

Gabriele Coppola

Home :

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Date of birth: 1 Apr 1999 Nationality: Italian

ABOUT ME

Highly organised and multitasking Research Fellow focused on Bioinformatics and Biotechnology. Great excitement to work with huge willingness and interest in learning new things combined with excellent time management.

WORK EXPERIENCE

[Feb 2023 – Current]

Bioinformatics scientist

Institute of Experimental Endocrinology and Oncology "Gaetano Salvatore" (IEOS), CNR

Address: Via Pansini 5, 80131, Naples, Italy

Business or sector: Professional, scientific and technical activities

- Development of a Knowledge-based platform in collaboration with **EXSCALATE, Dompé**.
- Analysis of databases and datasets for the identification of potential drug targets in diseases.
- Analysis of protein and RNA structures.
- Analysis of protein and aptamer interactions.
- Analysis of Transcriptomics and Proteomics data.
- Research and application of aptamer-chemotherapy combined therapy and RNA therapeutics.

[Oct 2022 – Feb 2023]

Postgraduate Trainee

Institute of Experimental Endocrinology and Oncology "Gaetano Salvatore" (IEOS), CNR

Address: Via Pansini 5, 80131, Naples, Italy

Business or sector: Professional, scientific and technical activities

- Research and applications in targeting the interplay between Cancer Associated Fibroblasts (CAFs) and Non-Small Cell Lung Cancer (NSCLC) cells with aptamer-miRNA/siRNA conjugates.
- Research and applications of RNA therapeutics.
- Research and applications in tumor microenvironment.
- Ex-vivo and 3D cultures.
- Computational analysis of databases for target identification and drug repurposing.
- Development of a Knowledge-based platform in collaboration with **EXSCALATE, Dompé**.

[Dec 2019 – Jul 2022]

Undergraduate Trainee

University of Naples "Federico II" - CNR IEOS

Address: Via Pansini 5, 80131, Naples, Italy

Name of unit or department: Molecular Medicine and Medical Biotechnology

Business or sector: Professional, scientific and technical activities

- Research and application of nucleic acid aptamers employed as therapeutic and delivery tools in the field of molecular oncology, especially in Non-Small Cell Lung Cancer (NSCLC) cells, Cancer Associated Fibroblasts (CAFs) and Glioblastoma (GBM) stem cells.
- Research and applications in tumor microenvironment.
- Research and application of aptamer-chemotherapy combined therapy and RNA therapeutics.
- Image and data analysis.
- Database analysis.

EDUCATION AND TRAINING

[Dec 2022]

Biologist Professional Qualification sez. A

University of Sannio

Address: Via Traiano 3, 82100, Benevento, Italy

Field(s) of study: Biology

Principal subjects covered: Chemistry, Biology, Genetics, Botany, Microbiology, Ecology, Nutrition, Hygiene, Anatomy, QC

05/01/2024

French

LISTENING B2 READING B2 WRITING B1

SPOKEN PRODUCTION B1 SPOKEN INTERACTION B1

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

DIGITAL SKILLS

Microsoft Office skills

Microsoft Word | Power Query | Microsoft OneNote | Microsoft Excel | Microsoft Powerpoint

Programming skills

Linux (Terminal Commands, Bash/Shell) | Python Basics | SQL Basics | R software | Pipeline Pilot

Statistics skills

GraphPad | Biostatistics with R | Statistics with R

Organisational and Planning skills

Strategic Planning | Prioritization | Identify Alternatives | Determination | Time Management | Scheduling | Motivation

Analytical skills

Data Science, Data Analytics, Data Visualization | Image processing and analysis | Critical thinking | Research | Data Processing | TIBCO Spotfire | Creativity | Data Manipulation | Data Analysis | Logical Reasoning

Soft skills

Flexibility | Problem-solving | Adaptability | Team-work oriented | Good listener and communicator | Responsibility | Willingness to learn | Efficient multi-tasking | Decision-making | Reliability | Excitement for challenges | Decisiveness | Passion for work | Ability to Work Under Pressure

Communication skills

Excellent writing and verbal communication skills | Cross cultural skills | Versatility

Bioinformatics skills

Sequence Alignment | Multiple Sequence Alignment | Bioinformatics with R | Differential Expression Analysis | Bioinformatics Databases | Ensembl Genome Browser | Pathway Analysis | Protein-Ligand docking | Mascot Proteomics Analysis | Protein, DNA, RNA interactions analysis | The Human Protein Atlas | Phylogenetic Analysis | Phylogenetic Tree Construction | Protein structure prediction | Metacore | Protein Structure Analyzing | RNA Structure Prediction | AutoDock, AutoDock Vina (basics) | Online Tool for Bioinformatics (BLAST, GeneCards, Gene Ontology, KEGG, etc.) | PandaOmics | Cytoscape | MEGA

BIOLOGY SKILLS

Biochemistry and molecular biology skills

- PCR, Real-Time PCR, retrotranscription
- Western blot, immunoblotting
- ELISA, ELONA
- Acrylamide and agarose gels, gel electrophoresis
- DNA extraction, RNA extraction, protein extraction

Cell biology skills

- Cancer and non-cancer cell culture
- Cancer stem cell culture
- Patient-derived cell culture, primary cell culture
- Cell immunofluorescence
- Cell transfection
- Cell viability assay (MTT, MTS)
- Colony assay
- Migration and invasion assay
- Coculture systems
- Wound healing assay
- Tube formation assay
- Hanging drop assay
- Spheroid cell culture
- 3D and Ex-vivo cell cultures

09/01/2024

[Oct 2020 – Sep 2022]

Master's Degree in Medical Biotechnology

University of Naples "Federico II"

Address: Via Tommaso De Amicis 95, 80131, Naples, Italy

Field(s) of study: Biotechnology

Final grade: 110/110 cum laude

Thesis: Inhibition of tumour cells interplay with Cancer-Associated Fibroblasts in Non-Small-Cell Lung Cancer using an aptamer conjugate silencing STAT3

Curriculum: Advanced Technologies (in English)

Principal subjects covered: Molecular Biology, Biotechnology, Cell Biology, Pharmacology, Oncology, Regenerative Medicine, Gene Therapy, Bioinformatics

[Oct 2017 – Sep 2020]

Bachelor's Degree in Biotechnology (Biotechnologie per la Salute)

University of Naples "Federico II"

Address: Via Tommaso De Amicis 95, 80131, Naples, Italy

Field(s) of study: Biotechnology

Final grade: 110/110 cum laude

Thesis: Use of the Western Blot technique for the analyses of the interplay between CAF and NSCLC cells

Curriculum: Medical

Principal subjects covered: Biology, Chemistry, Biochemistry, Genetics, Anatomy, Physiology, Histology, Microbiology, Diagnostics

[Sep 2012 – Jul 2017]

High School Diploma in Applied Sciences

Scientific High School "Tito Lucrezio Caro"

Address: Via Duomo 1, 84087, Sarno (SA), Italy

Final grade: 96/100

Principal subjects covered: Mathematics, Physics, Biology, Geology, Chemistry, Informatics

CERTIFICATIONS

[May 2023]

Carreer Essentials in Data Analysis

Microsoft

[Nov 2022]

Test de Connaissance du Français

France Education International

[Mar 2022]

B2 Cambridge Assessment English

Cambridge Assessment

[Jun 2021]

Microsoft Office Specialist Excel 2016

Microsoft

[Jun 2021]

Microsoft Office Specialist Word 2016

Microsoft

[Jun 2021]

Microsoft Office Specialist PowerPoint 2016

Microsoft

LANGUAGE SKILLS

Mother tongue(s): Italian

Other language(s):

English

LISTENING C1 READING C1 WRITING C1

SPOKEN PRODUCTION C1 SPOKEN INTERACTION C1

05/01/2024

COMMUNICATION AND INTERPERSONAL SKILLS

Great social skills with the aptitude of working in a team

Great attention in collaboration and conflict resolution building a trusted relationship with other team members. Good versatility developed during university years where courses stimulate team collaborations allowing multicultural exchanges with students belonging to all parts of the world.

HONOURS AND AWARDS

[Mar 2023]

Premio Tesi di Laurea Tonino di Pasquale Awarding institution: Department of Molecular Medicine and Medical Biotechnology, University of Naples "Federico II"

PUBLICATIONS

[2023]

Directing in vitro selection towards G-quadruplex-forming aptamers for the development of efficient inhibitors of HMGB1 pathological activity

Under review

Napolitano E, Criscuolo A, Riccardi C, Esposito CL, Catuogno S, Coppola G, Roviello GN, Montesarchio D, Musumeci D

Angewandte Chemie

[2023]

The Small RNA Landscape in NSCLC: Current Therapeutic Applications and Progresses

Ciccone G, Ibba ML, Coppola G, Catuogno S, Esposito CL

International Journal of Molecular Sciences

[2023]

STAT3 silencing by an aptamer-based strategy hampers the crosstalk between NSCLC cells and cancer-associated fibroblasts

Ibba ML, Ciccone G, Rotoli D, Coppola G, Fiorelli A, Catuogno S, Esposito CL

Molecular Therapy-Nucleic Acids

[2021]

New aptamer-based approaches for the targeting of cancer associated fibroblast in NSCLC

Ciccone G, Ibba ML, Coppola G, Petrillo G, Catuogno S, Esposito CL

Siberian Medical Review

CONFERENCES AND SEMINARS

[Jun 2023]

High-resolution spatial analysis of lung cancers reveals heterogeneity in tumor microenvironments

SelectScience

[May 2023]

AI Infra @Scale Meta AI

[May 2023]

Scaling Next-Generation Sequencing in Cancer and Drug Discovery Tecan

[Mar 2023]

Department of Molecular Medicine and Medical Biotechnology Retreat University of Naples "Federico II"

[Feb 2023]

V Workshop "I Chimici per le Biotecnologie" CESTEV

[Nov 2022]

3rd IBBR Memorial Workshop IBBR

Ibba ML, Ciccone G, Coppola G, de Francis V, Di Ruscio A, Catuogno S, Esposito CL

Selective targeting of DNA Methylation through nucleic acid aptamers for non-small cell lung cancer therapy

[Apr 2022]

Cnr-Dsb conference: Target discovery for unmet medical needs and precision/personalized medicine

CNR

Ibba ML, Ciccone G, Coppola G, Petrillo G, Fiorelli A, Esposito CL, Catuogno S

Targeting of Cancer associated fibroblast in NSCLC by new aptamer-based approaches

05/01/2024

HOBBIES AND INTERESTS

Playing classical and electric guitar

Pre-academic course of classical guitar, solfeggio and armonia completed from Conservatory of Music "Giuseppe Martucci", Salerno
Love playing with anyone

Playing electric bass

Love playing with anyone

Drawing

Gardening

05/01/2024