

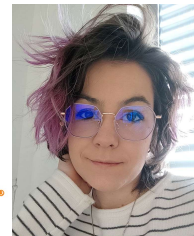
ILARIA OTTONELLI

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ESPERIENZA PROFESSIONALE

Febbraio 2025: Abilitazione Scientifica Nazionale (**ASN**)

Professore II Fascia CHEM-08/a (Tecnologia, socioeconomia e normativa dei medicinali e dei prodotti per il benessere e per la salute)

Ottobre 2023 - presente: **Ricercatore (RUTD-A)**, Te.Far.T.I. / Nanotech Lab, University of Modena and Reggio Emilia
Progetto PNRR CN_3 - National Center for Gene Therapy and Drugs based on RNA Technology - Spoke 1 "Genetic Diseases"

Nov 2022 - Set 2023: **Ricercatore Post-Doc**, Università di Modena e Reggio Emilia

«Investigating Mechanisms and Models Predictive of Accessibility of Therapeutics: development of novel nanomedicines (NMeds) for the delivery of therapeutic molecules to the brain against difficult to treat diseases»

2019 - 2022: PhD in Nanomedicina, Clinical and Experimental Medicine PhD School, Università di Modena e Reggio Emilia

Co-tutored con l'Università di Angers, Francia

Titolo tesi: Advanced Nanotechnologies for the Central Nervous System: Design, Optimization, Application, and Scale-up

FORMAZIONE

2013 - 2018: Laurea Magistrale ciclo unico in Chimica e Tecnologia Farmaceutiche, Università di Modena and Reggio Emilia.
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Mar - Set 2018: Erasmus+ Università di Ulm (Germania), Dipartimento di Anatomia e Patologia Cellulare

PREMI E GRANT

Bando 2025-1-RD Nanobiotech del Joint Research Center - European Commission - CHANGE: CHolesterol Advanced Nanomedicines for targeted GENE Therapy

Travel award per partecipare al CRS Global 2023 Meeting (Las Vegas, USA)

SELEZIONE DI PUBBLICAZIONI RECENTI

- Ottonelli, I.**; et al. Advantages and Challenges of Polymer-Lipid Hybrid Nanoparticles for the Delivery of Biotech Drugs. *Nanomedicine* 2025, doi:10.1080/17435889.2025.2457930.
- Ottonelli, I.**; et al. Strategies for Improved pDNA Loading and Protection Using Cationic and Neutral LNPs with Industrial Scalability Potential Using Microfluidic Technology. *IJN* 2024, 19, 4235-4251, doi:10.2147/IJN.S457302.
- Ottonelli, I.**; et al. Optimization of an Injectable Hydrogel Depot System for the Controlled Release of Retinal-Targeted Hybrid Nanoparticles. *Pharmaceutics* 2023, 15, 25, doi:10.3390/pharmaceutics15010025.
- Ottonelli, I.**; et al. Quantitative Comparison of the Protein Corona of Nanoparticles with Different Matrices. *International Journal of Pharmaceutics*: X 2022, 4, 100136, doi:10.1016/j.ijpx.2022.100136.
- Ottonelli, I.**; et al. Tunneling Nanotubes: A New Target for Nanomedicine? *International Journal of Molecular Sciences* 2022, 23, 2237, doi:10.3390/ijms23042237.
- Ottonelli, I.**; et al. Microfluidic Technology for the Production of Hybrid Nanomedicines. *Pharmaceutics* 2021, 13, 1495, doi: 10.3390/pharmaceutics13091495

PRODOTTI DELLA RICERCA

H-Index: 14 >10 Conference talks
Publications: 28 > 15 poster presentations
Citations: > 450 6 first author publications

INSEGNAMENTO

AA 25/26 *Preformulazione* - CLMCU Chimica e Tecnologia Farmaceutiche

AA 24/25, 25/26 *Nanotecnologie Farmaceutiche* - CLM Bioingegneria per l'Innovazione in Medicina

AA 23/24 *Veicolazione e Direzione dei farmaci (laboratorio)* - CLMCU Chimica e Tecnologia Farmaceutiche

Supervisor di > 10 tesisti (Relatore/Correlatore)

ALTRE ATTIVITA' ISTITUZIONALI

AA 25/26 Membro della Commissione *Orientamento in Ingresso*, CLMCU Chimica e Tecnologia Farmaceutiche

COMPETENZE

Drug Delivery Systems: Polymeric, hybrid, lipidic nano- and micro-particles for delivery of small molecules, peptides, proteins, enzymes, and genetic material (pDNA, mRNA, siRNA).

Nano-Formulation Techniques: nanoprecipitation, single and double emulsion, spray drying, solvent injection, thin layer rehydration, microfluidics.

Spectroscopy: UV-Vis, Fluorescence

Separation Techniques: RP-HPLC, Size Exclusion Chromatography; Gel electrophoresis

Biological Sample Processing Microtome and Cryostat for fixed animal tissues. Floating and on-slide immunohistological staining

Microscopy: Optic, Atomic Force, Electron, Fluorescence, and Confocal Microscope

LINGUE

Madrelingua Italiana, Inglese C1