### Francesca Lagravinese

Rome, Italy | Available for relocation

### PROFESSIONAL SUMMARY

- Molecular and Medical Biotechnologist highly motivated to expand expertise and explore innovative approaches to positively impact healthcare
- Experienced in molecular and biochemical assays as well as cell culture
- Proactive mindset, strong interpersonal skills, and teamwork ability developed in diverse social and working contexts, including international environments

### **WORK EXPERIENCE**

# Nov 2023 - Aug University of Verona | Department of Neuroscience, Biomedicine, and Movement, Verona, Italy

Graduate Intern - Biological Chemistry laboratory

- Investigated Milk Extracellular Vesicles as drug delivery systems to optimize therapeutic delivery
- Developed and optimized the isolation and characterization protocol achieving a particle concentration of 10e12 particles/ml
- Assessed the efficacy of myricetin encapsulation and its uptake by MDA-MB231 breast cancer cells, reaching an encapsulation efficiency (EE%) of 34%

### Apr 2023 - Sep 2023

### Kyoto Institute of Technology | Faculty of Applied Biology, Kyoto, Japan

Graduate Intern - Advanced Cell Signalling and Engineering laboratory

- Investigated the anti-inflammatory and anti-cancer properties of Curcumin, Hederagenin and Sericic Acid on A549 Human lung Adenocarcinoma cells
- Performed advanced assays, including ELISA and MTT, to evaluate cellular responses and therapeutic potential
- Demonstrated that Hederagenin effectively reduced cancer cell viability by 50%, contributing to potential therapeutic applications

### Dec 2019 - Jan 2020

Catholic University of the Sacred Heart | Institute of Genomic Medicine, Rome, Italy Undergraduate Intern- Molecular Biology laboratory

 Applied Polymerase Chain Reaction (PCR) and genome sequencing to identify new gene variants, associated with pathologies such as PFAPA, haematuria and Asperger syndrome

### **EDUCATION**

### Oct 2021 - Oct 2024

### University of Verona, Verona, Italy

Master of Science - Molecular and Medical Biotechnology

• Master thesis: Bovine-Milk Derived Extracellular Vesicles as Nanocarriers for Delivering the Natural Polyphenol Myricetin

## Apr 2023 - Sep 2023

### **Kyoto Institute of Technology, Japan**

International exchange student

## Oct 2017 - May 2021

# Tuscia University, Department of Innovation in Biology, Agri-food and Forest systems, Viterbo, Italy

Bachelor of Science-Biotechnology

Bachelor Thesis: Bioethics of Gene Therapy: from basic research to applied research

- Conducted in depth-research on bioethical challenges posed by gene therapy including societal, legal and clinical implications
- Developed an ethical decision model and applied it to real clinical scenarios

15-02-25 Page | 1

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#### OTHER RELEVANT EXPERIENCE

### **Lab Mentoring**

Supported an undergraduate student reviewing his dissertation ensuring clarity, rigor and coherence

### **Lab Admin Activities**

- Assisted in designing experiments aligned with research goals and methodology
- · Participated in lab meetings to discuss ongoing projects
- · Maintained laboratory organization, safety protocols and hazardous waste disposal

### **PUBLICATION**

Nakano K, Yokota Y, Vu QV, **Lagravinese F**, Kataoka T. Structure-Activity Relationship of Oleanane-Type Pentacyclic Triterpenoids on Nuclear Factor kB Activation and Intracellular Trafficking and N-Linked Glycosylation of Intercellular Adhesion Molecule-1.

### **SOFT SKILLS**

- Communication and Teamwork: Collaborated with an international research team in Japan, fostering an effective and positive environment
- Problem Solving: Overcame experimental challenges with a critical, analytical approach
- Time Management: Managed research projects, meeting deadlines while maintaining high-quality research outcomes

### SOFTWARE SKILLS

- Office Productivity: Intermediate proficiency in MS Office Suite (Word, Excel, PowerPoint)
- Communication Platforms: LinkedIn and other social networking tools

### VOLUNTEERING

### SCOUT AGESCI: Civil Rights and Social Action

- Volunteered in an apolitical movement focused on educating young people to become responsible, active citizens, developing leadership, autonomy, and teamwork.
- Contributed to voluntary service in challenging contexts like prisons, family homes, and nursing homes, promoting civic values and social responsibility.

#### LANGUAGES

• Italian (Native), English (Fluent), Spanish (Intermediate) and French (Intermediate)

### ADDITIONAL INFORMATION

- Driving License: Category B
- Car Owner: Owns a car and available for travel