CURRICULUM VITAE

Elide Zingale

Via Pietro Verri, 7 95123 Catania (Italia)

(+39) 3387012650

elide.zingale@phd.unict.it

Date of birth: 21/10/1995
Nationality: Italian

Professional Experience:

November 2021-ongoing:

International PhD in Neuroscience – XXXVII cycle (University of Catania)

Title of the project: Development of technological nanoplatforms for the delivery of SIRT-1 activators in ocular degenerative diseases. Supervisor: Prof. Rosario Pignatello.

February 2021-October 2021:

Researcher (research grant) at the pharmaceutical technology research laboratory (DSFS - University of Catania)

Project title: "Design, preparation and characterization of nanotechnological formulations for the ophthalmic release of molecules of industrial interest" (D.R. 3343 of 13/11/2020) as part of the research programme provided for by the agreement for third-party activities with the company Dr. Reddy's Laboratories Ltd.

September 2020-January 2021:

Voluntary research associate at the pharmaceutical technology research laboratory (DSFS - University of Catania)

Design and optimization by Design of Experiment software of lipid and polymeric nanoparticle systems for ophthalmic drug delivery.

November 2019-January 2020:

Trainee at CNR-Neurological Sciences (Catania)

Laboratory experience in cell culture and immunocytochemistry as part of a training project for completion of experimental thesis. In vitro uptake studies of nanoparticle systems on olfactory glial cells (OECs). Skills acquired: Use of light microscope and fluorescence microscope. Ability to work in a sterile environment, under laminar flow hood. Use of centrifuge and biological laboratory equipment. Supervisor: Dr Rosalia Pellitteri.

April 2019-October 2020:

Thesis student (pharmaceutical technology laboratory, University of Catania)

Project: One-year experimental thesis on the preparation and optimization of curcumin nanocrystals using Box Behnken Design. Supervisor: Prof. Teresa Musumeci.

Education and training

3 February 2020:

Master's degree in Pharmacy (LM-13) (University of Catania)

Grade: 110/110 with honours and proposed for "Federfarma Catania" award

Experimental thesis entitled: Design and optimization of curcumin nanocrystals by Box-Behnken Design: characterization and uptake studies on olfactory glial cells.

July 2020:

National qualification as a pharmacist (University of Catania)

January 2020:

English language certification IELTS (BRITISH COUNCIL)

CEFR level: B2

Partecipation in educational events:

20 th Catania International Summer School of Neuroscience "The psychosis constellation: from animal models to resistant schizophrenia"

19 th Catania International Summer School of Neuroscience "RARE DISEASES AND NEUROSCIENCES" 18-22 July 2022 - Catania, Italy

Awards:

"Young Researcher 2023" of Department of Drug and Health Sciences (University of Catania)

Pubblications:

- Zingale, E., Bonaccorso, A., Carbone, C., Musumeci, T., & Pignatello, R. (2022). Drug Nanocrystals: Focus on Brain Delivery from Therapeutic to Diagnostic Applications. *Pharmaceutics*, *14*(4), 691. **https://doi.org/10.3390/pharmaceutics14040691**
- Zingale, E., Romeo, A., Rizzo, S., Cimino, C., Bonaccorso, A., Carbone, C., ... & Pignatello, R. (2022). Fluorescent Nanosystems for Drug Tracking and Theranostics: Recent Applications in the Ocular Field. *Pharmaceutics*, *14*(5), 955. **https://doi.org/10.3390/pharmaceutics14050955**
- Hanieh, P. N., Bonaccorso, A., Zingale, E., Cimarelli, S., Souto, E. B., Rinaldi, F., ... & Carafa, M. (2022). Almond oil O/W nanoemulsions: Potential application for ocular delivery. *Journal of Drug Delivery Science and Technology*, 103424. https://doi.org/10.1016/j.jddst.2022.103424
- Pignatello, R., Corsaro, R., Bonaccorso, A., Zingale, E., Carbone, C., Musumeci, T. (2022) Soluplus® polymeric nanomicelles improve solubility of BCS-class II drugs, *Drug Delivery and Translational Research*, *https://doi.org/10.1007/s13346-022-01182-x*
- Zingale, E., Rizzo, S., Bonaccorso, A., Consoli, V., Vanella, L., Musumeci, T., ... & Pignatello, R. (2022). Optimization of Lipid Nanoparticles by Response Surface Methodology to Improve the Ocular Delivery of Diosmin: Characterization and In-Vitro Anti-Inflammatory Assessment. *Pharmaceutics*, *14*(9), 1961 **https://doi.org/10.3390/pharmaceutics14091961**
- Rizzo, S.; Zingale, E.; Romeo, A.; Lombardo, R.; Pignatello, R. Colon Delivery of Nutraceutical Ingredients by Food-Grade Polymeric Systems: An Overview of Technological Characterization and Biological Evaluation. *Appl. Sci.* **2023**, *13*, 5443. https://doi.org/10.3390/app13095443

- Rizzo Salvatore, Cosentino Giuseppe, Zingale Elide, Bonaccorso Angela, Petralia Salvatore, Monforte Francesca, Condorelli G. Guglielmo, Carbone Claudia*, Pignatello Rosario*, Microscopic Evidence of the Behavior of pH-sensitive Food-grade Polymeric Delivery Systems, Current Nutraceuticals 2023; 4(1): e010223213354 . https://dx.doi.org/10.2174/2665978604666230201144421
- Zingale, E., Bonaccorso, A., D'Amico, A. G., Lombardo, R., D'Agata, V., Rautio, J., & Pignatello, R. (2024). Formulating Resveratrol and Melatonin Self-Nanoemulsifying Drug Delivery Systems (SNEDDS) for Ocular Administration Using Design of Experiments. Pharmaceutics, 16(1), 125.

Conference acts (oral contribution):

Optimization by response surface methodology of self-nanoemulsifying drug delivery systems (SNEDDS) for ocular drug delivery. **2nd Workshop Ophthalmic formulations: Challenges and Advances (July 14, 2023, Pisa) as Invited Speaker.**

Novel nanosystems to improve the ocular bioavailability of sirt-1 agonists in the treatment of degenerative eye diseases. **XV Annual Meeting A.It.U.N. "Crossing the bridge between academia and industry in medicine development & 5-minute projects" 20-21 July 2023, Salerno, (Italy)**

Optimization of diosmin-loaded nanostructured lipid carriers by response surface methodology: characterization and in-vitro anti-inflammatory assessment. **(Online), Re-Eunice, *Le Mardi des Chercheurs*, 6 September 2022, University of Mons (Belgium)**

Optimization of a lipid nanoplatform by Response Surface Methodology to improve the ocular delivery of diosmin: characterization and in-vitro antinflammatory assessment. **Autumn Meeting for Young Chemists in Biomedical Sciences 2022 (AMYC-BIOMED 2022) 17-19 October 2022, Naples (Italy)**

Conference acts (poster contribution):

- **"Lipid nanoparticles and polymeric nanomicelles: which kind of nanosystem is better for diosmin ocular delivery?"** Elide Zingale, Salvatore Rizzo, and Rosario Pignatello; (CRS Italy Local Chapter
  Workshop 2022 | Genova 7 – 9 October)
- **"Self-nanoemulsifying drug delivery systems (SNEDDS): a novel platform to enhance ocular bioavailability of hydrophobic drugs"** Elide Zingale, Angela Bonaccorso, Rosario Pignatello; (DSFS Pharmaday 2022)
- ***"Nanotechnology for ocular drug delivery: from design to characterization"*** Elide Zingale, Cinzia Cimino, Alessia Romeo, Rosamaria Lombardo, Angela Bonaccorso, Debora C. Santonocito, Claudia Carbone, Teresa Musumeci, Carmelo Puglia, Rosario Pignatello; (DSFS Pharmaday 2022)
- ***"Green approach in the development and optimization of colon-targeted delivery systems based on food-grade polymer matrices"*** Salvatore Rizzo, Elide Zingale, Debora Santonocito, Carmelo Puglia, Rosario Pignatello; (DSFS Pharmaday 2022)
- ***"Nutraceuticals: new frontier for drug delivery application"*** Angela Bonaccorso, Cinzia Cimino, Rosamaria Lombardo, Romeo Alessia, Elide Zingale, Salvo Rizzo, Claudia Carbone, Teresa Musumeci, Rosario Pignatello; (DSFS Pharmaday, 2022)
- ***"Design of diosmin-loaded nanostructured lipid carriers by response surface methodology: characterization and in vitro evaluation on arpe-19 cells"*** Zingale E.; Rizzo S.; Bonaccorso A.; Consoli V.; Vanella L., and Pignatello R. (Abstract and Poster per 8th Galenus International Workshop Valencia "The shape of things to come - Drug delivery systems from head to toe")
- ***"Comparison of pure ellagic acid or pomegranate extract release by Eudraguard® colon targeted delivery systems (CTDSs)"*** Rizzo S.; Zingale E.; Pezzino S.; Corsaro R.; Rusciano D.; Pignatello R.

(8th Galenus International Workshop Valencia “The shape of things to come - Drug delivery systems from head to toe”)

- ***“Release study of pH sensitive polymeric colonic drug delivery systems (CDDSs): Evidence of degradation by Scanning Electron Microscope (SEM)”*** S. Rizzo, G. Cosentino, E. Zingale, A. Bonaccorso, F. Monforte, G. G. Condorelli, S. Petralia, R. Pignatello (Poster Congresso SCI 2021)
- ***“Release study of food-grade polymeric colonic drug delivery systems: evidence of pH-dependent behavior by Scanning Electron Microscopy”*** S. Rizzo, G. Cosentino, E. Zingale, A. Bonaccorso, F. Monforte, G. G. Condorelli, S. Petralia, R. Pignatello ISBN 978-88-94952-24-7 (Congresso SCI 2021).

Other contributions:

Nanocrystals Technology Applied to the Treatment and Diagnosis of Neurodegenerative Diseases
(E.Zingale, A.Bonaccorso, R.Pignatello), *Pharma Focus Asia* vol.44, 2022
https://hdl.handle.net/20.500.11769/538319

Entries in Encyclopedia (ISSN 2309-3366):

- Drug Delivery of Nanocrystals https://encyclopedia.pub/entry/21292
- Nanocrystals in Brain Delivery https://encyclopedia.pub/entry/21289
- Fluorescent Nanosystems in Ocular Application https://encyclopedia.pub/entry/22810

Language skills:

-Native language: Italian

Other language	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Interaction	Oral production	
English	B2	B2	B2	B2	B2
IELTS CEFR levels B2					

I authorize the processing of my personal data, contained in this curriculum vitae, in accordance with Article 13 of Legislative Decree 196/2003.