



## Damiano Riommi

**Nationality:** Italian **Date of birth:** 07/01/1998 **Gender:** Male

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📍 **Work:** Viale dell'Università,16, 35020 Legnaro (Italy)

### WORK EXPERIENCE

#### Research Fellow, Project: "Genetics and genomics of REproductive systems in pAnTs" PRIN 2022 (GREAT) (under the supervision of Prof. Barcaccia)

*Università degli Studi di Padova-DAFNAE* [ 01/03/2024 – 28/02/2025 ]

City: Legnaro(PD) | Country: Italy

##### Main Activities:

**Genomic and transcriptomic analyses** of reproductive traits in *Cichorium*, focusing on genetic markers and differentially expressed genes related to fertility. Bioinformatics analyses for gene expression profiling and variant identification

**Thesis Co-Supervisor** for the master's thesis of Carla Perzia (Master's Degree in *Biotechnologies for Food Science*), titled "*Trascritto mica della bacca in due varietà di vite contrastanti per epoca di maturazione*", supervised by Professor Alessandro Vannozzi. Provided guidance on research design, data analysis, and result interpretation

#### Internship-Applied and Comparative Genomics Laboratory (under the supervision of Prof. Gerdol)

*Università degli Studi di Trieste-Dipartimento di Scienze della Vita* [ 01/03/2022 – 01/03/2023 ]

City: Trieste | Country: Italy

##### Main Activities:

Use of a bioinformatic approach for **transcriptomic and genomic analyses** in comparative genomics of mollusks of the genus *M. ytilus*, aimed at identifying and studying antimicrobial peptide families

#### Practical Apprenticeship-Physical Chemistry Laboratory (under the supervision of Prof. Latterini)

*Università degli Studi di Perugia-Dipartimento di Chimica, Biologia e Biotecnologie* [ 24/08/2020 – 28/08/2020 ]

City: Perugia | Country: Italy

##### Main Activities:

Use of spectrometry techniques to investigate the behaviour of amyloid aggregates in response to gold nanoparticles

### EDUCATION AND TRAINING

#### High Performance Bioinformatics (training course)

*CINECA* [ 04/12/2024 – 06/12/2024 ]

City: Roma | Country: Italy

##### Main subjects:

- Development, execution and optimization of bioinformatics pipelines to reduce computing time and disk usage
- Analysis of bottlenecks in pipelines and use of high-performance parallelization tools
- Case study on transcriptome data analysis

#### Master Degree in Functional Genomics

*Università degli Studi di Trieste* [ 2020 – 2023 ]

City: Trieste | Country: Italy | **Final grade:** 108/110 | **Thesis:** Bioinformatic study on myticalins: molecular evolution, presence/absence variation and expression analysis

**Supervisor:** Prof. Marco Gerdol

**Co-supervisor:** Dott. Samuele Greco

## **Bachelor Degree in Biotechnology**

*Università degli Studi di Perugia* [ 2017 – 2020 ]

City: Perugia | Country: Italy | Final grade: 110/110 | Thesis: Studio degli effetti di nanoparticelle d'oro su aggregati amiloidi di insulina

**Supervisor:** Prof. Loredana Latterini

**Co-supervisor:** Dott. Giulia Quaglia

## **High School Scientific Diploma**

*Liceo Scientifico Guglielmo Marconi* [ 2012 – 2017 ]

City: Foligno | Country: Italy | Final grade: 100/100

## **PUBLICATIONS**

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[2023]

[Unveiling the Impact of Gene Presence/Absence Variation in Driving Inter-Individual Sequence Diversity within the CRP-I Gene Family in \*Mytilus\* spp.](#)

Gualandi N, Fracarossi D, Riommi D, Sollitto M, Greco S, Mardirossian M, Pacor S, Hori T, Pallavicini A, Gerdol M. Genes. 2023; 14(4):787.

## POSTERS AND ORAL PRESENTATIONS

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[ 18/09/2024 – 20/09/2024 ]

### XVII FISV Congress-Padova,Italy

- Damiano Riommi, F. Scariolo, A. Tondello, G. Barcaccia: **Genotyping through ddRADseq in Kabocha squash (*Cucurbita maxima* L.): identification of discriminant molecular loci for breeding and commercial products tracing**
- Giovanni Gabelli, G. Magon, D. Riommi, A. Betto, G. Barcaccia, F. Palumbo: **Chromosome level genome assembly combined with metabolomic analyses and WGS of 100 worldwide varieties elucidated the volatile compounds production in fennel (*Foeniculum vulgare*)**
- Angelo Betto, D. Riommi, F. Palumbo, S. Farinati, G. Barcaccia: **Is ddRADseq able to predict ploidy in *Lantana camara* L.?**
- Samela Draga, F. Palumbo, S. Farinati, D. Riommi, J. Joseph, G. Gabelli, M.A. Mendes, A. Cavalleri, F.A. Soria Garcia, A. Vannozi, G. Barcaccia: **Exploring the Dynamics of Self-Incompatibility system in chicory**
- Francesco Scariolo, S. Draga, A. Tondello, D. Riommi, G. Barcaccia: **NGS-based phylogenetic analysis and discriminant loci identification in *Cichorium* crops: a comparison between species, biotypes and varieties**

[ 14/02/2024 – 16/02/2024 ]

### XXIV Meeting of the Italian Association of Developmental and Comparative Immunobiology (IADCI)-Modena,Italy

- M Gerdol, D. Riommi, S Greco, A Pallavicini : **The mytilin gene cluster: shedding light on the enigmatic origin of mussel dispensable genes**

[ 06/09/2023 – 08/09/2023 ]

### 10th International Meeting on Antimicrobial Peptides-Trieste, Italy

- Gerdol M, Mardirossian M, Riommi D, Pacor S, Scocchi M, Pallavicini A : **Discovering novel antimicrobial peptides through the bioinformatics mining of metazoan genomes and transcriptomes: the case of myticalins**

[ 13/02/2023 – 15/02/2023 ]

### XXIII Meeting of the Italian Association of Developmental and Comparative Immunobiology (IADCI)-Napoli, Italy

- Gualandi N, Fracarossi D, Riommi D, Sollitto M, Greco S, Mardirossian M, Pacor S, Hori T, Pallavicini A, Gerdol M: **How does gene presence/absence variation shapes the repertoire of defense molecules in marine mussels? The case of CRP-I, cysteine rich peptides belonging to the knottin superfamily**

## LANGUAGE SKILLS

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Mother tongue(s): Italian

Other language(s):

English

LISTENING B2 READING B2 WRITING B2

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

## DIGITAL SKILLS

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Microsoft Office package: Microsoft Word, Excel, PowerPoint, Access / Libre Office (Libre Writer, Libre Calc) / R, RStudio / Linux (Terminal Commands, Bash/Shell) / SLURM HPC / Windows Subsystem for Linux (WSL 2)

## JOB-RELATED SKILLS

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### Bioinformatics

- **Experience in HPC Cluster Environments:** Proficient in utilizing HPC infrastructure for large-scale data analysis, parallel processing, and optimization of bioinformatics workflows.
- **NGS Data Analysis:** Skilled in processing NGS data, including whole genome analysis, assembly, quality control, alignment, variant calling, and functional annotation to interpret genomic information.
- **Transcriptomic Data Analysis:** Expertise in RNA-seq data processing, interpretation, and visualization, including performing differential gene expression analysis.
- **VCF (Variant Calling Format) Pipeline Development and Analysis:** Experience in developing and optimizing VCF pipelines for variant calling, filtering, and annotation.
- **Phylogenetic Analysis:** Proficient in conducting sequence alignment, tree construction, and evolutionary relationship inference to study genetic diversity and evolutionary patterns.
- **Statistical Analysis and Data Visualization in R:** Advanced in using R for statistical analysis, modeling, and visualizing complex biological datasets.

### Laboratory Skills

- PCR, DNA and RNA extraction
- Nucleic acids quantification ( Qubit and NanoDrop)
- Spectrophotometric analysis for peptide quantification