

Pier Francesco Ferrari

Researcher

EDUCATION AND TRAINING

2018

Ph.D. in Chemical, Materials and Process Engineering

Ph.D. Thesis title: "Functionalized biodegradable electrospun scaffolds and nanoengineered particles as innovative tools for vascular medicine".

Department of Civil, Chemical and Environmental Engineering, University of Genoa

PROFESSIONAL HISTORY

2022-ongoing

Researcher

Department of Civil, Chemical and Environmental Engineering, University of Genoa

2018-2019

Post-Doc Research Fellow

Synthesis of calcium carbonate immune nanoparticles for targeted atherosclerosis therapy

Department of Surgical and Integrated Diagnostic Sciences, University of Genoa

2018

Post-Doc Research Fellow

Innovative functionalization of electrospun bioprostheses for vascular surgery

Department of Civil, Chemical and Environmental Engineering, University of Genoa

EXPERIENCE

MAIN SEMINARS

2025 "Bioengineering for peripheral arterial diseases: From nanosystems for vascular drug delivery to bioactive small-diameter vascular prostheses".

Author: Ferrari P.F.

European Symposium on Vascular Biomaterials 2025, Strasbourg (France)

2024 "Engineered polymeric nanoparticles for vascular drug delivery".

Authors: Ferrari P.F., Bufalini C., Campardelli R., Pratesi G., Perego P., Palombo D.

European Society of Cardiovascular Surgery 2024, Istanbul (Turkey)

2024 "New frontiers in biomedical devices for cardiovascular pathology".

Author: Ferrari P.F.

European Society of Cardiovascular Surgery 2024, Istanbul (Turkey)

2024 "Polyphenol-loaded electrospun biomaterials for vascular tissue engineering".

Authors: Ferrari P.F., Ahmadpoor F., Pralits J.O., Palombo D., Perego P.

International Conference on Biomaterials and Biofabrication, Nancy (France)

2024 "Traditional nanosystems as innovative theranostic tools for cardiovascular medicine".

Author: Ferrari P.F.

Global Summit on Nanotechnology & Material Science

2024 "Innovative bioengineered devices for cardiovascular diseases".

Author: Ferrari P.F.

Workshop "Biomeccanica dei Trattamenti Endovascolari", Pavia (Italy)

2023 "Bioengineering-based solutions to peripheral arterial disease: Electrospun biodegradable and bioabsorbable small-diameter vascular prostheses".

Author: Ferrari P.F.

European Society of Cardiovascular Surgery Winter School, Genoa (Italy)

2023 "Food waste valorization: A chemical bioengineering perspective".

Author: Ferrari P.F.

Global Alliance for Rapid Diagnostics (GARD) 2023 Forum: Bridging technologies and market needs

2022 "Bioprotesi vascolari".

Author: Ferrari P.F.

Workshop "La Chirurgia Vascolare tra innovazione e tradizione", Genoa (Italy)

2021 "Quercetin-loaded nanoliposomes for a vascular-intended drug delivery".

Authors: Ferrari P.F., Aliakbarian B., Kahn C.J.F., Perego P., Arab-Tehrany E., Palombo D.

European Society of Cardiovascular Surgery

2019 "Biodegradable engineered small-diameter vascular scaffold: A study in bioreactor".

Author: Ferrari P.F.

European Symposium on Vascular Biomaterials 2019, Strasbourg (France)

2017 "An innovative drug delivery system for atherosclerosis".

Authors: Ferrari P.F., Aliakbarian B., Bagnato P., Palombo D., Perego P.

European Society of Cardiovascular Surgery, Thessaloniki (Greece)

2016 "Engineered CaCO₃ nanoparticles with targeting activity".

Authors: Ferrari P.F., Aliakbarian B., Zattera E., Pastorino L., Palombo D., Perego P.

GRICU 2016: Gli orizzonti 2020 dell'Ingegneria Chimica, Anacapri (Italy)

SCIENTIFIC RESPONSIBILITY FOR RESEARCH PROJECTS ACCEPTED FOR FUNDING ON THE BASIS OF COMPETITIVE CALLS INVOLVING PEER REVIEW

2025 Principal Investigator for the research project entitled "Design, production, characterization, and validation of highly innovative biomaterials for peripheral nerve regeneration".

2024 Principal Investigator for the research project entitled "Applicability of a prototype small-caliber engineered prosthesis in vascular surgery (APPROVA)" (CUP: D33C24000140001).
Fondazione Compagnia di San Paolo

TEACHING OR RESEARCH POSITIONS (FELLOWSHIPS) AT FOREIGN UNIVERSITIES AND RESEARCH INSTITUTES

2024 Grant from the DAAD - Deutscher Akademischer Austauschdienst (German Academic Exchange Service) for the project entitled “A double-layered electroconductive fibrous composite/hydrogel for engineered cardiac tissues” carried out at the Institute of Biomaterials, Friedrich-Alexander-University, Erlangen-Nuremberg, (Germany) and the Laboratory of Experimental Renal and Cardiovascular Research, Institute of Pathology, Friedrich-Alexander-University, Erlangen-Nuremberg (Germany).

EDITORSHIP OR PARTICIPATION IN EDITORIAL BOARDS OF JOURNALS, PUBLISHING SERIES, ENCYCLOPAEDIAS AND TREATISES

2024-ongoing Editor for the international peer-reviewed journal BMC Biomedical Engineering, Springer Nature (<https://bmcbiomedeng.biomedcentral.com/>).

PRIZES AND ACCOLADES FOR SCIENTIFIC ACTIVITY, INCLUDING MEMBERSHIP OF ACADEMIES

2019 Award for the Best Ph.D. Thesis of 2018
Associazione Italiana di Ingegneria Chimica (AIDIC)

2017 Best Oral Presentation Award by the European Society for CardioVascular Surgery at the International Congress of the European Society for CardioVascular Surgery 2017 (Thessaloniki, Greece) for the presentation entitled “Innovative drug delivery system for atherosclerosis”.

PARTICIPATION IN THE CREATION OF NEW BUSINESS ENTITIES (SPIN-OFFS), DEVELOPMENT, USE AND COMMERCIALISATION OF ACADEMIC PATENTS

2023 Co-inventor of patent number WO2023067488 entitled “Polymeric immunonanoparticles for targeted therapy and diagnosis of atherosclerosis.”
Authors: Perego P., Palombo D., Ferrari P.F., Campardelli R., Pratesi G.

2022 Co-inventor of patent number US2022168443A1 entitled “Engineered nanoliposomes for a targeted therapy of atherosclerosis and preparation process thereof”
Authors: Perego P., Palombo D., Ferrari P.F., Campardelli R., Pratesi G.

2022 Co-inventor of patent number US20220249745A1 entitled “Engineered biodegradable vascular bioprostheses and production process thereof”
Authors: Perego P., Palombo D., Ferrari P.F., Aliakbarian B., Pane B., Spinella G.S.G.

2020 Founding member of the spin-off “BEST s.r.l. - Biologically inspired Engineering for Symbiotic Treatments.”