



Federica Arienti

Nationality: Italian **Date of birth:** 5 Dec 1992 **Gender:** Female

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EDUCATION AND TRAINING

PhD in Biotechnological, Biocomputational, Pharmaceutical and Pharmacological Sciences

Alma Mater Studiorum - University of Bologna and CNR-ISSMC [1 Nov 2024 – Current]

City: Bologna and Faenza | Country: Italy | Website: www.issmc.cnr.it

- Research Topic: Development and characterization of new 3D bioactive matrices for regenerative medicine
- Title of the proposal: Design and development of stimuli-responsive 3D biomimetic materials to enhance soft tissue regeneration process

Pharmacist Qualification

Alma Mater Studiorum - University of Bologna [Jul 2017]

City: Bologna | Country: Italy | Website: www.unibo.it | Final grade: 293/350

Consisting in a written test, two laboratory tests and an oral one

Master of Science in Pharmacy - Single Cycle Degree

Alma Mater Studiorum - University of Bologna [Oct 2011 – Mar 2017]

City: Rimini | Country: Italy | Final grade: 110/110 cum laude | Thesis: "Multifunctional effects of a hybrid molecule donepezil-curcumin in a vitro model of Alzheimer's disease"

Experimental thesis in Pharmacology - QUVI Research Laboratories, Rimini (Jan - Jul 2016), thesis supervisor: Prof. A. Tarozzi

- Project: collaboration with the Prof. A. Tarozzi's research group (andrea.tarozzi@unibo.it) for the study of multifunctional molecules with antioxidant, anti-inflammatory and neuroprotective activities for the AD therapy, included in an international project "Sciences without frontiers" Italy-Brazil. The project involved the development of hybrid molecules that combine the donepezil pharmacophore, functional in symptom control, and a curcumin pharmacophore with potential antioxidant and neuroprotective effects, as well as the evaluation of their safety and efficacy profile

- Laboratory activities and instrumentation: setup of human neuroblastoma (SH-SY5Y) and human acute monocytic leukemia (THP1) cell cultures on standard substrates to reproduce respectively, neurodegenerative and neuroinflammatory events.

Preparation of the culture medium at 10-5-2% of FBS (with DMEM, Penicillin-Streptomycin and L-glutamine).

SH-SY5Y cells, the most used ones, were grown in monolayers in 75 cm² diameter cell culture flasks in DMEM 10% FBS complete medium, in a humidified atmosphere at 37°C with 5% CO₂.

Use of specific solutions as HBSS and D'PBS saline solutions, EDTA- trypsin for the cells removing ones they reached sub-confluence or confluence and Eosin solution to stain the cells to be counted using the Burkner chamber, before carrying out the experiments and subsequently reaching the desired concentration, stock solution of Tetrazolium salts and MTT working solution etc.

Use of DPPH, a very stable nitrogenous radical, H₂O₂ and OAβ₁₋₄₂, a specific neurotoxin for AD.

Specific in vitro tests:

- Neuronal viability: Tetrazolium salt test (MTT);
- Evaluation of intracellular ROS formation and of direct and indirect antioxidant activities: use of 2,7-dichlorodihydrofluorescein diacetate (H₂DCF-DA);

- Evaluation of intracellular glutathione levels (GSH): use of Monochlorobimane (MBC) probe;
 - Determination of dead cells due to OAB β ₁₋₄₂ activity and toxicity: Propidium Iodide test, Congo red - OAB β ₁₋₄₂ binding test and DHE test;
 - OAB β ₁₋₄₂-induced cytotoxicity in terms of exocytosis and intracellular reduction of formazan: intra- and extra-cellular formazan solubilization test;
 - Evaluation and quantification of the Nrf2 factor activated at nuclear level: TransAM Nrf2 kit inclusive of Elisa test and Bradford Protein assay for the proteins determination, Western Blotting;
 - Other tests for the evaluation of antioxidant activity: DPPH and ABTS test (radical species);
- Use of electronic and infrared microscopes, laminar flow hoods, spectrophotometer, laboratory centrifuge, pH meter and autoclave sterilization, data tests processing on PC

Secondary School Diploma in Agriculture

Agrarian Technical Institute, Cesena (FC), Italy [2006 – 2011]

City: Cesena | Country: Italy | Final grade: 100/100 cum laude

Intensive General English course at ELC School

[Jan 2020 – Feb 2020]

City: Sydney | Country: Australia

This course allowed me to improve listening, vocabulary, speaking, grammar, writing and pronunciation aspects and to acquire fluency especially in the spoken language, being mostly focused on communicative skills; the course consisted of a total of 140 hours, including weekly verification tests, extra English lessons (exam listening, pronunciation, work ready, Australian studies, conversation, presentation), "social activities" and the final level certificate (B2)

B1-B2 and Conversation English courses

[Sep 2019 – Dec 2019]

City: Ravenna, Forlì and Cesena | Country: Italy

Courses included a total of 60 and 48 hours respectively and concerning elements of grammar, lexicon, principles of phonetics and English communicative skills; these included a certificate of participation at the end

Word Advanced Level course

[Nov 2019 – Dec 2019]

City: Rimini | Country: Italy

Advanced document and collaborative editing, paragraph management, organization of a document, linking and embedding between Word and other applications; issuing of a 16-hour certificate of participation

ECM refresher courses for Pharmacists

[Dec 2022]

City: Cesena | Country: Italy

During my professional experience as a pharmacist I participated in various teaching/training courses specific to the profession, including the most recent: "Osteoporosis: the pathology, diagnosis, treatment and follow up" (15 ECM online) and "Covid-19 vaccination campaign: safe administration of the SARS-CoV-2/Covid-19 vaccine (second edition)" (16 ECM online)

General Safety and Health training courses

[Jun 2018 – Apr 2023]

City: Cesena | Country: Italy

Courses of 6 and 8 hours attended during my pharmacist work experience, online and in person

First Aid Course

[Jun 2012]

City: Rimini | Country: Italy

Test carried out during my university studies in pharmacy, the exam was divided into a first theoretical part and a second practical one, score 30/30 for 5,00 CF

NDIS Worker Orientation, Certificate of Completion

[Jan 2024]

City: Sydney | Country: Australia

The online course aimed to educate NDIS (National Disability Insurance Scheme) workers to better support people with disability and to understand the obligations under the NDIS code of conduct

QLD RSA Certificate

[Mar 2021]

City: Brisbane | Country: Australia

Nationally recognised training which aimed to provide the qualification of "Responsible service of alcohol", essential for operating in the hospitality field; the course took place online and was developed in a theoretical and practical part through video recording

Woolworths Group and Sidekicker Health and Safety Induction Certificate of Completion

[May 2022]

City: Perth | Country: Australia

The online course aimed to teach the basics in terms of health and safety before having access to the working platform and the job itself

WA White Card

[Mar 2022]

City: Perth | Country: Australia

Nationally recognised training which aimed to prepare to work safely in the construction industry; the exam included a written, oral and practical part with the issuing of a certificate qualifying the profession

COVID SAFE Work Training for Dining In

[Mar 2021]

City: Brisbane | Country: Australia

Short refresher course in the field of hospitality professions in compliance with in force Covid-19 prevention and safety regulations

WORK EXPERIENCE

PhD in Biotechnological, Biocomputational, Pharmaceutical and Pharmacological Sciences

Alma Mater Studiorum - University of Bologna and CNR-ISSMC [1 Nov 2024 – Current]

City: Bologna and Faenza | Country: Italy

- 2D and scaffold-based 3D cell cultures
- Cell viability assays (Live and Dead, MTT and PrestoBlue assay)
- Use of optical and inverted fluorescence microscopes
- Actin and Dapi staining
- Cell fixation with paraformaldehyde

- Protein extraction and quantification
- Histology: embedding of paraffin samples and histological staining
- Fluorescence analysis with Thermo Scientific Fluoroskan FL fluorometer

Pharmacist

Santa Maria del Monte Pharmacy, Dr. Giaquinto and Bianco [Jun 2024 – Oct 2024]

City: Cesena | Country: Italy

- Taking care of medical prescriptions, medicines delivery and medical advice service
- Offers and deadlines management, exhibition layout
- Loading goods and arrangement of shelves, offers and prices, inventory
- Blood pressure and blood sugar measurement
- Carrying out of Covid-19 nasal swabs
- "CUP" reservations and payments

Housekeeping cleaner

Polish Cleaning [Dec 2023 – Feb 2024]

City: Sydney | Country: Australia

Independent management of the job as a freelancer and ABN holder (Partita IVA)

Pharmacist

San Francesco Pharmacy, Dr. Giulia Santucci [Nov 2022 – Oct 2023]

City: Cesena | Country: Italy

Utility FIFO job

BHP Company [Feb 2022 – Aug 2022]

City: Perth | Country: Australia

Ability to adapt to various types of tasks as needed, in rural areas and fast-paced working environment: detailed cleaning of rooms and common areas of the village and the mining site, use of specific cleaning and sanitization methods following certified policies and procedures, also in the face of the Covid-19 pandemic, teamwork and within established times in order to maintain a safe, tidy and welcoming workplace, independent management of the area reserved for catering, small administrative tasks (all-rounder)

Bakery customer service

James St Bakery [Apr 2021 – Sep 2021]

City: Brisbane | Country: Australia

Skills in fitting into a multi-ethnic and varied environment, being subject to different rules and customs, far from my comfort zone: opening and setting up of the shop, handling customer service (including by telephone) oriented in building long-term relationships with clients, orders and payments management, closing and cleaning of the premises, helping with the management of the shop and customer service improvements, cash handling and credit card processing

Waitress and Runner

Marinara restaurant [Feb 2021 – Mar 2021]

City: Brisbane | Country: Australia

Ability to communicate effectively with people of different ages and cultures, able to adapt to new and challenging situations: setting up and clearing tables, reception clients, taking orders, serving drinks and food, providing and handling customer service, general cleaning

Picker/Packer

Beerenberg and Mountain Blue farms [Sep 2020 – Jan 2021]

City: NSW and SA | Country: Australia

Post-graduate internship and Pharmacist

Fiorita Pharmacy, Dr. Fabrizio Vallone [Oct 2017 – Aug 2019]

City: Cesena | Country: Italy

High degree of organizational skills, fast learner and acquisition of an excellent work ethic

Assistant Pharmacist and Warehouse worker

Fiorita Pharmacy, Dr. Fabrizio Vallone [Aug 2016 – Jun 2017]

City: Cesena | Country: Italy

Undergraduate training: acknowledgment of the sectors dedicated to phytotherapeutic, homeopathic, gluten-free and cosmetic products, warehouse activities as loading goods, orders management, returns and offers, product localization, deadlines control and office tasks, galenic laboratory (galenic preparations, rules of good preparation, RM registration, compilation of worksheets, labeling and pricing).

Consolidation and enhancement of the skills acquired during the undergraduate training, independent work management

COMMUNICATION AND INTERPERSONAL SKILLS

Other work experience I have also worked as au-pair in Sydney (Feb-Jul 2020) and as modern dance teacher for 6 years (Cesena): interpersonal and communication skills with kids and an audience of different ages (entertainment experience with my dance show group), team-leading, problem solving and proactive skills, independent work management within set deadlines and goals to achieve

VOLUNTEERING

[Feb 2024 – Mar 2024] McIntyre Wildlife Shelter, Melbourne

Wildlife volunteer

Rescue and care of native, injured, sick or orphaned wild animals

[Jul 2020 – Aug 2020] Lentil As Anything, Sydney

Volunteer waitress at vegan restaurant

[Nov 2019 – Dec 2019] "MoviMenti" Intercultural Center, Cesena

Volunteer babysitter

Recreational activities and homework help

SUMMER INTERNSHIP

[Jul 2010]

Experimental Farm Martorano 5, Cesena

Hand pollination, fruit quality check, plant care

[Jul 2009]

Mercato Ortofrutticolo, Cesena

Data processing, office duties and customer service

LANGUAGE SKILLS

Mother tongue(s): Italian

Other language(s):

English

LISTENING B2 READING B2 WRITING B2

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

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

OTHER SKILLS

Soft skills

- High degree of organizational skills and fast learner
- Ability to communicate effectively with people of different ages and cultures
- Proactive and able to adapt to new and challenging situations
- Excellent work ethic and problem solving
- Cash handling and credit card processing
- Good digital skills (PowerPoint / Word / Adobe Photoshop / Adobe Lightroom / Final Cut)

CREATIVE WORKS

Hyperrealistic Drawing, Video-making and Photography passionate

Autorizzo il trattamento dei miei dati personali ai sensi del Decreto Legislativo 30 giugno 2003, n. 196 e del GDPR (Regolamento UE 2016/679).

20 Jan 2025

Federica Casulli