ALL. B – Stefania Petralito

### CODICE CONCORSO 2023PAR003 D.R. n. 2670/2023 del 18.10.2023

#### Stefania Petralito Curriculum Vitae

Place Rome Date 05/11/2023

### **Part I – General Information**

 Full Name
 Stefania Petralito

### **Part II – Education**

Туре	Year	Institution	Notes (Degree, Experience,)
University graduation	1997	Sapienza University of Rome Faculty of Pharmacy	Master Degree in Pharmacy 110/110 cum laude
Post-graduate studies			
Licensure	1997	Sapienza University of Rome Faculty of Pharmacy	Licensed Pharmacist
PhD	2000	Sapienza University of Rome Faculty of Pharmacy	PhD in Pharmaceutical Sciences XIII cycle
Specialty	2003	Sapienza University of Rome Faculty of Pharmacy	Specialization in Hospital Pharmacy 70/70 cum laude

## **Part III – Appointments**

### IIIA – Academic Appointments

Start	End	Institution	Position
2003	2005	Sapienza University of Rome Faculty of Pharmacy Department of Chemistry and Technology of Drugs	Fellow researcher
2005	2008	Sapienza University of Rome Faculty of Pharmacy Department of Chemistry and Technology of Drugs	Researcher
2008	present	Sapienza University of Rome Faculty of Pharmacy Department of Chemistry and Technology of Drugs	Confirmed researcher

### IIIB- Other Accademic Appointments:

-Elective appointments

2018	2023	Sapienza University of Rome Faculty of Pharmacy and Medicine Department of	Member of the Department board (Giunta di Dipartimento)
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		Chemistry and Technology of Drugs	
2020	2023	Sapienza University of Rome Faculty of Pharmacy and Medicine Department of Chemistry and Technology of Drugs	Member of the Faculty board (Giunta di Facoltà)

# -Organizational

2009	2015	Sapienza University of Rome Faculty of Pharmacy and Medicine Department of Chemistry and Technology of Drugs	Member of Quality Commission (CGAQ) of the Master Degree Course in Pharmaceutical Biotechnology
2015	2021	Sapienza University of Rome Faculty of Pharmacy and Medicine Department of Chemistry and Technology of Drugs	Member of Student's Transfer and Course Changing Procedures of the Master Degree Course in Pharmacy
2015	present	Sapienza University of Rome Faculty of Pharmacy and Medicine Department of Chemistry and Technology of Drugs	Member of Library Commission
2021	present	Sapienza University of Rome Faculty of Pharmacy and Medicine Department of Chemistry and Technology of Drugs	Member of Didactic Commission of the Master Degree Course in Pharmacy

# - Member of the examining board

2014	2014	Sapienza University of Rome Faculty of Pharmacy Department of Chemistry and Technology of Drugs	Member of the Examining Board for the research fellow positions (Category A, Type I)
2018	2018	Sapienza University of Rome Faculty of Pharmacy and Medicine Department of Chemistry and Technology of Drugs	Member of the Examining Board for the admission to the School of Specialization in Hospital Pharmacy
2019	2019	Sapienza University of Rome Faculty of Engineering Department of Information Engineering, Electronics and Telecommunications (01/04/2019 prot. No. 605)	Member of the examining board for the selection procedure for the awarding of a work assignment for carrying out the activity: Synthesis, preparation and characterization of magneto-liposomes for subsequent exposure to a magnetic field in the IF range
2019	2019	University of Palermo, Faculty of Pharmacy (DR 2467 29-07-2019)	Member of the examining board for the PhD positions in Molecular and Biomolecular Sciences XXXV cycle
2020	2020	Sapienza University of Rome Faculty of Pharmacy and Medicine	Member of the Examining Board for the Licensure as Pharmacist (DR 1725/2020 -2 sessions)
2021	2021	Sapienza University of Rome Faculty of Pharmacy and Medicine	Member of the Examining Board for the Licensure as Pharmacist (DR 1451/2021- 2 sessions)

2022	2022	Sapienza University of Rome Faculty of Pharmacy and Medicine Department of Chemistry and Technology of Drugs	Member of the examining board for the admission to the School of Specialization in Hospital Pharmacy
2022	2022	University of Calabria, Faculty of Pharmacy (DR no. 244/2022)	Member of the examining board of the final exam of PhD in Translational Medicine XXXIV Cycle
2009	2009	Sapienza University of Rome Faculty of Pharmacy and Medicine Department of Chemistry and Technology of Drugs	Member of the examining board of the final exam of the School of Specialization in Hospital Pharmacy
2019	2019	Sapienza University of Rome Faculty of Pharmacy and Medicine Department of Chemistry and Technology of Drugs	Member of the examining board of the final exam of the School of Specialization in Hospital Pharmacy
2020	2020	Sapienza University of Rome Faculty of Pharmacy and Medicine Department of Chemistry and Technology of Drugs	Member of the examining board of the final exam of the School of Specialization in Hospital Pharmacy
2021	2021	Sapienza University of Rome Faculty of Pharmacy and Medicine Department of Chemistry and Technology of Drugs	Member of the examining board of the final exam of the School of Specialization in Hospital Pharmacy
2023	2023	Sapienza University of Rome Faculty of Pharmacy and Medicine Department of Chemistry and Technology of Drugs	Member of the Examining Board for the research fellow positions (Type B) PI of the research "Optimization of magneto-mechanically triggered release by tuning of magnetoliposome composition
2023	2023	Sapienza University of Rome Faculty of Pharmacy and Medicine Department of Chemistry and Technology of Drugs	Member of the examining board for the admission to the School of Specialization in Hospital Pharmacy
2023	2023	Sapienza University of Rome Faculty of Pharmacy and Medicine Department of Chemistry and Technology of Drugs	Member of the Examining Board for the research fellow positions (Type B) Adozione di misure per l'utilizzo sostenibile dei biocidi - studio pilota in materia di principi attivi che non destano preoccupazione bando AR-B 11/2023
2023	2023	Sapienza University of Rome Faculty of Pharmacy and Medicine Department of Chemistry and Technology of Drugs	Member of the Examining Board for the research fellow positions (Type B) Studio pilota in materia di principi attivi ad azione biocida formulati in nano AR-B 12/2023 studio pilota in materia di principi attivi ad azione biocida formulati in nano

-Professional activities of support and/or consultancy to Ministry of Health

2022	2022	Sapienza University of Rome Faculty of Pharmacy and	President of the examining commission for carrying out the
		Medicine Department of	aptitude tests for the recognition of

		Chemistry and Technology of Drugs	the qualification of Pharmacist obtained abroad Session MAY 2022 MINISTRY OF HEALTH and SAPIENZA
2023	2023	Sapienza University of Rome Faculty of Pharmacy and Medicine Department of Chemistry and Technology of Drugs	Member of the examining commission for carrying out the aptitude tests for the recognition of the qualification of Pharmacist obtained abroad Session MAY 2023 MINISTRY OF HEALTH and SAPIENZA

# IIIC – Other Appointments Start End

otare	Ena		
2018	2020	MIUR-ASN	Appointed Associate Professor in Pharmaceutical Technologies and Legislation – Professore di II fascia 03/D2 CHIM 09)

## IIID - Non Accademic - Professional Appointments

2019	2019	Ordine dei Farmacisti di Roma	President of the selection board for a public competition for the hiring of three AST collaborator pharmacists Municipality of Palombara Sabina Public notice n°01/2019 Prot. N.04 of 01/15/2019
2020	present	Ordine dei Farmacisti di Roma	Membro della Commissione "Cosmetica ed Innovazione" Ordine dei Farmacisti di Roma*

\*L'Ordine dei Farmacisti di Roma ha designato la Dott.ssa Stefania Petralito quale componente della Commissione Cosmetica ed Innovazione coordinata dalla dott.ssa Gelsomina Perri, membro del Consiglio Direttivo dell'Ordine. I lavori della commissione, pubblicati periodicamente sul sito web dell'Ordine dei Farmacisti di Roma, sono mirati alla divulgazione scientifica in accordo ai fini della TERZA MISSIONE.

# **Part IV – Teaching experience**

IVA – Course lecturer of institutional courses related to the topics of the CHIM/09 scientific disciplinary sector

Accademic	Year	Institution	Lecture/Course
2005	2006	04308-BIOTECNOLOGIE FARMACEUTICHE [LS - Ordin. 2003] - 9/S - interfacolta	Pharmaceutical technologies and Industrial Preparation of Pharmaceutical Products
		FARMACIA E MEDICINA	
2006	2007	04308-BIOTECNOLOGIE FARMACEUTICHE [LS - Ordin. 2003] - 9/S - interfacolta	Pharmaceutical technologies and Industrial Preparation of Pharmaceutical Products
		FARMACIA E MEDICINA	
2007	2008	04308-BIOTECNOLOGIE FARMACEUTICHE [LS - Ordin. 2003] - 9/S - interfacolta	Pharmaceutical technologies and Industrial Preparation of Pharmaceutical Products
		FARMACIA E MEDICINA	
2008	2009	04308-BIOTECNOLOGIE FARMACEUTICHE [LS - Ordin. 2003] - 9/S - interfacolta	Pharmaceutical technologies and Industrial Preparation of Pharmaceutical Products
		FARMACIA E MEDICINA	
2009	2010	04308-BIOTECNOLOGIE FARMACEUTICHE [LS - Ordin. 2003] - 9/S - interfacolta	Pharmaceutical technologies and Industrial Preparation of Pharmaceutical Products
		FARMACIA E MEDICINA	
2010	2011	14519-BIOTECNOLOGIE FARMACEUTICHE [LM - Ordin. 2010] - LM-9 - interfacolta	Pharmaceutical technologies, legislation and drug economy Principles of moral philosophy of bioethics and law
		FARMACIA E MEDICINA	
2011	2012	14519-BIOTECNOLOGIE FARMACEUTICHE [LM - Ordin. 2010] - LM-9 - interfacolta	Pharmaceutical technologies, legislation and drug economy Principles of moral philosophy of bioethics and law
		FARMACIA E MEDICINA	
2012	2013	14519-BIOTECNOLOGIE FARMACEUTICHE [LM - Ordin. 2010] - LM-9 - interfacolta	Pharmaceutical technologies, legislation and drug economy Principles of moral philosophy of bioethics and law
		FARMACIA E MEDICINA	
2013	2014	14444-FARMACIA [LMCU - Ordin. 2010] - LM-13 FARMACIA E MEDICINA	Pharmaceutical Technology, Socioeconomics and Legislation I with laboratory
2014	2015	11156-FARMACIA U.E. [LCSU – Ordin. 2006] – 14/S FARMACIA E MEDICINA	Pharmaceutical Technology, Socioeconomics and Legislation I with laboratory
2015	2016	27630-FARMACIA [LMCU – Ordin. 2015] – LM-13 FARMACIA E MEDICINA	Pharmaceutical Technology, Socioeconomics and Legislation I with laboratory

2016	2017	27630-FARMACIA [LMCU – Ordin. 2015] – LM-13 FARMACIA E MEDICINA	Pharmaceutical Technology, Socioeconomics and Legislation I with laboratory
2017	2018	28679-FARMACIA [LMCU – Ordin. 2017] – LM-13 FARMACIA E MEDICINA	Pharmaceutical Technology, Socioeconomics and Legislation I with laboratory
2018	2019	28679-FARMACIA [LMCU – Ordin. 2017] – LM-13 FARMACIA E MEDICINA	Pharmaceutical Technology, Socioeconomics and Legislation I with laboratory
2019	2020	28679-FARMACIA [LMCU - Ordin. 2017] - LM-13 FARMACIA E MEDICINA	Pharmaceutical Technology, Socioeconomics and Legislation I with laboratory
2020	2021	28679-FARMACIA [LMCU - Ordin. 2017] - LM-13 FARMACIA E MEDICINA	Pharmaceutical Technology, Socioeconomics and Legislation I with laboratory
2021	2022	30828-FARMACIA [LMCU - Ordin. 2021] - LM-13 FARMACIA E MEDICINA	Pharmaceutical Technology, Socioeconomics and Legislation I with laboratory
2021	2022	28678-SCIENZE FARMACEUTICHE APPLICATE [L- 270 - Ordin. 2017] - L-29	Technology and Regulation of Medicinal Products and Cosmetic and Health Products
		FARMACIA E MEDICINA	
2022	2023	30828-FARMACIA [LMCU - Ordin. 2021] - LM-13 FARMACIA E MEDICINA	Pharmaceutical Technology, Socioeconomics and Legislation I with laboratory
2022	2023	28678-SCIENZE FARMACEUTICHE APPLICATE [L- 270 - Ordin. 2017] - L-29	Technology and Regulation of Medicinal Products and Cosmetic and Health Products
		FARMACIA E MEDICINA	
2023	2024	30828-FARMACIA [LMCU - Ordin. 2021] - LM-13 FARMACIA E MEDICINA	Pharmaceutical technology and legislation with laboratory magistral and officinal preparations

IVB-Didactic activity carried out in the context of high academic training courses (e.g. Specialization Schools, Masters, Higher Education Courses) including the activity of Tutor (PhD students, postgraduates);

• Didactic activity carried out in the context of high academic training courses: *Specialization Schools, Masters* 

Start	End	Institution	
2015	2016	Sapienza University of Rome Faculty of Pharmacy and Medicine Department of Chemistry and Technology of Drugs	Quality Mechanism Systems School of Hospital Pharmacy (SSFO) Monitoring of prescribing appropriateness School Hospital Pharmacy (SSFO) Control and R&D II Level Master in Industrial Pharmaceutical Methodologies
2016	2017		
2016	2017	Sapienza University of Rome Faculty of Pharmacy and Medicine Department of	Quality Mechanism Systems School of Hospital Pharmacy (SSFO)

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		Chemistry and Technology of Drugs	Monitoring of prescribing appropriateness School Hospital Pharmacy (SSFO) Control and R&D II Level Master in
			Industrial Pharmaceutical Methodologies
2017	2018	Sapienza University of Rome Faculty of Pharmacy and Medicine Department of Chemistry and Technology of Drugs	Quality Mechanism Systems School of Hospital Pharmacy (SSFO) Monitoring of prescribing appropriateness School Hospital
			Pharmacy (SSFO) Control and R&D II Level Master in Industrial Pharmaceutical Methodologies
2018	2019	Sapienza University of Rome Faculty of Pharmacy and	Quality Mechanism Systems School of Hospital Pharmacy (SSFO)
		Medicine Department of Chemistry and Technology of Drugs	Control and R&D II Level Master in Industrial Pharmaceutical Methodologies
			National and supranational regulatory aspects II Level Master in Pharmaceutical preparations for human and veterinary use
2019	2020	Sapienza University of Rome Faculty of Pharmacy and Medicine Department of Chemistry and Technology of Drugs	Quality Mechanism Systems School of Hospital Pharmacy (SSFO) Control and R&D II Level Master in Industrial Pharmaceutical Methodologies
			National and supranational regulatory aspects II Level Master in Pharmaceutical preparations for human and veterinary use
2020	2021	Sapienza University of Rome Faculty of Pharmacy and Medicine Department of	Quality Mechanism Systems School of Hospital Pharmacy (SSFO)
		Chemistry and Technology of Drugs	Control and R&D II Level Master in Industrial Pharmaceutical Methodologies
			National and supranational regulatory aspects II Level Master in Pharmaceutical preparations for human and veterinary use
2021	2022	Sapienza University of Rome Faculty of Pharmacy and	Quality Mechanism Systems School of Hospital Pharmacy (SSFO)
		Medicine Department of Chemistry and Technology of Drugs	Control and R&D II Level Master in Industrial Pharmaceutical Methodologies
			National and supranational regulatory aspects II Level Master in Pharmaceutical preparations for human and veterinary use

2021	2022	Sapienza University of Rome Faculty of Pharmacy and Medicine Department of Physiology and Pharmacology "Vittorio Erspamer"	Semi-solid pharmaceutical forms, II Level Master in Integrative Medicine in Pharmacy
2022	2023	Sapienza University of Rome Faculty of Pharmacy and Medicine Department of Chemistry and Technology of Drugs	Quality Mechanism Systems School of Hospital Pharmacy (SSFO) Control and R&D II Level Master in Industrial Pharmaceutical Methodologies National and supranational regulatory aspects II Level Master in Pharmaceutical preparations for human and veterinary use
2022	2023	Sapienza University of Rome Faculty of Pharmacy and Medicine Department of Physiology and Pharmacology "Vittorio Erspamer"	Semi-solid pharmaceutical forms, II Level Master in Integrative Medicine in Pharmacy

• Didactic activity carried out in the context of high academic training courses: *Higher Education Courses* 

Start E	End	Institution	Course
2018	2019	Sapienza University of Rome Faculty of Pharmacy and Medicine Department of Chemistry and Technology of Drugs	Preparation for the qualification to practice the profession of pharmacist, Higher Education Course
2019	2020	Sapienza University of Rome Faculty of Pharmacy and Medicine Department of Chemistry and Technology of Drugs	Preparation for the qualification to practice the profession of pharmacist, Higher Education Course

### • Activity of tutor: Type B fixed-term researcher supervisor

2023	present	Sapienza University of Rome Faculty of Pharmacy and Medicine Department of Chemistry and Technology of Drugs	RESEARCH GRANT Type B PI of the research "Optimization of magneto-mechanically triggered release by tuning of magnetoliposome composition"
		Diugs	RM1221816C6C39F6

# Activity of tutor: PhD supervisor Start End Institution

Start	End	Institution	
2015	2017	Sapienza University of Rome Faculty of Pharmacy and Medicine PhD course in Pharmaceutical Sciences	PhD tutor of Dr. Romina Spera cycle XXIX Research on Hybrid Liposomes-Based Drug Delivery Systems
2017	2019	Sapienza University of Rome Faculty of Pharmacy and Medicine PhD course in Pharmaceutical Sciences	PhD tutor of Dr. Martina Nardoni cycle XXXI. Investigation on smart triggers and smart lipid vesicles as new tools for drug delivery applications. (Young Scientist Travel Grant Controlled Release Society

			CRS/ Best thesis of the XXXI PhD cycle in Pharmaceutical Sciences" CRS Italy Chapter)
2019	2021	Sapienza University of Rome Faculty of Pharmacy and Medicine PhD course in Pharmaceutical Sciences	PhD tutor of Dr. Jordan Trilli cycle XXXIV Nanocarriers for drug delivery
2023	present	Sapienza University of Rome Faculty of Pharmacy and Medicine PhD course in Pharmaceutical Sciences	PhD tutor of Dr. Barbara Bigi cycle XXXVIII

# • Activity of tutor: supervisor of student of specialization (SSFO)

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2009	2010	Sapienza University of Rome Faculty of Pharmacy and Medicine - SSFO	Yutor of Dr. Rita Raponi (co-tutor Dott.ssa Amelia Cupelli) Il futuro della ricerca non-profit in italia: il clinical trial quality team (C.T.Q.T.) e il monitor interno aziendale (M.I.A.) come promotori della qualità
2019	2020	Sapienza University of Rome Faculty of Pharmacy and Medicine - SSFO	Tutor of Dr. Michela Lombardo (co- tutor Tiziana Corsetti) Dal farmacista ospedaliero al farmacista di dipartimento di oncoematologia. Terapie cellulari e terapie geniche dell'IRCCS ospedale pediatrico Bambino Gesù
2019	2020	Sapienza University of Rome Faculty of Pharmacy and Medicine - SSFO	tutor of Dr. Leonardo Vallesi (Co- tutor Tiziana Corsetti) Il ruolo del framacista nel dipartimento medico di cardiologia e cardiochirurgia pediatrica (DMCCP) dell'ospedale pediatrico Bambino Gesù: esperienza nel reparto di anestesia e rianimazione cardiochirurgica
2019	2020	Sapienza University of Rome Faculty of Pharmacy and Medicine – SSFO	Tutor of Dr. Antonella Sabia II ruolo del farmacista ospedaliero nel dipartimento medico chirurgico del feto-neonato-lattante (DMCFNL) dell'ospedale pediatrico Bambino Gesù
2020	2021	Sapienza University of Rome Faculty of Pharmacy and Medicine – SSFO	Tutor of Dr. Cinzia Teresa Carruba (co.tutor Dott. Francesco Filidoro e Dott.ssa Lucia Perroni) Gestione delle attività dei blocchi operatori: revisione dei processi in ottica lean
2020	2021	Sapienza University of Rome Faculty of Pharmacy and Medicine – SSFO	Tutor of Dr. Federica Tangari (co- tutor Dott. Tiziana Corsetti) Gestione del sistem qualità implementato presso l'IRCCS Opsedale Pediatrico Bambino Gesù)
2021	2022	Sapienza University of Rome Faculty of Pharmacy and Medicine – SSFO	Tutor of Dr. Ester Belvedere (co- tutor Rita Raponi) Implementazione del percorso diagnostico terapeutico assistenziale (pdta) per prevenzione dell'anemia in gravidanza: strategie farmacologiche per il risparmio della risorsa sangue

2021	2022	Sapienza University of Rome Faculty of Pharmacy and Medicine – SSFO	Tutor of Dr. Ludovica Palladino Daratumumab: valutazione della terapia sottocutanea mediante osservazione clinica
2022	2023	Sapienza University of Rome Faculty of Pharmacy and Medicine – SSFO	Tutor of Dr. Chiara Pennacchiotti Terapie HIV Long-acting: l'esperienza di un ospedale della Regione Lazio
2022	2023	Sapienza University of Rome Faculty of Pharmacy and Medicine – SSFO	Tutor of Dr. Sara Salzano Implementazione delle attività di chirurgia robotica nell'ospedale Fatebenefratelli- Gemelli isola Tiberina

### Activity of tutor: Supervisor of visiting students or post-graduate students Institution •

Year

rear		Institution	
2018	2018	Sapienza University of Rome Faculty of Pharmacy and Medicine Department of Chemistry and Technology of Drugs	Supervisor of visiting student for the CONFAP mobility - Italian University Call Project
2023	ad oggi	Sapienza University of Rome Faculty of Pharmacy and Medicine Department of Chemistry and Technology of Drugs	Supervisor of Erasmus Student School of Pharmacy King's College London

Activity of tutor: supervisor of students carrying out their experimental thesis internship in ۲ collaboration with -Pharmaceutical Industry, - Ministry of Health, -Hospitals. Year Institution

2018	2018	Stabilimento produttivo di Latina della Janseen Cilag del gruppo Johnson & Johnson	La serializzazione nell'industria farmaceutica: un esempio applicativo in Janssen Cilag
2018	2018	Farmacia Ospedaliera Ospedale Pediatrico Bambino Gesù	Antibiotico terapia in ospedale: appropriatezza prescrittiva e monitoraggio degli antinfettivi in terapia intensiva cardiochirurgica.

2023	2023	Farmacia Ospedaliera Ospedale Pediatrico Bambino Gesù	Malattie Rare: Gestione all'interno di un Ospedale Pediatrico della Regione Lazio
2023	2023	UOC Farmacia Ospedaliera ASL RM4 Ospedale di Civitavecchia	La manipolazione delle forme farmaceutiche orali solide - indagine sul territorio della Asl Roma 4
2023	ad oggi	Ministero della salute Ufficio 8 Biocidi e cosmetici	Verifica di conformità dei prodotti cosmetici immessi sul mercato ai sensi del Regolamento CE N.1223/2009
2023	ad oggi	Ministero della Salute Direzione Generale dei Dispositivi Medici e del Servizio. Farmaceutico – Ufficio 3 Dispositivi Medici	Aggiornamento del glossario dei livelli della Classificazione Nazionale Dispositivi Medici: proposta di implementazione per la voce L031306

IVB- Didactic activity carried out in the context of ECM training courses (continuing education in medicine)

2011	2011	Sapienza University of Rome Faculty of Pharmacy and Medicine PhD course in Pharmaceutical Sciences Ordine dei Farmacisti di Roma - ASSIFAR servizi Farmalabor e Athena	Galenic for Pharmacists
2016	2016	Ordine dei Farmacisti di Roma – ASL RM5	Pharmacist Update Course

Stefania Petralito is Tutor of over 50 dissertations (research or not)

## Part V - Society memberberships, Awards and Honors

Year		Title
1997	present	Member Associazione Docenti e Ricercatori Italiani di Tecnologie e Legislazione Farmaceutiche (ADRITELF)
2014	present	Member Società Chimica Italiana (SCI) – Divisione di Chimica Farmaceutica/Divisione di Tecnologia Farmaceutica
2014	present	Member Controlled Release Society (CRS) Italian Chapter

## Part VI - Funding Information [grants as PI-principal investigator or I-investigator]

- Grant as I-investigator:

Year	Title	Program	Grant value
2005	Liposomal vesicular systems for the modified release of biologically active substances (project C26F08KTF5)	PROGETTI DI FACOLTA' [I]	
2007	Comparative study of the characteristics and technological properties of equivalent drugs (project C26F074WYS)	PROGETTI DI ATENEO FEDERATO [I]	
2008	Use of cyclodextrins in the pharmaceutical field: study of the rhein/cyclodextrin complex C26F08KTF5	PROGETTI DI ATENEO FEDERATO [I]	
2011	Magnetoliposomes for drug delivery controlled by electromagnetic fields C26A11NR82	PROGETTO DI ATENEO [I]	
2012	Electromagnetic Fields as Controller of Molecular Switches and Reactions C26A12CPA2	PROGETTO DI ATENEO [I]	
2013	Sensitivity of oligonucleotides to MW/RF fields in biological controlled environments C26A14RPFH	PROGETTI DI ATENEO [I]	
2014	Magnetoliposomes for drug delivery controlled by electromagnetic fields C26A11NR82	PROGETTI DI ATENEO [I]	

2015	The electromagnetic field as actuator of biocompatible nanosystems for drug delivery applications	PROGETTI DI ATENEO [I]	
2016	Gel-in-liposomes: a new biomimetic approach to vesicular stabilization. AR116154CDF8292D	RESEARCH TUTOR	
2016	Integrated approaches for the design and development of homogeneous polymeric strips for buccal delivery of drugs RM116154C9884387	PROGETTI DI ATENEO [I]	
2017	Magnetic antennas for possible non- invasive electrochemotherapy treatments mediated by electroporation RM11715C7DCB8473	PROGETTI DI ATENEO [I]	
2018	Non-invasive stimuli-responsive nanocarriers activated by nanosecond pulsed electric field RM118164282B735A	PROGETTI DI ATENEO [I]	
2018	Gel-in-Liposome: innovativi nanocostrutti ibridi per il rilascio di farmaci AR1181642CD409F5	RESEARCH TUTOR	
2019	Preparation and characterization of magnetoliposomes with suitable properties for triggered and controlled drug delivery AR11916B89097BF6	RESEARCH TUTOR	
2019	Liposome vesicles loading magnetic nanoparticles as optimal drug delivery nanosystems controlled by magnetic fields RM11916B835D12D4	PROGETTI DI ATENEO [I]	
2020	Optimization of magnetic field remote- controlled lipid vesicle nanocarriers RM120172B6F1B0D6	PROGETTI DI ATENEO [I]	
2021	Magnetoliposomes and their combination with hydrogels for controlled drug delivery mediated by pulsed electromagnetic fields	PROGETTI DI ATENEO [I]	
2021	Preparation and characterization of hydrogel incorporating magnetoliposomes	RESEARCH TUTOR	

# - Grant as I-investigator for scientific equipments:

2017	LASAFEM (Laser Atomic Force and Electron Microscopy)	SCIENTIFIC EQUIPMENT	
2018	A state-of-the art TEM-based platform for advanced Imaging and Diffraction Analyses - TEMIDA	SCIENTIFIC EQUIPMENT	
2021	Italian Centre for Native Mass Spectrometry - INCENTIVE MS	SCIENTIFIC EQUIPMENT	

#### - Grant as PI-principal Investigator

2022	Optimization of magneto-mechanically triggered release by tuning of magnetoliposome composition	PROGETTI DI ATENEO [PI]	+ RESEARCH GRANT
2023	Adozione di misure per l'utilizzo sostenibile di biocidi – studio pilota in materia di principi attivi che non destano preoccupazione.	Accordo di collaborazione Ministero della Salute Ufficio 7 Biocidi e Cosmetici Codice CUP B83C2300238000 inizio attività a partire dal 1 ottobre 2023.	+ RESEARCH GRANT

### Part VII – Research Activities

Keywords	Bı
Liposomes	
Hybrid drug delivery systems	Ł
Stimuli responsive nano-systems	
Nanoemulsions	
	1

rief Description The research activity of the Laboratory of Bio-Inspired Devices for Technology is focused on the development of new polymer- and/or lipid-based systems for biomedical or pharmaceutical applications. The main research lines are: 1) Synthesis and characterization of novel biopolymers and matrices for application as modified drug delivery systems or as scaffold for tissue engineering; 2) Synthesis and characterization of biopolymers to employ in three-dimensional (3D) bioprinting; 3) Design and development of polymeric thin films for drug delivery; 4) Design and development of hybrid drug delivery systems, such as Gel-in Liposomes (GiL) systems, innovative liposomes with a gelled core; 5) Design and development of stimuli responsive nano-systems for "on demand" drug release. In the last decade I have consolidated my collaboration in the activities of the LBDT (Lab of Bio-Inspired Devices for Technology) research group. My research activity focuses on the preparation and characterization of hybrid phospholipid vesicles of the Gel-in-Liposome (GiL) type - i.e. liposomes with a gelled inner core and high Tm liposomes for the on-demand release of a drug under the action of electrical -nanosecond pulsed electric fields- and magnetic -pulsed or alternating magnetic fields- stimuli. This research activity makes use of national and international collaborations.6) Design and development of lipid-based nanoemulsions.

# **Part VIII – Summary of Scientific Achievements** VIII A- Scientific Achievements

Product type End	Number	Data Base	Start	
Papers [international]	49	Scopus	1999	2023
Papers [national]	-	-		
Books [scientific]	4	Patrizia Paolicelli, <b>Stefania PETRALITO</b> , Jordan Trilli, Laura Di Muzio, Stefania Garzoli, Maria Antonietta Casadei ; Encapsulation of Essential Oils within Lipid-Based Formulations for Enhanced Antimicrobial Activity, Terpenes Medicinal Chemistry Lessons From Nature (2023) 2: 94https://doi.org/10.2174/9789815123647123020006 Bentham Science Publisher Online ISSN 2972-340X	2003	2023
		<b>PETRALITO, Stefania</b> , Iacopo Zanardi, MEMOLI, Adriana, ANNESINI, Maria Cristina, Vincenzo Millucci, Valter Travagli Apparent solubility and dissolution profile at non-sink conditions as quality improvement tools. In: Purusotam Basnet editor. Promising Pharmaceuticals. (2012) p. 83-100, InTech, ISBN: 9789535106319, doi: 10.5772/37656		
		ANNESINI, Maria Cristina, MEMOLI, Adriana, <b>PETRALITO,</b> <b>Stefania</b> , ALHAIQUE, Franco Modulazione Del Rilascio di Farmaci da Liposomi TERMOSENSIBILI (2004) In: Manlio Tito. Nuove frontiere di applicazione dell'ingegneria chimica. vol. 2, p. 173-176, Cues, ISBN: 8887030804		
		ANNESINI, Maria Cristina, MEMOLI, Adriana, <b>PETRALITO</b> , <b>Stefania</b> . Liposome-Surfactant Interactions At Sublytic Surfactant Concentration In: PANDALAI S.J. Recent Research And Development In Biotechnology And Bioengineering (2003) vol. 5, p. 29-46, TRIVANDRUM: Research Signpost, ISBN: 9788127100117		

Didactic book	2	Memoli, Adriana; <b>Petralito</b> , <b>Stefania</b> (2005), Gel in cosmetica Manuale di Scienze e Tecnologie Cosmetologiche Maurizio Giuliani e Ferdinando Di Iorio ARACNE Editrice S.r.l. Roma pp. 359-365 (2005) ISBN 9788854801318	2005 2005
		F. Alhaique, C. Marianecci, E. Santucci, <b>S. Petralito</b> , A. Memoli, L. Di Marzio, M. Carafa "Veicoli cosmetici" in Manuale di Scienze e Tecnologie Cosmetologiche Maurizio Giuliani e Ferdinando Di Iorio ARACNE Editrice S.r.l. Roma pp. 345-384 (2005) ISBN 9788854801318	

TOTAL Impact factor	172.1
Average Impact factor	172.1/49=3.5
Total Citations	966 (scopus)
Average Citations per Product	966/49=19.7
Hirsch (H) index 2018-2023	20 (scopus)
Normalized H index*	0.83

\*H index divided by the academic seniority.

The impact factor and the average "impact factor" per publication were calculated in relation to the year of publication

VIII B- Scientific Achievements within the time frame of the selectable publications (2018-2023)

Papers last 5 years	30	Scopus	2018	2023
[international]				
Papers [national]	-	-		
Books [scientific]	1	Patrizia Paolicelli, <b>Stefania PETRALITO</b> , Jordan Trilli, Laura Di Muzio, Stefania Garzoli, Maria Antonietta Casadei ; Encapsulation of Essential Oils within Lipid-Based Formulations for Enhanced Antimicrobial Activity, Terpenes Medicinal Chemistry Lessons From Nature (2023) 2: 94https://doi.org/10.2174/9789815123647123020006 Bentham Science Publisher Online ISSN 2972-340X	2003	2023
Didactic book	-	-	-	-

Impact factor 2018-2023	136.3	
Average Impact factor 2018-2023	136.3/30=4.5	
Citations 2018-2023	818	
Average Citations per Product	818/30=27.3	
Hirsch (H) index 2018-2023	11 (scopus)	
Normalized H index*	2.2	

\*H index divided by 5 years.

The "impact factor" 2018-2023 and the average "impact factor" per publication 2018-2023 were calculated in relation to the year of publication

#### Part IX– Selected Publications (Journal citation reports, 2023) and citations (Scopus)

List of the publications selected for the evaluation. For each publication report title, authors, reference data, journal IF (if applicable), citations, press/media release (if any).

- Changes in hydration of liposome membranes exposed to nanosecond electric pulses detected by widefield Coherent anti-Stokes Raman microspectroscopy Merla C, Nardoni M, Scherman M, Petralito S, Caramazza L, Apollonio F, Liberti M, Paolicelli P, Attal-Tretout B, Mir LM., Bioelectrochemistry, 2022, 147, 108218 Journal current IF 5.76 DOI: 10.1016/j.bioelechem.2022.108218 cit.0
- 2) The impact of bilayer rigidity on the release from magnetoliposomes vesicles controlled by PEMFs Trilli J, Caramazza L, Paolicelli P, Casadei MA, Liberti M, Apollonio F, Petralito S\*. Pharmaceutics, 2021, 13(10), 1712 Journal current IF 5.4 DOI: 10.3390/pharmaceutics13101712 cit.5
- 3) Gelation of the internal core of liposomes as a strategy for stabilization and modified drug delivery I. Physico-chemistry study **Petralito S\***, Paolicelli P, Nardoni M, Trilli J, Di Muzio L, Cesa S, Relucenti M, Matassa R, Vitalone A, Adrover A, Casadei MA. International Journal of Pharmaceutics, 2020, 30;585:119467 Journal current IF 5.8 DOI: 10.1016/j.ijpharm.2020.119467 cit. 7
- 4) Gelation of the internal core of liposomes as a strategy for stabilization and modified drug delivery II. Theoretical analysis and modelling of in-vitro release experiments Petralito S\*, Paolicelli P, Nardoni M, Tedesco A, Trilli J, Di Muzio L, Cesa S, Casadei MA, Adrover A. International journal of Pharmaceutics, 2020, 30;585:119471 Journal IF 5.8 DOI: 10.1016/j.ijpharm.2020.119471 cit.3
- 5) Proof-of-Concept of Electrical Activation of Liposome Nanocarriers: From Dry to Wet Experiments Caramazza L, Nardoni M, De Angelis A, Paolicelli P, Liberti M, Apollonio, F., Petralito, S\*. Frontiers in Bioengineering and Biotechnology, 2020, 8, 819 Journal current IF 5.7 DOI: 10.3389/fbioe.2020.00819 cit.11
- 6) Enhanced loading efficiency and mucoadhesion properties of gellan gum thin films by complexation with hydroxypropyl-β-cyclodextrin Adrover A, Di Muzio L, Trilli J, Brandelli C, Paolicelli P, Petralito, S., Casadei, M.A. Pharmaceutics, 2020, 12, 819 Journal current IF 5.4 DOI: 10.3390/pharmaceutics12090819 cit. 9
- 7) Chemical investigation and screening of anti-proliferative activity on human cell lines of pure and nano-formulated Lavandin essential oil Ovidi E, Masci VL, Taddei AR, Paolicelli P, Petralito S, Trilli J, Mastrogiovanni F, Tiezzi A, Casadei MA, Giacomello P, Garzoli S. Pharmaceuticals, 2020, 13, 352 Journal current IF 4.6 (IF 2020 5,863) DOI: 10.3390/ph13110352 cit.10
- 8) Lavandula x intermedia essential oil and hydrolate: Evaluation of chemical composition and antibacterial activity before and after formulation in nanoemulsion Garzoli S, Petralito S\*, Ovidi E, Turchetti G, Laghezza Masci V, Tiezzi A, Trilli ., Cesa S, Casadei M. A, Giacomello P, Paolicelli P, Industrial Crops and Products, 2020, 145,112068 Journal current IF 5.9 DOI: 10.1016/j.indcrop.2019.112068 cit. 37

- 9) A Versatile Magnetic Exposure System for In-Vitro, Ex-Vivo, and In-Vivo Experiments Finalized to Therapeutic Applications in the if Range. Della Valle E, Liberti M, Camera F, Paffi A, Petralito S, Roncacè V, Burattini C, Aicardi G, and Apollonio F, IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology, 2019, 3, 8579242 Journal current IF 3.2 DOI: 10.1109/JERM.2018.2887077 cit. 2
- 10) SPC liposomes as possible delivery systems for improving bioavailability of the natural sesquiterpene β-caryophyllene: Lamellarity and drug-loading as key features for a rational drug delivery design Di Sotto A, Paolicelli P, Nardoni M, Abete L, Garzoli S, Di Giacomo S, Mazzanti G, Casadei MA, Petralito S\* Pharmaceutics, 2018, 10, 274 Journal current IF 5.4 DOI: 10.3390/pharmaceutics10040274 cit. 29
- 11) Can pulsed electromagnetic fields trigger on-demand drug release from high-Tm magnetoliposomes? Nardoni M, Della Valle E, Liberti M, Relucenti M, Casadei MA, Paolicelli P, Apollonio F, Petralito\*
   S. Nanomaterials, 2018, 8, 196 Journal current IF 5.3 DOI: 10.3390/nano8040196 cit.22
- 12) Effect of glycerol on the physical and mechanical properties of thin gellan gum films for oral drug delivery Paolicelli P, **Petralito S**, Varani G, Nardoni M, Pacelli S, Di Muzio L, Tirillò J, Bartuli C, Cesa S, Casadei MA, Adrover A International Journal of Pharmaceutics, 2018, 547, 234 **Journal** current IF 5.8
  POL: 10.1016/j.j.j.pat.2010.05.046 arit. 44

DOI: 10.1016/j.ijpharm.2018.05.046 cit.44

#### **Part X: Other scientific achievements**

XA: National and International Collaborations

- Prof. Francesca Apollonio Dipartimento di Ingegneria dell'Informazione Elettronica e delle Telecomunicazioni, Sapienza Università di Roma,
- Prof. Michela Liberti Dipartimento di Ingegneria dell'Informazione Elettronica e delle Telecomunicazioni, Sapienza Università di Roma,
- Prof. Alessandra Adrover Dipartimento di Ingegneria Chimica Materiali Ambiente, Sapienza Università di Roma,
- Dott. Alberto Vitale Università Cattolica del Sacro Cuore,
- Dott.ssa Stefania Garzoli Dipartimento di Chimica e Tecnologie del Farmaco Sapienza Università di Roma,
- Dott.ssa Antonella Di Sotto Dipartimento di Fisiologia e Farmacologia "Vittorio Erspamer" Sapienza Università di Roma,
- Prof.ssa Annabella Vitalone Dipartimento di Fisiologia e Farmacologia "Vittorio Erspamer" Sapienza Università di Roma,
- Prof.ssa Stefania Cesa Dipartimento di Chimica e Tecnologie del Farmaco, Sapienza Università di Roma,
- Prof. Simone Carradori Dipartimento di Farmacia Università degli Studi "G. d'Annunzio" di Chieti-Pescara,
- Dr. Caterina Université Paris-Saclay, Institut Gustave Roussy, CNRS, Metabolic and Systemic Aspects of Oncogenesis (METSY), 94805 Villejuif, France. Divisione di Tecnologie e Metodologie per la Salvaguardia della Salute Laboratorio Tecnologie Biomediche ENEA,
- Dr Lluis Mir Laboratory for vectorology in anticancer therapy CNRS Universite Paris-Sud, Gustave Roussy,
- Dr. Settimio Pacelli, UTSA University of Texas at San Antonio,
- Prof. Ingunn Tho Department of Pharmacy, University of Oslo, 0316 Oslo, Norway,
- Dott.ssa Tiziana Corsetti Farmacia Ospedaliera dell'ospedale pediatrico Bambino Gesù di Roma IRCCS,
- Stabilimento produttivo di Latina della Janseen Cilag del gruppo Johnson & Johnson
- Ministero della Salute: Ufficio Biocidi e Cosmetici

# -XB: Member of the Organizing Committee

2019	2019	Sapienza University of Rome Faculty of Pharmacy and Medicine	Member of the Organizing Committee of the XVI National Rheology Conference of the Italian Association of Rheology (SIR) held in Rome from 18-21 June 2019
2022	2022	Sapienza University of Rome Faculty of Pharmacy and Medicine	Member of the Organizing Committee of the XXI Advanced Doctoral School in Pharmaceutical Technology "Therapeutic strategies for vascular pathologies: the role of pharmaceutical technology" Rome Sapienza 5-7 September
2022	2022	Sapienza University of Rome Faculty of Pharmacy and Medicine	Member of the Committee Organization of the III Congress of the Division of Pharmaceutical Technology. "Pharmaceutical Technology: teaching, research and role in society" Rome Sapienza 7-8 September
2022	2022	Sapienza University of Rome Faculty of Pharmacy and Medicine	Member of the Committee Organization of the Workshop 2022 "Novel frontiers in nanocarriers preparation and characterization" Rome Sapienza 7 June

# -XC: Speaker at National or International Congresses

2011	2011	PharmSciFair Pharmaceutical Science for the future of medicines organized by the European Federation for Pharmaceutical Science (EUFEPS) Praga, 11-17 June	Is the "non-sink condition" useful to amplify any differences in tablet dissolution profile? Petralito, Stefania; I., Zanardi; Memoli, Adriana; Annesini, Maria Cristina; Travagli, Valter
2020	2020	21st International Conference and Exhibition on Pharmaceutics & Novel Drug Delivery Systems, Rome 11-12 March	Non thermal electromagnetic fields to trigger on-demand drug release from Hight- Tm Magnetoliposomes Stefania Petralito, Patrizia Paolicelli, Maria Antonietta Casadei, Jordan Trilli, Laura di Muzio, Laura Caramazza, Micaela Liberti and Francesca Apollonio
2021	2021	XXVII Congresso Nazionale della Società Chimica Italiana SCI 2021 Virtual-Meeting 14-23 September	Remote magneto-mechanical actuaction of magnetoliposomes by alternating or pulsed magnetic fields Stefania Petralito, Patrizia Paolicelli, Maria Antonietta Casadei, Jordan Trilli, Laura di Muzio, Laura Caramazza, Micaela Liberti and Francesca Apollonio

-XD: Editorial Collaboration

- Editor of the Special issue of Pharmaceutics (ISSN 1999-4923) "Polymeric Thin Films as an Emerging Formulation Approach for Biomedical and Pharmaceutical Applications" Section "Pharmaceutical Technology, Manufacturing and Devices" 2021
- Guest co-editor of the special issue of Molecule: "Understanding the Impact of Reactive Coatings to Create Multi-Functional Surfaces in Polymeric Scaffolds" 2021

-XE: Peer reviewer for international Journal

Referee for International Journals Focused on Nanotechnology and Drug Delivery

- 1. COLLOIDS AND SURFACES B, BIOINTERFACES
- 2. INTERNATIONAL JOURNAL OF PHARMACEUTICS
- 3. PHARMACEUTICS
- 4. FRONTIERS IN BIOENGINEERING AND BIOTECHNOLOGY

Roma, 05-11- 2023

Firma

Stefania Petralito

Sto. Jon. Petalito