europass

Greta Amendola

Home :

Email:

Gender:

ABOUT MYSELF

I am a curious and motivated molecular biotechnologist with a particular interest in molecular microbiology.
I'm focused, a team player and I am always open to new experiences to develop new skills and solve new challenges.

WORK EXPERIENCE

Consiglio Nazionale delle Ricerche - Istituto di Nanoscienze

City: Pisa | **Country:** Italy

[01/09/2024 - Current] **Professional research contract (assegno di ricerca professionalizzante)**

Reasearch activity focused on the evaluation of antimicrobial effect of black phosphorus nanoflakes and natural photosensitizers on multi-drug resistant bacteria.

University of Pisa

City: Pisa | **Country:** Italy

[11/2023 - 05/2024] **Curricular internship**

Research activity focused on the bacteriophage application for difficult-to-treat musculoskeletal infections, especially caused by *Staphylococcus epidermidis*.

Laboratory of Gene Technology, KU Leuven

City: Leuven | **Country:** Belgium

[09/2020 - 05/2021] **Curricular internship**

Research activity focused on the bacteriophage application for difficult-to-treat musculoskeletal infections, especially caused by *Staphylococcus epidermidis*.

University of Pisa

City: Pisa | **Country:** Italy

[02/2017 - 04/2017] **Curricular internship**

Research activity focused on the evaluation of inhibitory activity of hLF 1-11 peptide on biofilm formation in *Candida parapsilosis*.

EDUCATION AND TRAINING

[09/2018 - 06/2024] **Master's Degree in Molecular Biotechnologies**

University of Pisa joint with Sant'Anna School of Advanced Studies

City: Pisa | **Country:** Italy | | **Final grade:** 110/110 | **Level in EQF:** EQF level 7 | **Type of credits:** CFU | **Number of credits:** 120 | **Thesis:** Phylogenetic study of Staphylococcus epidermidis clinical isolates and their susceptibility to phages

[09/2022 - 11/2022] **Teaching Qualification 24 CFU (Training Course)**

eCampus University

Country: Italy | | **Type of credits:** CFU | **Number of credits:** 24

[09/2014 - 12/2018] **Bachelor's Degree in Biological Sciences**

University of Pisa

City: Pisa | **Country:** Italy | | **Final grade:** 100/110 | **Level in EQF:** EQF level 6 | **Type of credits:** CFU | **Number of credits:** 180 | **Thesis:** Delivery of mucosal vaccines

[09/2009 - 07/2014] **Linguistic High School Graduate**

Liceo Scientifico "Giuseppe Terragni"

City: Olgiate Comasco (CO) | **Country:** Italy | | **Final grade:** 74/100 | **Level in EQF:** EQF level 4

LANGUAGE SKILLS

Mother tongue(s): Italian

Other language(s):

English

LISTENING B2 **READING** B2 **WRITING** B2

SPOKEN PRODUCTION B2 **SPOKEN INTERACTION** B2

German

LISTENING B1 **READING** B1 **WRITING** B1

SPOKEN PRODUCTION B1 **SPOKEN INTERACTION** B1

French

LISTENING A2 **READING** A2 **WRITING** A2

SPOKEN PRODUCTION A2 **SPOKEN INTERACTION** A2

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

SKILLS

Microsoft Office (Outlook, Excel, Word, PowerPoint) | Competence on R statistical tool (R, R Comander, R Markdown) | NCBI tools (Genbank, BLAST) | Unicycler | SPAdes | Trimmomatic | Quality Control (FASTQC, MultiQC) | QUAST | Prokka | Roary | RAxML | Interactive tree of life (iTOL) | VIPtree | ABRicate | PHASTER | Crispr-cas++ | Shovill | VirulenceFinder 2.0 | HMMER | BANDAGE | RASTtk | EasyFig | Artemis | Snippy | GraphPad Prism, GraphPad Software Inc. | Operating Systems: Microsoft Windows, Android

PROFESSIONAL SKILLS

Technical skills

- Manipulation of pathogenic bacteria and fungi in BLS2 (*Staphylococcus epidermidis, Staphylococcus aureus, Pseudomonas aeruginosa, Escherichia coli, Candida parapsilosis, Candida albicans*)
- Isolation and purification of bacteriophages
- DNA and RNA extraction
- RNA retro-transcription in cDNA and real time RT-PCR
- Oxford Nanopore sequencing
- Bacterial and phage genome bioinformatic analysis from sequencing Illumina and Nanopore
- Phenotypic characterization of bacteriophages
- Evaluation of antibacterial activity of antimicrobial agents (antibiotics, drugs, bacteriophages)
- *In vitro* biofilm formation and evaluation of antibiofilm activity of antimicrobial agents (antibiotics, drugs, bacteriophages)

PUBLICATIONS

[2025] **Natural biomolecules and light: antimicrobial photodynamic strategies in the fight against antibiotic resistance**

Invited review in preparation.

Authors: Greta Amendola, Mariagrazia Di Luca, Antonella Sgarbossa | **Journal Name**: International Journal of Molecular Sciences

CONGRESS COMMUNICATIONS

[03/04/2025 – 05/04/2025] **INF-ACT CONFERENCE 2025 - One Health Basic and Translational Actions Addressing Unmet Needs on Emerging Infectious Diseases - “a step ahead”**

Poster title: Black phosphorus nanomaterials and natural molecules for new therapeutic strategies against antibiotic resistant bacteria

Authors: Greta Amendola, Mariagrazia Di Luca, Elisa Passaglia, Paolo Faraci, Stefano Luin, Valentina Tozzini, Giorgia Brancolini and Antonella Sgarbossa

[05/06/2025 – 06/06/2025] **Nanoscience Institute 4th workshop “Reconnecting, inspiring interactions“**

Poster title: Innovative black phosphorus nanoplatform for light antimicrobial therapy

Authors: Greta Amendola, Faezeh Soofivand, Mariagrazia Di Luca, Elisa Passaglia, Paolo Faraci Stefano Luin and Antonella Sgarbossa

CONFERENCES & SEMINARS

[03/04/2025 – 05/04/2025] **INF-ACT CONFERENCE 2025 - One Health Basic and Translational Actions Addressing Unmet Needs on Emerging Infectious Diseases - “a step ahead”**
University of Naples

[11/09/2024 – 12/09/2024] **INF-ACT Meeting 2024** University of Pavia

Focus on One Health Basic and Translational Research Actions addressing Unmet Needs on Emerging Infectious Diseases.

[2023 – 2024] **Viruses of Microbes Webinars series 2023/2024**

Focus on different topics: ecological and functional roles of viruses; virus–microbe interactions in plants; virus–like elements; virus evolution; phage therapy; persistent viruses.

[2020] **Viruses of Microbes Webinars series 2020**

Focus on different topics: ecology and evolution of microbial viruses; virus structures and function; virus–host interaction: overcoming cell barriers; virus–host interaction: molecular mechanisms; agro–food,veterinary and environmental biotechnology applications; biotechnology applications in health care.

[11/2020] **I-GENE project -Training School** Pisa

Focus on "How can nanomedicine be used for precise genome editing?", overview of the use of CRISPR/Cas9 technique as a powerful tool for gene editing.

Project funded by European Union's Horizon 2020.

[10/2020] **Bio[TECHNO]logical Event** Pisa

Seminars topic on "Coronavirus: what we have learnt and what we have yet to discover".

HONOURS AND AWARDS

[2020] **Erasmus+ Grant Awarding institution:** University of Pisa

Winner of the Erasmus Grant for eight–month traineeship at Katholieke Universiteit Leuven (Belgium)

In compliance with the GDPR and the Italian Legislative Decree no. 196 dated 30/06/2003, I hereby authorize you to use and process my personal details contained in this document

Pisa, 12/05/2025

Greta Amendola