



MARCO BASILE
Biotechnologist

Professional Profile

Highly motivated Biotechnologist and Neuroscience PhD candidate at IBEC–University of Barcelona (UB), specialising in nanoparticle systems for targeted delivery across the blood–brain barrier (BBB). Experienced in designing and characterising multifunctional nanoparticle and amyloid- β assemblies to study transcytosis at the BBB. Skilled in advanced analytical techniques and developing in vitro BBB models. Passionate about fostering collaboration and skilled communicator while driving the translation of biotechnological advances into therapies for neurodegenerative conditions..

Contacts

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Professional Experience

PhD Researcher | IBEC, University of Barcelona (2022 - Present)

- Developing advanced nanoparticle systems to target the blood-brain barrier.
- Investigating the transport mechanisms of misfolded proteins across the blood-brain barrier.

Erasmus+ Internship | IBEC, Barcelona (6 months)

- Evaluated the modulation of transcytosis-related gene expression via nanoparticle functionalization at the blood-brain barrier.

Master Internship | University of Naples Federico II, Italy (5 months)

- Formulated liposome-based nanoparticles incorporating calcium phosphate or cerium oxide nanoparticles for gene delivery and antioxidant applications.

Bachelor Internship | University of Naples Federico II, Italy (3 months)

- Optimized fluorescent probe encapsulation efficiency in hyaluronic acid-functionalized PLGA nanoparticles.

Education

PhD in Biomedicine, Neuroscience specialization at University of Barcelona (2022 - present)

MSc in Pharmaceutical Biotechnologies at University of Naples Federico II (2019 - 2022)

- Thesis: Advanced nanoparticle systems for nucleic acid delivery
- Graduated with 110 cum laude

BSc in Health Biotechnologies at University of Naples Federico II (2016 - 2019)

- Thesis: Nanoparticle optimization for bioactive molecule encapsulation
- Graduated with 110 cum laude

Conferences

Organiser

- Programme co-ordinator, *Blood–Brain Barrier Barcelona (B4)*, Barcelona, Oct 2025.

Session chair

- Chaired "Blood–Brain Barrier Disorders" session at *Blood–Brain Barrier Barcelona (B4)*, Barcelona, Oct 2024.

Oral presentations

- "Multivalent Nanoparticles as Modulators of the Blood–Brain Barrier: A New Paradigm for Superselective Nanomedicine", *NET-NANO Workshop 2*, Barcelona, June 2025.

Poster Presentation

- On the Amyloid- β transcytosis across the blood-brain barrier, *FEBS Advanced Course, Functional imaging of cellular dynamics*, Amsterdam, 2024.
- On the Amyloid- β transcytosis across the blood-brain barrier, *Blood–Brain Barrier Barcelona (B4)*, Barcelona, 2024.
- On the Amyloid- β transcytosis across the blood-brain barrier, *ICONAN 2024*, Barcelona, 2024.
- On the Amyloid- β transcytosis across the blood-brain barrier, *IBEC symposium*, Barcelona, 2022 - 2023 - 2024.

Awards

- PhD fellowship INPhINIT Incoming 2022 - Fundación "la Caixa"
- FEBS YTF grant, *FEBS Advanced Course, Functional imaging of cellular dynamics*, Amsterdam, 2024.

Character References

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