

Elia Bari

PERSONAL DATA

Born in Bellano (LC) in 1992.
Resident in Novara (NO).

CURRICULUM VITAE ET STUDIORUM

Scientific high school diploma obtained in 2011 from Liceo Scientifico “E. Vanoni” in Menaggio (CO). Master’s Degree in Pharmacy, awarded cum laude at the University of Pavia in 2016. License to practice as a pharmacist obtained in 2016 at the University of Pavia. Ph.D. in Chemical and Pharmaceutical Sciences (XXXII cycle) at the University of Pavia, from 2016 to 2019. Research Fellow in the scientific-disciplinary sector CHIM/09 at the Department of Drug Sciences, University of Pavia, from 2019 to 2022. He is currently a fixed-term researcher (RTDB) in the scientific-disciplinary sector CHEM-08/A at the Department of Pharmaceutical Sciences, University of Piemonte Orientale, a position he has held since February 2024, after serving as a fixed-term Researcher (RTDA) in the same Department since February 2022.

His main scientific expertise concerns advanced therapies, the formulation of biological/biotechnological drugs, regenerative medicine, and the development and characterization of nanoparticulate systems, with particular focus on the pharmaceutical use of silk proteins (sericin and fibroin) and the secretome from mesenchymal stem cells and extracellular vesicles.

His teaching expertise includes pharmaceutical technology and pharmaceutical legislation.

UNIVERSITY CAREER

2025-	Representative for the Research Committee of the Department of Pharmaceutical Sciences, and member of the University Scientific Research Committee
2024-	Fixed-term researcher (RTDB), University of Eastern Piedmont
2022-2024	Fixed-term researcher (RTDA), University of Eastern Piedmont
2019-2022	Post-doctoral researcher, University of Pavia
2016-2019	PhD student, University of Pavia

MAIN FIELDS OF INTEREST

1. Advanced Therapy Medicinal Products
2. Micro and nano-drug delivery systems
3. Formulation

CURRENT ISSUES OF RESEARCH

1. Medicinal products based on secretome from mesenchymal stem cells and extracellular vesicles for regenerative medicine and the treatment of rare diseases

The research activity focuses on the development of scalable and Good Manufacturing Practice (GMP)-compliant production processes for the isolation of secretome and extracellular vesicles, and on their formulation into standardized medicinal products intended for various applications in the field of regenerative medicine and the treatment of rare diseases.

2. Multiparticulate (micro and nano) systems and silk-based scaffolds for drug delivery

The research activity involves the use of the two silk proteins, sericin and fibroin, for the formulation of micro and nano-drug delivery systems aimed at the delivery of biologically active substances, as well as for the fabrication of three-dimensional scaffolds for applications in regenerative medicine and drug screening.

FUNDED PROJECTS

Year	Project's details
2023-ONGOING	Principal investigator of the project: "RESALE – Enhancing drug and bioactive food compounds delivery by a carrier-in-carrier platform: sericin nanoparticles embedded in milk-derived extracellular vesicles". UPO research grant for projects coordinated by young researchers. FUNDED CONTRIBUTION: €45.000
2022-2023	Responsible of the operative unit CHIM/09 in the project: "Sviluppo di un modello in vitro tridimensionale basato sull'impiego di substrati biologici applicati allo studio di patologie tumorali in medicina umana e veterinaria" (internal code MINSAL_INVITRO_TUMOR, CUP E85F21003590001). FUNDED CONTRIBUTION: €23.000

TOP FIVE PAPERS

1. **Bari E**, Perteghella S, Di Silvestre D, Sorlini M, Catenacci L, Sorrenti M, Marrubini G, Rossi R, Tripodo G, Mauri P, Marazzi M, Torre ML (2018). Pilot production of mesenchymal stem/stromal freeze-dried secretome for cell-free regenerative nanomedicine: a validated GMP-compliant process. *Cells* 7, 190; DOI: 10.3390/cells7110190.
2. **Bari E**, Di Silvestre D, Mastracci L, Grillo F, Grisoli P, Marrubini G, Nardini M, Mastrogiacomo M, Sorlini M, Rossi R, Torre ML, Mauri P, Sesana G and Perteghella S (2020). GMP-compliant sponge-like dressing containing MSC lyo-secretome: proteomic network of healing in a murine wound model. *European Journal of Pharmaceutics and Biopharmaceutics*, 155, 37-48; DOI: 10.1016/j.ejpb.2020.08.003.
3. **Bari E**, Serra M, Paolillo M, Bernardi E, Tengattini S, Piccinini F, Lanni, C, Sorlini M, Bisbano G, Calleri E, Torre ML, Perteghella S (2021). Silk Fibroin Nanoparticle Functionalization with Arg-Gly-Asp cyclopentapeptide Promotes Active Targeting for Tumor Site-Specific Delivery. *Cancers* 13, 1185; DOI: 10.3390/cancers13051185.

4. **Bari E**, Ferrera F, Altosole T, Perteghella S, Mauri P, Rossi R, Passignani G, Mastracci L, Galati M, Astone GI, Mastrogiacono M, Castagnola P, Fenoglio D, Di Silvestre D, Torre ML, Filaci G (2023). Trojan-horse silk fibroin nanocarriers loaded with a re-call antigen to redirect immunity against cancer. *Journal for ImmunoTherapy of Cancer*, 11:e005916; DOI: 10.1136/jitc-2022-005916.
5. Berni P, Del Bue M, Conti V, Andreoli v, Ramoni R, Angelone M, Squassino GP, **Bari E**, Torre ML, Rinaldi M, Dotti S, Rossi R, Yusuf I, Mauri P, Di Silvestre D, Grolli S (2025). Clinical evaluation of freeze-dried secretome (lyosecretome) for osteoarthritis: a controlled trial in dogs and preliminary safety assessment in horses. *International Journal of Pharmaceutics*, 125864; doi: 10.1016/j.ijpharm.2025.125864.

HONOUR AND AWARDS

1. Best poster presentation, Advanced School in Nanomedicine, Pula, Italy, 25-28 September 2017.
2. Best oral presentation, 1st EVIta symposium, Palermo, Italy, 6-8 November 2019.
3. STEMNET Young Investigator Awards, Second International STEMNET meeting, Brescia, Italy, 18-20 October 2023.