve crop yield in warm and dry climate.

My main tasks have been to **analyze transcriptomic data** and to **supervise a PhD student** that used **genome editing** to mimic the first stages of evolution of C4 photosynthesis in a C3 model plant.

**Reference Contact:** Prof. Andreas Weber [andreas.weber@uni-duesseldorf.de](mailto:andreas.weber@uni-duesseldorf.de)

November 2011 - November 2014

**PhD Student at the University of Milan**

Under the guidance of **Professor Martin Kater** and **Dr. Veronica Gregis** I have researched which gene control flower development in plants.

During my PhD I have also supervised several master student which contributed to my research projects.

**Reference Contact:** Prof. Martin Kater [martin.kater@unimi.it](mailto:martin.kater@unimi.it)

February 2010 - October 2011

**Scientific Museum Guide**

At the *Museo Nazionale della Scienza e della Tecnologia Leonardo da Vinci* I have been conducting tours in the sections about air, land and water transport.

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## Tools

### R

Proficient in **R** for data analysis. Both with **base R** and with **Bioconductor** and **Tidyverse** packages.

Elements of **R package** development.

### Git

Version control with **Git** and **Github**.

### Others

Elements of **Python**, elements of **bash**, and elements of **Web development**; mostly with **static website** generators and with **D3.js** for data visualization.

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## Skills

**Data analysis and data visualization in R** Data wrangling, visualization and communication. Intermediate statistical modeling and R programming. Check a collection of my dataviz [here on my website](#)

**Bioinformatic analysis** Mapping and quantifying of transcriptomic data. Elements of *de novo* assembly and annotation of genomes. Statistical analysis of transcriptomic data, elements of proteomics and metabolomics data analysis. Modeling of phenotypic data.

**Molecular Biology** Molecular cloning, genome editing, real-time qPCR, Laser microdissection.

**Communication** Data visualization, elements of web development and markdown.

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## Education

### PhD in Biomolecular Sciences

Awarded in **November 2014**

*Università degli Studi di Milano, Department of Biosciences, Milan, Italy.*

### Master of Science in Molecular Biotechnology,

Awarded in **October 2011**,

*Università degli Studi di Milano, Milano, Italy.*

### Bachelor of Science in Industrial and Environmental Biotechnology

Awarded in **October 2009**,

*Università degli Studi di Milano, Milan, Italy.*

### Diploma Liceo Scientifico (High School)

**September 2001 - July 2006**,

*Scuola Rudolf Steiner, Milano <https://www.scuolasteinermilano.it/>*

## Selected Publications

Hahn, Florian, **Otho Mantegazza**, André Greiner, Peter Hegemann, Marion Eisenhut, and Andreas PM Weber. An efficient visual screen for CRISPR/Cas9 activity in *Arabidopsis thaliana*. *Frontiers in plant science* 8 (2017).

Lundquist, Peter K., **Otho Mantegazza**, Anja Stefanski, Kai Stühler, and Andreas PM Weber. Surveying the oligomeric state of *Arabidopsis thaliana* chloroplasts. *Molecular plant* 10, no. 1 (2017): 197-211.

**Mantegazza, Otho**, Veronica Gregis, Matteo Chiara, Caterina Selva, Giulia Leo, David S. Horner, and Martin M. Kater. Gene coexpression patterns during early development of the native *Arabidopsis* reproductive meristem: novel candidate developmental regulators and patterns of functional redundancy. *The Plant Journal* 79, no. 5 (2014): 861-877.

## Languages

Italian (native), English (fluent), German (beginner), French (beginner).