



Alessandro Anderlini

Nationality: Italian **Date of birth:** 14/04/1999 **Gender:** Male

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Work: Via G. Campi 103, 41125 Modena (Italy)

WORK EXPERIENCE

HIP-TECH (Health Innovative Products and Technologies), NanoTech Lab., UNIMORE – Modena, Italy

Address: Via G. Campi 103, 41125 Modena (Italy)

PhD student

[01/11/2025]

- Innovation in the production and development of biotechnological drugs

NanoTech Lab. - CIDSTEM - Unimore - Università degli studi di Modena e Reggio Emilia – Modena, Italy

Address: Dipartimento Scienze della Vita, Via Campi, 103, 41125 Modena (Italy)

Research fellow (junior) - Nanomedicine

[01/2024 – 31/10/2025]

- Development and optimization of targeted nano drug delivery systems for biotechnological drugs (genetic material, therapeutic proteins and enzymes)
- Microfluidic technique
- Physical-chemical characterization of the developed formulations
- Drafting protocol and reports

NanoTech Lab. - Unimore - Università degli Studi di Modena e Reggio Emilia – Modena, Italy

Address: Dipartimento Scienze della Vita, Via Campi, 103, 41125 Modena (Italy)

Thesis student in nanomedicine and pharmaceutical technologies

[05/06/2023 – 19/12/2023]

- Development of nano and micro-particle formulations, with both classic and innovative techniques, for parenteral administration - Hematologic diseases as target
- Physical-chemical characterization of developed formulations
- Handling and formulation of genetic material (RNA, DNA)
- API preformulative studies

Unimore - Università degli Studi di Modena e Reggio Emilia – Modena, Italy

Address: Dipartimento Scienze della Vita, Via Campi, 103, 41125 Modena (Italy)

University teaching assistant (Organic chemistry)

[09/03/2023 – 29/05/2023]

- Frontal lectures and exercises (30 students)
- Autonomy in preparing and delivering presentation/exercises
- Personalized and individual support

Lloyds Farmacia Allegretti – Castelnuovo Rangone, Italy

Address: Via M. Allegretti, 5, 41051 Castelnuovo Rangone (Italy)

Warehouse worker

[11/04/2023 – 15/05/2023]

- Warehouse management
- Loading and unloading of goods
- Relationship with suppliers
- Checking expired products and returns

 **Lloyds Farmacia Allegretti** – Castelnuovo Rangone , Italy

Address: Via M. Allegretti, 5, 41051 Castelnuovo Rangone (Italy)

Internship

[28/09/2022 – 04/04/2023]

- Drug dispensing
- Evasion of electronic prescriptions
- Advice on over-the-counter medication
- Warehouse work (Including loading goods, reporting any undelivered or damaged products)
- Telemedicine services
- Sell or rental of sanitary products
- CUP service
- Magistral preparations
- Acquiring skills in advising and selling cosmetics and supplements

 **Club Europa '92** – Montale Rangone , Italy

City: Montale Rangone | Country: Italy

Waiter

[08/2018 – 25/12/2023]

- Table service

EDUCATION AND TRAINING

Integrated Master's Degree in Pharmaceutical Chemistry and Technology

Unimore - Università degli Studi di Modena e Reggio Emilia [25/09/2018 – 19/12/2023]

Address: Dipartimento Scienze della Vita, Via Campi, 103 , 41125 Modena (Italy) | **Field(s) of study:** Technological production of pharmaceuticals | **Final grade:** 104/110 | **Thesis:** Nanocarrier evaluation to encapsulate a novel iron chelating small molecule designed for the treatment of hemochromatosis

Core subjects:

- Technological production of pharmaceuticals
- Drug delivery and targeting
- Organic chemistry
- Pharmaceutical Chemistry and Toxicology
- Pharmacology and Pharmacotherapy

Completed Educational Laboratories:

- Fundamentals of Industrial Formulations
- Drug instrumental analysis
- Qualitative and quantitative recognition of substances
- Magistral preparations
- Separation techniques for mixtures (extraction, distillation, TLC, and HPLC)

First Certificate in English

Cambridge University [06/2018]

City: Modena | Country: Italy

High School diploma

ITIS Enrico Fermi [09/2013 – 10/07/2018]

City: Modena | Country: Italy | **Field(s) of study:** Chimica

LANGUAGE SKILLS

Mother tongue(s): Italiano

Other language(s):

English

LISTENING C1 **READING** C1 **WRITING** C1

SPOKEN PRODUCTION C1 **SPOKEN INTERACTION** C1

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

PUBLICATIONS

[2025]

Nanomedicine-based delivery strategies improve hinokitol therapy in iron overload disorders Anderlini A.† ,Sabelli M.† , Corradini E., Tagliavini S., Baraldi C., Ricci A., Ruozi B., Vandelli MA., Buzzetti E., Tosi G., Pietrangelo A., Ottonelli I. Nanomedicine-based delivery strategies improve hinokitol therapy in iron overload disorders Elsevier, International Journal of Pharmaceutics, 2025 (Currently under review)

International Journal of Pharmaceutics (currently under review)

[2025]

Mitochondria-Targeted Nanomedicines as a Versatile Therapeutic Strategy Tagliavini, S.; Filippini, M.; **Anderlini, A.**; Caraffi, R.; Baraldi, C.; Ruozi, B.; Tosi, G.; Ottonelli, I.; Duskey, J.T. "*Mitochondria-Targeted Nanomedicines as a Versatile Therapeutic Strategy*" RSC publishing, Nanoscale, 2025 (Currently under review)

RSC publishing, Nanoscale, 2025 (Currently under review)

[2024]

CHALLENGES OF ENZYME THERAPY: WHY TWO PLAYERS ARE BETTER THAN ONE S. Cuoghi, R. Caraffi, **A. Anderlini**, C. Baraldi, E. Enzo, M. A. Vandelli, G. Tosi, B. Ruozi, J. T. Duskey, I. Ottonelli "*CHALLENGES OF ENZYME THERAPY: WHY TWO PLAYERS ARE BETTER THAN ONE*" WIREs Nanomedicine and Nanobiotechnology, Volume16, Issue4, e1979, <https://doi.org/10.1002/wnan.1979>

WIREs Nanomedicine and Nanobiotechnology, Volume16, Issue4, e1979

CONFERENCES AND SEMINARS

FORMULATION STRATEGIES FOR THE ENCAPSULATION OF HINOKITOL: FROM NANOPARTICLE DESIGN TO IN VITRO ACTIVITY Selected case study INTRECCIO DI SAPERI TRA ACCADEMIA E INDUSTRIA FARMACEUTICA: IL CASO DEI "COMPLEX DRUGS", Milano, November 27-28th, 2024

POSTERS AND TALKS

[2025]

MICROFLUIDIC DEVELOPMENT OF ENZYME REPLACEMENT THERAPY NANOPLATFORM FOR CENTRAL NERVOUS SYSTEM DELIVERY

Anderlini A.; Cuoghi S.; Baldassaro V.A.; Cescatti M.; Calzà L.; Ruozi B.; Tosi G.; Duskey J.T.

12/06/2025, 64° Simposio AFI, Rimini

[2025]

Precision Nanomedicine: Scalable Lipid and Cholesterol-Based Gene Therapy Platforms

Ottonelli I.; **Anderlini A.**; Marzoppini A.; Duskey J.T.; Vandelli M.A.; Tosi G.

NanomedEurope25, 27-30/05/2025, Barcellona, Spain

[2025]

MICROFLUIDIC PRODUCTION OF CHOLESTEROL NANOPARTICLES: INDUSTRIAL APPLICATIONS AND GENE THERAPY

Marzoppini A.; Ottonelli I.; Caraffi R.; **Anderlini A.**; Duskey J.T.; Tosi G.; Ruozi B.; Vandelli M.A.

CRS Italy Chapter Workshop 2025, Bari 15-17 Maggio

[2025]

NANOMEDICINE FOR ENZYME REPLACEMENT THERAPY: BRIDGING THE GAP FROM LAB TO INDUSTRY

Cuoghi S.; Tagliavini S.; **Anderlini A.**; Cescatti M.; Baldassaro V.A.; Calzà L.; Ruozi B.; Tosi G.; Duskey J.T.

CRS Italy Chapter Workshop 2025, Bari 15-17 Maggio

[2024]

MICROFLUIDIC OPTIMIZATION OF LIPID NANOPARTICLES FOR CRISPR/CAS9 DELIVERY TO EX-VIVO STEM CELLS

Anderlini A.; Marzoppini A.; Rigoni P.; Biffi A.; Tosi G.; Ottonelli I.

XXIII Giornata della chimica dell'Emilia Romagna, Modena 19/12/2024

[2024]

NANOPARTICLE ENCAPSULATION OF HINOKITOL: APPROACHES IN FORMULATION AND IN VITRO PERFORMANCE

Anderlini A.; Ottonelli I.; Duskey J.T.; Tosi G.; Sabelli M.; Pietrangelo A.; Ruozi B.

XXIII Giornata della Chimica dell'Emilia Romagna 2024, Modena, December 19th, 2024

[2024]

Nanomedicines for Enzyme Replacement therapy: Progressing to microfluidic formulations

S. Cuoghi, **A. Anderlini**, M. Cescatti, I. Ottonelli, J.T. Duskey, R. Caraffi, F. Rodà, F. Tosi, M.A. Vandelli, G. Tosi, L. Calzà, B. Ruozi

"Nanomedicines for Enzyme Replacement therapy: Progressing to microfluidic formulations"

XXVIII national congress SCI 2024, Milano 26-30/08/2024

[2024]

A MICROFLUIDIC APPROACH TO THE FORMULATION OF CATIONIC AND NEUTRAL LIPID NANOPARTICLES LOADING AND PROTECTING pDNA: TOWARDS LINKING BENCHTOP METHODS AND INDUSTRIAL SCALABILITY FOR THE PRODUCTION OF GENE THERAPEUTICS

Anderlini A., Duskey J.T., Milcovich G., Rodà F., Vandelli M.A., Ottonelli I.

"A MICROFLUIDIC APPROACH TO THE FORMULATION OF CATIONIC AND NEUTRAL LIPID NANOPARTICLES LOADING AND PROTECTING pDNA: TOWARDS LINKING BENCHTOP METHODS AND INDUSTRIAL SCALABILITY FOR THE PRODUCTION OF GENE THERAPEUTICS"

63° SIMPOSIO AFI, Rimini 05-07/06/2024

TERZA MISSIONE

Workshop MORE Pharma – Biotech tra Scuola, Università e mondo del Lavoro: quali prospettive?

17/02/2025, University of Modena and Reggio Emilia, Dept. Of Life Sciences, Via Campi 103, Modena

SUPERVISED STUDENTS

Masters degree

- Supervised 3 student for a masters degree experimental thesis

TECHNICAL SKILLS AND COMPETENCIES

Instrumentation

- DLS and Zeta potential
- Microfluidic technique
- Handling of sensitive biomolecules (CRISPR/Cas9, RNA, DNA, Enzymes)
- Gel electrophoresis (agarose and SDS-PAGE)
- Electronic microscopy (SEM)
- HPLC
- Differential Scanning Calorimetry
- Spray Dryer
- UV-Vis Spectrophotometry
- Freeze dryer
- Optic microscopy
- Rotary evaporator
- pHmeter

SKILLS

Professional knowledge of office packages - (Open Office, MS Office) / Good proficiency in the use of Scientific Data Banks (PubMed, SciFinder, Reaxys, WoS, Scopus) / Proficient user of browser and cloud storage / Use and management of email services / Social Network / Python Language - Basic knowledge

CERTIFICATIONS

[UNIMORE - University of Modena and Reggio Emilia, Via G. Campi 103, 41125, Modena, Italy, 25/11/2024]

Qualification for the practice of the pharmacist profession

SAFETY TRAINING

[2021]

SICURMORE

Module 1 - General training

Module 2 - Specific training low hazard

Module 3 - Specific training medium hazard

Autorizzo il trattamento dei miei dati personali presenti nel CV ai sensi dell'art. 13 d. lgs. 30 giugno 2003 n. 196 - "Codice in materia di protezione dei dati personali" e dell'art. 13 GDPR 679/16 - "Regolamento europeo sulla protezione dei dati personali".

Modena , 23/10/2025



Alessandro Anderlini