# Curriculum Vitae

## Tunahan Ergünay

### **Personal information**

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Address Molecular Biotechnology Center (Lab 10)

Via Nizza 52,

10126, Torino (TO), Italy

Languages Turkish (native) and English

### **Education**

2022-	Doctorate	Medical Physiopathology University of Turin, Italy
2019-2022	Master in Science	Molecular Biology & Genetics Bogazici University, Turkiye
2014-2019	Bachelor science	Molecular Biology & Genetics Gebze Technical University, Turkiye

## **Experience**

2019-2022	Teaching assist.	Laboratory lessons for BS. students "Biochemistry laboratory Cell Biology laboratory" Bogazici University, Turkiye
2018	Research intern	"Analysis of cancer tissues from osteosarcoma and liposarcoma patients."  Stem Cell and Gene Therapies Research & Applied Center, Kocaeli University, Turkey PI: Prof. Yusufhan Yazır

# Experience

2018	Research intern	"Investigation of upstream and downstream pathways of SIK2 protein and its role in ER stress."  Obesity and Diabetes laboratory, Gebze Technical University, Turkiye PI: Prof. Ferruh Özcan
2018	Research intern	"Analysis of cancer tissues from osteosarcoma and liposarcoma patients."  Stem Cell and Gene Therapies Research & Applied Center, Kocaeli University, Turkey PI: Prof. Yusufhan Yazır
2017	Research intern	"Characterizing bacterial specimens from Sea of Marmara." Bacteriology laboratory, Gebze Technical University, Turkey PI: Asst. Prof. Sonay Özkan

## **Projects**

2022-	PhD. Thesis	"Klotho engineered extracellular vesicle in chronic kidney disease preclinical models" PI: Prof. Benedetta Bussolati
2019-2022	MSc. Thesis	"Investigation of The Effects of SUMO Modification Two Critical Proteins: A Pathogenic NEK1 Mutant That Drives ALS Pathogenesis and The CRISPR-Associated Cas9 Protein" PI: Assoc. Prof. Umut Şahin

### **Publications**

2023 | Ergunay, T., Collino, F., Bianchi, G. et al. Extracellular

vesicles in kidney development and pediatric kidney

diseases. Pediatr Nephrol (2023).

https://doi.org/10.1007/s00467-023-06165-9

Ergünay, T., Ayhan, Ö., Celen, AB. et al. Sumoylation of

Cas9 at lysine 848 regulates protein stability and DNA

binding. Life Sci Alliance (2022).

https://doi.org/10.26508/lsa.202101078

### Funding and scholarships

2022-2025 | Doctoral scholarship funded by Ministry of Education,

University and Research (MIUR), Italy

2020-2022 | Project support (119N095), "SUMO-related pathogenesis

of Nek1-related Amyotrophic Lateral Sclerosis (ALS) and its role in a potential treatment", Scientific and Technological Research Council of Türkiye (TUBITAK),

Turkiye

#### Skills

Wet lab Cell culture techniques (passaging, transfection,

transduction and CRISPR)

Extracellular vesicle studies (isolation, characterization,

analysis and uptake assays)

Protein-based assays (Immunoprecipitation,

immunofluorescence, immunoblot, flow cytometry,

proximity ligation assay, and ELISA)

Microscopy (fluorescence and confocal microscopy)

Nucleic acid studies (RNA and DNA isolation, PCR, RT-

PCR, qPCR, and site directed mutagenesis)

Software Data analysis tools (ImageJ, Graphpad Prism, Image Lab,

FlowJo

Sequence design tools (Benchling, Snapgene and Jalview)

Protein modelling (PyMOL)

#### **Published artworks**

Journal cover, Life science alliance, April 2022 (vol: 5, n:4)

#### References

#### Prof. Benedetta BUSSOLATI

PhD. Thesis advisor

Dept. of Molecular Biotechnology and Health Sciences

University of Turin, Italy

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### Assoc. Prof Umut ŞAHİN

MSc. Thesis advisor

Dept. of Molecular Biology and Genetics

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#### Prof. Ferruh OZCAN

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