Decreto Rettore Università di Roma "La Sapienza" n. 124/2020 del 14.01.2020

IOLANDA FRANCOLINI
Curriculum Vitae

Roma
30/gennaio/2020

Part I – General Information

Full Name	Iolanda Francolini
Citizenship	Italiana
E-mail	iolanda.francolini@uniroma1.it
Spoken Languages	Italiano, Inglese

Part II – Education

Type	Year	Institution	Notes (Degree, Experience,…)
Degree Industrial Chemistry	2000	Sapienza University of Rome	Full Marks (110/110 e lode)
Qualification for Chemistry Profession	2000	Sapienza University of Rome	Obtained on November 2000, marks 76/100
PhD in Industrial Chemical Processes	2005	Sapienza University of Rome	Cycle XVII, obtained on 16/02/2005, defending a thesis entitled "Polymers with antimicrobial properties: synthesis, characterization and biological evaluation
Pre-doctorate training	2001	Italian Association of Macromolecules (AIM)	First European Polymer Federation School, XXIII "Mario Farina", School topic: "Training in Elastomers and Rubber Materials", Brescia, June 4-8, 2001
Pre-doctorate training	2002	Turin University, Biotechnology Foundation	National School of Nuclear Magnetic Resonance, Turin, 2-6 September 2002
Pre-doctorate training	2002	Fondazione Iniziative Zooprofilattiche e Zootecniche, Brescia, Italy	Practical/theoretical training course: "Techniques of preparation of cell cultures in vitro", Brescia, 4-6 March 2002
Pre-doctorate training	2002	Fondazione Iniziative Zooprofilattiche e Zootecniche, Brescia, Italy	Advanced Practical/theoretical training course: "Application of cell cultures in vitro", Brescia, 11-13 November 2002

Part III – Appointments

Start	End	Institution	Position
19/03/2001	18/12/2001	Italian Institute of Health (ISS), Rome, Italy	Holder of a professional collaboration research contract, at the Department of Ultrastructures, entitled: "Ultrastructural analysis of drug-releasing polymers".
01/03/2003	31/12/2003	Center for Biofilm Engineering (CBE), Montana State University, Montana, USA	*Visiting Scientist* at the CBE, laboratory of Prof. Paul Stoodley. The research was focus on: "Development of on-demand drug releasing hydrogels".
01/09/2010	01/09/2011	IRCSS - Santa Lucia Foundation, Rome, Italy	*Visiting Scientist* at the "Microbial Biofilm Laboratory". The research was focus on: "Application of Field Emission Scanning Electron Microscopy (FESEM) and Confocal Microscopy for morphological characterization of microbial biofilm adherent to polymeric surfaces".
01/01/2004	01/01/2007	Sapienza University of Rome, Dept of Chemistry	Ricercatore Universitario non confermato, SSD CHIM/04
01/01/2007	Current	Sapienza University of Rome, Dept of Chemistry	Ricercatore Universitario Confermato, SSD CHIM/04
31/03/2017	31/03/2023	MIUR	Qualified for the role "Professore II fascia", SC 03/C2, SSD CHIM/04 "Chimica Industriale".
25/10/2018	25/10/2024	MIUR	Qualified for the role "Professore I fascia", SC 03/B2, SSD CHIM/07 "Fondamenti Chimici delle Tecnologie"

Part IV – Teaching experience

Part IV.A – Courses

A.A.	Institution	Lecture/Course
2005/06 2006/07 2007/08 2008/09 2009/10	Sapienza University of Rome	*Lecturer* of the course: "Laboratorio di Chimica delle Macromolecole" (8 CFU), SSD CHIM/05, Bachelor degree in Industrial Chemistry, Department of Chemistry.
2005/06 2006/07 2007/08 2008/09 2009/10	Sapienza University of Rome	*Lecturer* of the course "Scienza e Tecnologia dei Materiali" (2 CFU, 1 modulo), SSD ING/IND 22, Bachelor degree in Industrial Chemistry, Department of Chemistry.

2010/11 2011/12 2012/13 2013/14 2014/15 2015/16 2016/17 2017/18 2018/19 2019/20	Sapienza University of Rome	*Lecturer* of the course: "Scienza e Tecnologia dei Materiali Polimerici" (9 CFU), SSD CHIM/04, Master Degree in Industrial Chemistry, Department of Chemistry

Part IV.B – Other teaching activities

Start	End	Institution	Description
2005	Current	Sapienza University of Rome	*Tutor* of 10 Master Thesis and 27 Bachelor Thesis
2011	Current	Sapienza University of Rome	*Member of Commission of Exames* of the following courses: "Chimica Industriale", "Fondamenti di Scienza delle macromolecole Science", "Macromolecule" of the Bachelor and Master degrees in Industrial Chemistry.
2019	2019	Università degli studi di Camerino	*Lecturer* (8 hours): "Biomaterials for medical applications" at the Specialization School in Animal health, breeding and livestock production, Matelica (Ma) – March/April 2019.

Part IV.B – Activities in PhD courses

2006 - current	*Member of the PhD board* of the PhD School in "Chemical Sciences" of the Sapienza University of Rome, Italy
2006	*Member for the Commission* for the admission to the PhD in Chemical Sciences Cycle XXXII, Sapienza University of Rome

Part V - Organization Activities and Other Institutional Roles

Period	Role
2010 - current	*Member of Commission* of "Pratiche Studenti" for the Didactic area of Industrial Chemistry, Department of Chemistry, Sapienza University of Rome, Italy
2010 - 2015	*Member of Commission* of "Qualità" for of the degrees in Industrial Chemistry, Department of Chemistry, Sapienza University of Rome, Italy
A.A. 2013/14 A.A. 2015/16 A.A. 2016/17	*Reference Professor* of the Master Degree in Industrial Chemistry (LM-71), Department of Chemistry, Sapienza University of Rome, Italy
2016-2018	*Member of Commission* of "Quality assurance and management (Commissione di

	Gestione dell'Assicurazione della Qualità)" of the degrees in Industrial Chemistry Chemistry Department, Sapienza University of Rome, Italy
A.A. 2017/2018	*Tutor Professor* of the Master degree in Industrial Chemistry (LM-71), Department of Chemistry, Sapienza University of Rome, Italy
2018 - current	*Reference Professor* for "Orientamento in Ingresso" Master degree in Industrial Chemistry (LM-71), Department of Chemistry, Sapienza University of Rome, Italy.
2018 - current	*President of Commission* of "Quality assurance and management (Commissione di Gestione dell'Assicurazione della Qualità)" of the degrees in Industrial Chemistry Chemistry Department, Sapienza University of Rome, Italy
2019 - current	*Member of Commission* "Ricerca e Terza Missione" Department of Chemistry, Sapienza University of Rome, Italy

Part VI - Society memberberships, Awards and Honors

Period	**Description**
2003	*Travel Award* for best contribution at the American Society for Microbiology (ASM) Conference "Biofilms 2003", November 1-6, 2003, Victoria, British Columbia, Canada.
2012 - Current	*Member* of *"*Centro di Ricerca per le nanotecnologie applicate all'Ingegneria" (CNIS) Sapienza
2015 - current	*Member* of the "Consorzio Interuniversitario Nazionale per la Scienza e Tecnologia dei Materiali" (INSTM)
2016	*Award* as Worthy Oral Presentation at the 6th Clinical Microbiology Conference, 20-22/10/2016, Rome.
2017	*Winner "*Fondo per il finanziamento delle attività base di ricerca (FFABR)", secondo il comma 295 della Legge di Bilancio 2017 (Legge 232/2016), assigned by the Italian Ministry of University Education and Research (MIUR)
2017	*Attribution* by Sapienza of the"Fondo per la premialità art. 9 co.1 L 240/10"
2018	*Reviewer Recognition* by "International Journal of Biological Macromolecules" (I.F. = 3.909) for "Outstanding contributions in reviewing", May 2018.
2018	*Reviewer Recognition* by "Colloids and Surface B: Biointerfaces" (I.F. = 3.997) for "Outstanding contributions in reviewing", September 2018.
2018	*Attribution* by Sapienza of "Fondo per la premialità art. 9 co.1 L 240/10"
2020	*Travel Award* by MDPI publisher for supporting the editorial activity in the Journal "International Journal of Molecular Science", assigned in January 2020

Part VII – Conference roles

Part VII.A – Scientific committee and chairman activity

2019	*Member of the Scientific Commitee* of the VIII Conference "Young Researchers" 2019, Department of Chemistry, Sapienza University of Rome, Italy (25-26/06/2019).
2018	*Member of the Scientific Commitee* of the "International Conference on Microbiology & Infectious Diseases", Rome 23- 25/07/2018.

2014	*Member of the Organizing Commitee* of the International Meeting e "Biofilm-based healthcare-associated infections: from microbiology to clinics", Rome, 9-10/10/2014.
2009	*Member of the Organizing Commitee* of the "First European Congress on Microbial Biofilm", Rome, 2-5, September, 2009.
2009	*Chairperson* at the International Conference "First European Congress on Microbial Biofilm", Rome, 2-5, September, 2009.

Part VII.B - Invited and Oral Presentations to conferences

Year	Description
2019	*Invited speaker*, Bristol University, Colston AMR Society Symposium, Bristol 13-14/November/2019. Presentation title: "Antimicrobial biomaterials: chemical and physical approaches".
2018	*Keynote speaker* at the "Word Congress on Advanced Biomaterials and Tissue Engineering", Rome, 17- 18/10/2018. Presentation title: "Polymeric and inorganic nanomaterials as promising tools for the battle against microbial biofilms".
2018	*Keynote speaker* at the International Conference on Microbiology & Infectious Diseases, Rome, 23- 25/07/2018. Presentation title: "The Application of Nanotechnology for Prevention and Treatment of Microbial Biofilm based Infections".
2016	*Invited Speaker* at the "6th Clinical Microbiology Conference", Rome, 20-22/10/2016. Presentation title: "Development of innovative coatings for anti biofilm medical devices".
2010	*Speaker* at the XXXIII International Conference on Microbial Ecology and Disease, Athene, Greece, il 6-10/September/2010. Presentation title: "Novel intrinsically antimicrobial polymers to control biofilm formation on medical devices".
2009	*Invited Speaker* at the "First European Congress on Microbial Biofilm", tenutosi a Rome, 2-5, September, 2009. Presentation title: "Novel strategies to prevent and control biofilm growth on central venous catheters".
2006	*Speaker* at the 34° Congress of the Italian Society for Microbiology, Genova, 15-18/October/2006. Presentation title: "Poliuretani funzionalizzati a rilascio combinato di rifampicina/cefamandolo e polietilenglicole sono in grado di prevenire la colonizzazione batterica e l'insorgenza di antibiotico-resistenza".
2005	*Speaker* at the I workshop Nazionale "Biofilm microbici 2005", Rome 20-21/June/2005. Presentation title: "Biomateriali a rilascio di agenti antimicrobici per lo sviluppo di dispositivi medici antibiofilm".
2004	*Speaker* at the 32° Congress of the Italian Society for Microbiology, Milan, 26-29/September/2004. Presentation title: "L'acido usnico inibisce la formazione di biofilm in *S. aureus* e interferisce con i fenomeni di quorum sensing in *P. aeruginosa*".
2003	*Speaker at the* American Society for Microbiology Conference "Biofilms 2003", Victoria British Columbia, Canada, 1-6/November/2003. Presentation title: "Controlled ultrasonic antibiotic release from hydrogel coatings for biofilm prevention".
2001	*Speaker* at the XV Congress of the Italian Association of Macromolecules (AIM), Trieste, Italy, 24-27/September/2001. Presentation title: "Preparazione di

	superfici polimeriche antibatteriche per la prevenzione di infezioni".
2001	*Speaker* at the 29° Congress of the Italian Society for Microbiology, Genova, Italy, 7-10/November/2001. Presentation title: "Efficacia dell'adsorbimento di antibiotici per la prevenzione delle infezioni associate ai cateteri: nuovi approcci sperimentali".
2001	*Speaker* at the 21° Congress of the Italian Society for Chemotherapy, Florence, Italy, 2-5/December/2001. Presentation title: "Adsorbimento multistrato di un antibiotico sperimentale beta lattamico a matrici polimeriche diverse: un nuovo approccio sperimentale per la prevenzione delle infezioni associate ai cateteri vascolari".

Part VIII – Editorial activity

2019 - current	*Guest Editor* of the Special Issue "Chitosan Functionalizations, Formulations and Composites", International Journal of Molecular Science (I.F. = 4.183), MDPI Publisher.
2019 - current	*Member of the Reviewer Board of "Polymers"* (I.F. = 3.164), MDPI Publisher.
2018	*Guest Editor* of the Special Issue: "Polymeric Systems as Antimicrobial or Antifouling Agents", International Journal of Molecular Science (I.F. = 4.183), MDPI Publisher.
2016	*Guest Editor* of the Special Issue "Antimicrobial Polymers", International Journal of Molecular Science (I.F. = 3.687), MDPI Publisher.
2014 - 2019	*Co-authors of three Book chapters* for RSC publisher, Woodhead Publisher and Springer
2013 - current	*Member of the Editorial Board* of "International Journal of Molecular Science (I.F.= 3.687), section "Materials Science".
2004 - current	*Reviewing activity* for numerous journals in the field of Material Science including Acta Biomaterialia, Scientific Reports, Polymers, Journal of Biomaterials Science-Polymer Edition, Progress in Organic Coatings, Applied Science, Colloids and Surface B, International Journal of Biological Macromolecules, Molecules, Journal of Biotechnology, Journal Biomedical Materials Research Part B, Material sciences and Engineering C.

Part IX - Funding Information

Part IX.A - Grants as PI-Principal Investigator

Year	Title	Program	Grant value
2019	Principal Investigator of the Research Project: "Sintesi di polimeri bioattivi a base di eugenolo".	Sapienza University of Rome Progetto n. RP11916B459A8D63	4.000,00 euro
2017	Principal Investigator of the Research Project: "Sviluppo di nanomateriali polimerici antimicrobici"	Sapienza University of Rome Progetto n. RP11715C785E4434	3.200,00 euro
2016	Principal Investigator at the Research	Sapienza University of Rome	4.000,00 euro

	Project: "Sviluppo di matrici polimeriche bioattive per il wound healing"	Progetto n. RP116154C95A8DC4	
2015	Principal Investigator at the Research Project: "Sviluppo di nanoparticelle magnetiche funzionalizzate per l'immobilizzazione enzimatica"	Sapienza University of Rome Progetto n. C26A15LP27	4.000,00 euro
2014	*Principal Investigator* at the Research Project: "Polimeri antimicrobici a base di sostanze naturali bioattive".	Sapienza University of Rome Progetto n. C26A14584K	8.000,00 euro
2013	*Principal Investigator* at the Research Project: "Cationic polymer nanoparticles for the treatment of lung infections by inhalation therapy".	Sapienza University of Rome Progetto n. C26A13YYBK	12.000,00 euro

Part IX.B - Grants as I-Investigator

2018	Investigator at the Research Project "BioCerMat" funded by Lazio region in the framework of the nell'ambito del Regional Operational Program (POR).	Regional Operational Program (POR). Project n: A0112-2016-13358	80.980,65 euro
2018	Investigator at the Research Project: "Studio delle transizioni di polimeri allo stato amorfo mediante spettroscopia MTFTIR e calorimetria DSC". Principal Investigator Prof. A. Piozzi, Dept. Chemistry, Sapienza University of Rome.	Sapienza University of Rome Progetto n: RM11816435F88EF6	14.000,00 euro
2011	Investigator, at the Research Project: "Nanovettori magnetici core-shell a base di ferrite di manganese per il rilascio mirato di acido usnico" Principal Investigator Prof. A. Piozzi, Dept. Chemistry, Sapienza University of Rome.	Sapienza University of Rome Progetto n: C26A11SWNJ	32.818,00 euro
2010	Investigator, at the Research Project: "Polimeri intrinsecamente antimicrobici per la prevenzione ed il controllo della contaminazione batterica di dispositivi medici" Principal Investigator Prof. A. Piozzi, Dept. Chemistry, Sapienza University of Rome.	Sapienza University of Rome Progetto n: C26A10A8WM	9.000,00 euro
2009	Investigator, at the Research Project: "Nuove strategie per la preparazione di scaffold per l'ingegneria tissutale" Principal Investigator Prof. A. Piozzi, Dept. Chemistry, Sapienza University of Rome	Sapienza University of Rome Progetto n: C26F09F9FN	7.760,00 euro

2008	Investigator, at the Research Project: "Macromolecole biodegradabili di interesse farmaceutico: sintesi e caratterizzazione" Principal Investigator Prof. Lucio D'Ilario, Dept. Chemistry, Sapienza University of Rome	Sapienza University of Rome Progetto n: C26A08EE8N	10.000,00 euro
2008	Investigator, at the Research Project: "Processi di cristallizzazione di poliesteri impiegati in campo medico" Principal Investigator Prof. A. Piozzi, Dept. Chemistry, Sapienza University of Rome	Sapienza University of Rome Progetto n: C26F08W43A	5.000,00 euro
2007	Investigator, at the Research Project: "Sistemi nanostrutturati ferrite/albumina per rilascio mirato di farmaci: caratterizzazione chimico-fisica e biologica" Principal Investigator Prof. Lucio D'Ilario, Dept. Chemistry, Sapienza University of Rome	Sapienza University of Rome Progetto n: C26A07RZPP	12.000,00 euro
2007-2009	Investigator, Scientific Research Project of relevant National Interest (PRIN) dal titolo: "Materiali bioattivi a base di poliesteri: sintesi, modificazioni e caratterizzazione" Principal Investigator Prof. Emo Chiellini, Università di Pisa. Local Principal Investigator Prof. M. Delfini, Dept. Chemistry, Sapienza University of Rome,	PRIN 2006 – prot. 2006038548 Italian Ministry of University Education and Research (MIUR)	350.000,00 euro Unità: 52.760,00 euro
2006	Investigator, at the Research Project: "Preparazione di particelle composite polimeriche magnetiche per applicazioni nel settore biomedico" Principal Investigator Prof. Lucio D'Ilario, Dept. Chemistry, Sapienza University of Rome	Sapienza University of Rome Progetto n: C26A06B7PB	8.000,00 euro
2005	Investigator, at the Research Project: "Preparazione ed ottimizzazione di nuove formulazioni polimeriche a rilascio di molecole biologicamente attive" Principal Investigator Prof. Lucio D'Ilario, Dept. Chemistry, Sapienza University of Rome	Sapienza University of Rome Progetto n: C26A050931	9.500,00 euro
2004-2006	Investigator, Scientific Research Project of relevant National Interest (PRIN): "Formulazione di Nuovi Materiali Polimerici Bioattivi per Applicazioni nel Settore dell'Ingegneria Tissutale", Principal Investigator Prof. Emo Chiellini, Università di Pisa. Local	PRIN 2004 – Italian Ministry of University Education and Research (MIUR)	540.000,00 euro Unità: 38.300,00 euro

	Principal Investigator Prof. A. Piozzi, Dept. Chemistry, Sapienza University of Rome.		
2002-2004	Investigator, Scientific Research Project of relevant National Interest (PRIN): "Nuovi sistemi polimerici nanostrutturati per azioni mirate di principi attivi macromolecolari in tecniche emergenti di ingegneria tissutale e farmacologia avanzata", Principal Investigator Prof. Emo Local Principal Investigator locale Prof. A. Piozzi, Dept. Chemistry, Sapienza University of Rome	PRIN 2002 – Italian Ministry of University Education and Research (MIUR). Project n. 2002034343_005	542.000,00 euro Unità: 69.500,00 euro

Part X – Research Activities

X.A – Research topics

My main research interest concerns polymer chemistry, and specifically the synthesis, functionalization and physico-chemical characterization of polymers, including polyurethanes, polysters, polyacrylamides, for advanced applications in biomedicine and biotechnology. In the followings, my research is summarized in four main areas.

Keywords	**Brief Description**
Antimicrobial Polymers Polyurethanes Cationic Polyacrylamides Microbial Biofilms Medical devices	Antimicrobial polymers represent a very promising class of materials with unique characteristics for fighting microbial infections and microbial resistance development. In this context, different approaches have been pursued over the years including i) drug loading onto properly functionalized polymers (mainly polyurethanes); ii) synthesis of intrinsically bioactive cationic polymers (mainly polyacrylamides); and iii) Synthesis of antifouling polyethylene-glycol (PEG)-based polymers. The research has also concerned the physicochemical characterization of polymers by several techniques (FTIR, 1H-NMR, thermal analysis (DSC, TGA), mechanical tests (stress-strain), dynamomechanics and wettability) in order to find out possible relationship between structure and antimicrobial performance of these materials. The developed polymers have been investigated as potential coatings for implantable medical devices or as matrices for wound dressings.
Antioxidant polymers Catechols Chitosan polyacrylates	Oxidative stress has been identified as a key factor in many diseases, including vascular damage, neurodegenerative diseases and cancer, as well as among the causes of failure of implantable medical devices. Systemic delivery of antioxidants is hampered by poor absorption, loss of bioactivity, and limited half-life. In this framework, antioxidant polymers have been emerged as promising materials for localized, sustained antioxidant activity. Research in this field concerned the synthesis of catechol-bearing polymers obtained by either polymerization of acrylic monomers containing catechol groups or by functionalization of biopolymers (mainly chitosan) with natural antioxidant. Physico-chemical and

	biological characterization of the synthesized polymeric matrices was carried out and application of the developed antioxidant polymeric derivatives in the biomedical field or in the food industry was investigated.

Hybrid Polymeric magnetic nanoparticles Drug release Immobilized enzymes	Engineered magnetic nanoparticles (MNPs) possess unique properties and hold great potential in biomedicine and biotechnology applications. With their magnetic properties, MNP can be applied in targeted drug delivery, imaging as well as supports for enzyme immobilization. The functionalization of MNP with polymers permit to introduce functional groups for drug or enzyme binding. In this context, MNPs based on manganese and iron oxides have been synthesized, characterized in terms of morphological, dimensional and magnetic properties and coated with different functionalized polymers to obtain hybrid nanoparticles. Such systems were used for the adsorption and release of drugs or for immobilization of enzymes, specifically lipases and laccases. Drug loaded MNPs were studied in terms of drug release kinetics and biological activity while enzyme-loaded MNPs were characterized in terms of catalytic activity of the immobilized enzyme and suitability for industrial processes.

Polymer composites Chitosan Graphene oxide Silica Tissue engineering	Polymer composites are widely applied in numerous biomedical applications such as dental, tissue engineering, and wound dressings, due to their outstanding properties and ability to combine properties of different materials. Indeed, the mechanical and thermal characteristics of different polymers can be improved by incorporating proper fillers. In this framework, the research was focused on preparation and physico-chemical characterization of biopolymer-based composites using silica or graphene oxide as reinforcing fillers. Chitosan-graphene oxide composites were investigated as composite materials for bone tissue engineering. Preliminary evaluation of the use of these materials as solid supports for analytical and environmental applications was also carried out.

X.B – Research collaborations

2001 - Current	Prof. Antonella Piozzi	Department of Chemistry, Sapienza University of Rome
2001 - Current	Prof. Gianfranco Donelli	Italian Institute of Health (ISS) – IRCSS Fondazione Santa Lucia, Rome, Italy
2001 - 2004	Dr. Roberta Di Rosa	Faculty of Medicine and Psychology, Sapienza University of Rome
2002-2004	Prof. Mario Venditti	Department of Public Health and Infectious Diseases, Sapienza University of Rome
2003 - current	Prof. Paul Stoodley	Department of Orthopaedics, Ohio State University, Ohio, USA
2003	Prof. Buddy Ratner	Department of Bioengineering, University of Washington, USA
2004 - current	Prof. Andrea Martinelli	Department of Chemistry, Sapienza University of Rome
2004 - 2016	Prof. Lucio D'Ilario	Department of Chemistry, Sapienza University

		of Rome
2006-2007	Prof. J.B. Kaplan	Department of Oral Biology, University of Medicine and Dentistry of New Jersey, Newark, USA.
2009-2011	Dr. Paola Di Bonito	Department of Infectious, Parasitic and Immune-mediated Diseases, Istituto Superiore di Sanità, Roma
2009	Prof. L. Tighzert	Ecole Supérieure d'Ingénieurs en Emballage et Conditionnement, Reims Cedex, France
2010-Current	Dr. Claudia Vuotto	IRCSS Fondazione Santa Lucia, Rome, Italy
2012-2013	Prof. Vesna Antic	Faculty of Agriculture, University of Belgrade, Serbia
2013- 2019	Dr. Loris Pietrelli	ENEA Casaccia research center, Rome
2013-currrent	Dr. Luisa Migneco	Department of Chemistry, Sapienza University of Rome
2014	Prof. Steven Percival	Surface Science Research Centre, University of Liverpool, UK.
2015	Dr. Franco Padella	ENEA Casaccia research center, Rome.
2015	Dr. Lucia Ricci-Vitiani	Italian Institute of Health (ISS), Rome.
2015	Dr. Adriano Boni	Adolphe Merkle Institute (AMI) Center, University of Fribourg, Svizzera
2016	Dr. Wafi Siala	Catholic Univ Louvain, Louvain Drug Res Inst, Pharmacol Cellulaire & Mol, Belgium
2016 - current	Dr. Pamela Pasetto	Institut des Molécules et Matériaux du Mans, Le Mans Université, Le Mans, France
2017-2019	Prof. Martin Garnett	School of Pharmacy, University of Nottingham, Nottingham, UK.
2017-current	Dr. Vincenzo Taresco	School of Chemistry, University of Nottingham, Nottingham, UK.
2017-current	Dr. A. Scotto D'Abusco	Department of Biochemical Sciences “A. Rossi Fanelli”, Sapienza University of Rome.

Part XI – Summary of Scientific Achievements

Product type	Number	Data Base
Papers on international peer-review journals	**63**	Scopus
Book Chapters	3	Scopus
Papers *Epub ahead of print*	1	PubMed
Total number of publications including papers and Book Chapters	**67**	Scopus + PubMed
H index	**21**	Scopus
H index normalized for the academic years	1.19	
Total Number of citations	**1502** (excluding citations from book chapters)	Scopus
Average citations per paper	**23.84** (1502/63)	Scopus
Total Impact Factor (considering IF of publication year = IF_{PY} and 63 paper)	**184.06**	Scopus
Average Impact Factor per publication (only the 63 papers present on Scopus were considered)	**2.92**	Scopus
Number of papers in the last 10 years	**47** (2008-2019) **48** (2009-2020)	Scopus
Number of citations in the last 15 years	**1321** (2004-2019) **1092** (2005-2020)	Scopus
H index in the last 15 years	**21** (2004-2019) **19** (2005-2020)	Scopus

Part XII- List of publications

XII.A – Publications in peer-reviewed journals

**Corresponding Author*; $I.F._{PY}$=Impact Factor publication year

	Paper	I.F. (2018 JCR)	$I.F._{PY}$	Cit.
1.	**Francolini I***, Taresco V, Martinelli A, Piozzi A. Enhanced performance of *Candida rugosa* lipase immobilized onto alkyl chain modified-magnetic	3,553	3,553	0

	nanocomposites. *Enzyme Microb. Technol.* **2020**, 132: 109439 Doi: 10.1016/j.enzmictec.2019.109439.			
2.	**Francolini I***, Piozzi A. Polymeric systems as antimicrobial or antifouling agents. *Int. J. Mol. Sci.* **2019**, 20(19), 4866 Doi: doi.org/10.3390/ijms20194866	4,183	4,183	0
3.	**Francolini I**, Giansanti L, Piozzi A, Altieri B, Mauceri A, Mancini G. Glucosylated liposomes as drug delivery systems of usnic acid to address bacterial infections. *Colloids Surf B Biointerfaces*, **2019**, 181, 632-638. Doi: 10.1016/j.colsurfb.2019.05.056	3,973	3,973	1
4.	**Francolini I***, Silvestro I, Di Lisio V, Martinelli A, Piozzi A. Synthesis, characterization, and bacterial fouling-resistance properties of polyethylene glycol-grafted polyurethane elastomers. *Int. J. Mol. Sci.* **2019**, 20(4), 1001. Doi: 10.3390/ijms20041001; Cit = 6.	4,183	4,183	3
5.	**Francolini I,** Perugini E, Silvestro I, Lopreiato M, Scotto d'Abusco A, Valentini F, Placidi E, Arciprete F, Martinelli A, Piozzi A. Graphene oxide oxygen content affects physical and biological properties of scaffolds based on chitosan/graphene oxide conjugates. *Materials* **2019**, 12(7), 1142. Doi: 10.3390/ma12071142.	2.972	2.972	3
6.	**Francolini I***, Piozzi A. Role of antioxidant molecules and polymers in prevention of bacterial growth and biofilm formation. *Curr Med Chem* **2019**, *Epub ahead of print* doi: 10.2174/0929867326666190409120409	3,894	3,894	0
7.	Di Lisio V, Sturabotti E, **Francolini I**, Piozzi A, Martinelli A. Isotactic polypropylene reversible crystallization investigated by modulated temperature and quasi-isothermal FTIR. *J Polym Sci B Polym Phys* **2019**; 57(14): 922-931. Doi: 10.1002/polb.24847.	2,596	2,596	0
8.	Di Lisio, V.; Sturabotti, E.; **Francolini, I.**; Piozzi, A.; Martinelli, A. Effects of annealing above tg on the physical aging of quenched plla studied by modulated temperature FTIR. *J Polym Sci B Polym Phys* **2019**; 57(3): 174-181. doi:10.1002/polb.24769.	2,596	2,596	1
9.	Amato A, Migneco LM, Martinelli A, Pietrelli L, Piozzi A, **Francolini I***. Antimicrobial activity of catechol functionalized-chitosan versus *Staphylococcus epidermidis*. *Carbohydr Polym*. **2018**; 179: 273-281. doi:10.1016/j.carbpol.2017.09.073.	6,044	5,158	18
10.	Cuzzucoli Crucitti V, Migneco LM, Piozzi A, Taresco V, Garnett M, Argent RH, **Francolini I*.** Intermolecular interaction and solid state characterization of abietic acid/chitosan solid dispersions possessing antimicrobial and antioxidant properties. *Eur J Pharm Biopharm*. **2018**; 125: 114-123. doi: 10.1016/j.ejpb.2018.01.012.	4,708	4,491	5
11.	Pietrelli L, **Francolini I**; Piozzi A, Vocciante M. Metals recovery from printed circuit boards: The pursuit of environmental and economic sustainability. *Chem Eng Trans* **2018**; 70: 271-276. doi: 10.3303/CET1870046.	0,82	0,82	3
12.	Pietrelli L, Palombo M, Taresco V, **Francolini I,** Piozzi A. Copper (II) adsorption capacity of a novel hydroxytyrosol-based polyacrylate. *Polym Bull* **2017**;74(4):1175-1191. Doi: 10.1007/s00289-016-1770-8.	1,858	1,586	2
13.	Pellegrino L, Cocchiola R, **Francolini I**, Lopreiato M, Piozzi A, Zanoni R, Scotto d'Abusco A, Martinelli A. Taurine grafting and collagen adsorption on PLLA films improve human primary chondrocyte adhesion and growth. *Colloids Surf B Biointerfaces* **2017**; 158: 643-649. doi: 10.1016/j.colsurfb.2017.07.047.	3,973	3,997	2
14.	**Francolini I***, Vuotto C, Piozzi A, Donelli G. Antifouling and antimicrobial biomaterials: an overview. *APMIS*. **2017**;125(4):392-417. doi:	2,225	2,026	44

	10.1111/apm.12675.			
15.	Crisante F, Taresco V, Donelli G, Vuotto C, Martinelli A, D'Ilario L, Pietrelli L, **Francolini I***, Piozzi A. Antioxidant hydroxytyrosol-based polyacrylate with antimicrobial and antiadhesive activity versus *Staphylococcus epidermidis*. *Adv Exp Med Biol* **2016**:901:25-36. Doi: 10.1007/5584_2015_5013.	2,126	1,937	2
16.	Siala W, Van Bambeke F, Taresco V, Piozzi A, **Francolini I*.** Synergistic activity between an antimicrobial polyacrylamide and Daptomycin vs. *Staphylococcus aureus* biofilm. *Pathog Dis* **2016**;75(5): ftw042. Doi: 10.1093/femspd/ftw042.	2,182	2,335	4
17.	Bakry A, Aversano R, D'Ilario L, Di Lisio V, **Francolini I**, Piozzi A, Martinelli A. Flexible aliphatic poly(isocyanurate-oxazolidone) resins based on poly(ethylene glycol) diglycidyl ether and 4,4'-methylene dicyclohexyl diisocyanate. *J Appl Polym Sci* **2016**;133(19):43404. Doi: 10.1002/app.43404	2,188	1,860	3
18.	Pietrelli L, **Francolini I,** Piozzi A. Dyes Adsorption from Aqueous Solutions by Chitosan. *Sep Sci Technol* **2015**;50(8):1101-1107. Doi: 10.1080/01496395.2014.964632.	1,354	1,083	8
19.	Percival SL, **Francolini I**, Donelli G. Low-Level Laser Therapy as an antimicrobial and anti-biofilm technology and its relevance to wound healing. *Future Microbiol* **2015;**10(2):255-72. Doi: 10.2217/fmb.14.109.	2,746	3,637	12
20.	**Francolini I***, Donelli G, Crisante F, Taresco V, Piozzi A. Antimicrobial Polymers for Anti-biofilm Medical Devices: State-of-Art and Perspectives. *Adv Exp Med Biol*. **2015**;831:93-117. Doi: 10.1007/978-3-319-09782-4_7.	2,126	1,953	21
21.	Taresco V, Crisante F, **Francolini I**, Martinelli A, D'Ilario L, Ricci-Vitiani L, Buccarelli M, Pietrelli L, Piozzi A. Antimicrobial and antioxidant amphiphilic random copolymers to address medical device-centered infections. *Acta Biomat* **2015**;22:131-140. Doi: 10.1016/j.actbio.2015.04.023.	6,638	6,008	21
22.	Taresco V, Gontrani L, Crisante F, **Francolini I**, Martinelli A, D'Ilario L, Bordi F, Piozzi A. Self-Assembly of Catecholic Moiety-Containing Cationic Random Acrylic Copolymers. *J Phys Chem B* **2015**;119(26):8369-8379. Doi: 10.1021/acs.jpcb.5b05022.	2,923	3,187	8
23.	V. Taresco, **I. Francolini***, F. Padella, M. Bellusci, A. Boni, C. Innocenti, A. Martinelli, L. D'Ilario, A. Piozzi. Design and characterization of antimicrobial usnic acid loaded-core/shell magnetic nanoparticles. *Mat Sci Eng C-Mater* **2015**; 52:72–81. Doi: 10.1016/j.msec.2015.03.044.	4,959	3,420	21
24.	Di Bonito P, Petrone L, Casini G, **Francolini I**, Ammendolia MG, Accardi L, Piozzi A, D'Ilario L, Martinelli A. Amino-functionalized poly(L-lactide) lamellar single crystals as a valuable substrate for delivery of HPV16-E7 tumor antigen in vaccine development. *Int J Nanomed* **2015**;10:3447-3458. Doi: 10.2147/IJN.S76023.	4,471	4,320	15
25.	**Francolini I***, Donelli G, Vuotto C, Baroncini FA, Stoodley P, Taresco V, Martinelli A, D'Ilario L, Piozzi A. Antifouling polyurethanes to fight device-related staphylococcal infections: synthesis, characterization, and antibiofilm efficacy. *Pathog Dis.* **2014**;70(3):401-7. Doi: 10.1111/2049-632X.12155.	2,182	2,403	17
26.	Martinelli A, Bakry A, D'Ilario L, **Francolini I**, Piozzi A, Taresco V. Release behavior and antibiofilm activity of usnic acid-loaded carboxylated poly(l-lactide) microparticles. *Eur J Pharm Biopharm* **2014**;88(2): 415–423. Doi: 10.1016/j.ejpb.2014.06.002.	4,708	3,850	22
27.	Percival SL, Suleman L, **Francolini I**, Donelli G. The effectiveness of	2,746	4,275	8

	photodynamic therapy on planktonic cells and biofilms and its role in wound healing. *Future Microbiol* **2014**;9(9):1083-1094. Doi: 10.2217/fmb.14.59			
28.	Martinelli A, D'Ilario L, **Francolini I**, Piozzi A, Pizzi E. Partially sulfonated ethylene-vinyl alcohol copolymer as new substrate for 3,4-ethylenedioxythiophene vapor phase polymerization. *J Polym Sci Pol Phys* **2014**;52(18):1203-1210. Doi: 10.1002/polb.23556	2,596	3,83	0
29.	**Francolini I***, Piozzi A, Donelli G. Efficacy Evaluation of Antimicrobial Drug-Releasing Polymer Matrices. *Methods Mol Biol.* **2014**;1147:215-25. doi: 10.1007/978-1-4939-0467-9_15.	1,29	1,29	9
30.	Piozzi, A., **Francolini, I**. Editorial of the special issue antimicrobial polymers. *Int J Mol Sci* **2013**;14(9):18002-18008. Doi: 10.3390/ijms140918002	4,183	2,339	4
31.	Balaban, M., Antić, V., Pergal, M., Godjevac, D., **Francolini, I.**, Martinelli, A., Rogan, J., Djonlagić, J. Influence of the chemical structure of poly(urea-urethane-siloxane)s on their morphological, surface and thermal properties. *Polym Bull* **2013**;70(9):2493-2518. Doi: 10.1007/s00289-013-0968-2.	1,858	1,491	11
32.	Martinelli, A., Carru, G.A., D'Ilario, L., Caprioli, F., Chiaretti, M., Crisante, F., **Francolini, I**., Piozzi, A. Wet adhesion of buckypaper produced from oxidized multiwalled carbon nanotubes on soft animal tissue. *ACS Appl Mater Inter* **2013**;5(10):4340-4349. Doi: 10.1021/am400543s.	8,456	5,900	20
33.	**Francolini, I**., Taresco, V., Crisante, F., Martinelli, A., D'Ilario, L., Piozzi, A. Water soluble usnic acid-polyacrylamide complexes with enhanced antimicrobial activity against Staphylococcus epidermidis. *Int J Mol Sci* **2013**;14(4):7356-7369. Doi: 10.3390/ijms14047356.	4,183	2,339	29
34.	Balaban, M., Antić, V., Pergal, M., **Francolini, I**., Martinelli, A., Djonlagić, J. The effect of polar solvents on the synthesis of poly(urethane-urea-siloxane)s. *J Serb Chem Soc* **2012**;77(10):1457-1481. Doi: 10.2298/JSC111025056B.	0,828	0,912	7
35.	A. Bakry, A. Martinelli, M. Bizzarri, A. Cucina, L. D'Ilario, **I. Francolini**, A. Piozzi, S. Proietti. A new approach for the preparation of hydrophilic poly(L-lactide) porous scaffold for tissue engineering by using lamellar single crystals. *Polym Int* **2012**;61(7):1177-1185 Doi: 10.1002/pi.4197.	2,433	2,125	7
36.	Bellusci M, **Francolini I**, Martinelli A, D'Ilario L, Piozzi A. Lipase immobilization on differently functionalized vinyl-based amphiphilic polymers: influence of phase segregation on the enzyme hydrolytic activity. *Biomacromolecules* **2012**;13(3):805-13. Doi: 10.1021/bm2017228.	5,667	5,371	21
37.	**Francolini I***, Crisante F, Martinelli A, D'Ilario L, Piozzi A. Synthesis of biomimetic segmented polyurethanes as antifouling biomaterials. *Acta Biomater* **2012**;8(2):549-58. Doi: 10.1016/j.actbio.2011.10.024.	6,638	5,093	29
38.	Martinelli A., Calì M, D'Ilario L, **Francolini I**, Piozzi A. Effect of Nucleation Mechanism on Complex Poly(L-lactide) non-Isothermal Crystallization Process. Part 2: Crystallization Kinetics Analysis. *J Appl Polym Sci* **2012**; 123(5):2697–2705. Doi: 10.1002/app.34833.	2,188	1,395	3
39.	Martinelli A., Calì M, D'Ilario L, **Francolini I**, Piozzi A. Effect of the Nucleation Mechanism on Complex Poly(L-lactide) non-Isothermal Crystallization Process. Part 1: Thermal and Structural Characterization. *J Appl Polym Sci* **2011**;121(6):3368-3376. Doi: 10.1002/app.33978.	2,188	1,289	7
40.	Martinelli A, D'Ilario L, **Francolini I**, Piozzi A. Water state effect on drug release from an antibiotic loaded polyurethane matrix containing	3,061	3,350	22

	albumin nanoparticles. *Int J Pharm,* **2011;**407:197-206. Doi: 10.1016/j.ijpharm.2011.01.029.			
41.	**Francolini I***, D'Ilario L, Guaglianone E, Donelli G, Martinelli A, Piozzi A. Polyurethane anionomers containing metal ions with antimicrobial properties: thermal, mechanical and biological characterization. *Acta Biomater* **2010**;6(9):3482-90. Doi: 10.1016/j.actbio.2010.03.042.	6,638	4,824	60
42.	G. Quattrociocchi, **I. Francolini**, A. Martinelli, L. D'Ilario, A. Piozzi. Synthesis and properties of block poly(ether-ester)s based on poly(ethylene oxide) and different hydrophobic segments. *Polym Int* **2010**:59(8); 1052–1057. Doi: 10.1002/pi.2823.	2,433	2,056	4
43.	**Francolini I**, Donelli G. Prevention and control of biofilm-based medical-device-related infections. *FEMS Immunol Med Microbiol* **2010**;59(3):227-38. Doi: 10.1111/j.1574-695X.2010.00665.x.	3,078	2,494	226
44.	**Francolini I***, Palombo M, Casini G, D'Ilario L, Martinelli A, Rinaldelli V, Piozzi A. Novel manganese-ferrite nanocomposites for targeted delivery of anticancer drugs. *J Control Release* **2010**;48:57-59. Doi: 10.1016/j.jconrel.2010.07.021	7,901	7,164	3
45.	Casini G, Petrone l, Bakry A, **Francolini I***, Di Bonito P, Giorgi C, Martinelli A, Piozzi A, D'Ilario L. Functionalized poly(l-lactide) single crystals coated with antigenes in development of vaccines. *J Control Release* **2010**;48:106-108. Doi: 10.1016/j.jconrel.2010.07.080.	7,901	7,164	4
46.	Crisante F, **Francolini I**, Bellusci M, Martinelli A, D'Ilario L, Piozzi A. Antibiotic delivery polyurethanes containing albumin and polyallylamine nanoparticles. *Eur J Pharm Sc*i, **2009**;36:555-564. Doi: 10.1016/j.ejps.2008.12.006.	3,532	2,608	61
47.	D'Ilario L, **Francolini I**, Martinelli A, Piozzi A. Some insight on the Heparin-Toluidine Blue interaction. *Dyes Pigments* **2009**;80:343-348. Doi: 10.1016/j.dyepig.2008.07.015.	4,018	2,855	18
48.	Martinelli A, Tighzert L, D'Ilario L, **Francolini I**, Piozzi A. Poly(vinyl acetate)/polyacrylate semi-interpenetrating polymer networks. Part 1: synthesis and polymerization kinetics. *J Appl Polym Sci* **2009**;111:2669–2674. Doi: 10.1002/app.29273.	2,188	1,203	2
49.	Martinelli A, Tighzert L, D'Ilario L, **Francolini I**, Piozzi A. Poly(vinyl acetate)/polyacrylate semi-interpenetrating polymer networks. Part 2: thermal, mechanical and morphological characterization. *J Appl Polym Sci* **2009**;111:2675-2683. Doi: 10.1002/app.29291.	2,188	1,203	3
50.	L. D'Ilario, **I. Francolini**, A. Martinelli and A. Piozzi. Dipyridamole-loaded poly(L-lactide) single crystals as drug delivery systems. *Macromol Rapid Comm* **2007**;28:1900-1904. Doi: 10.1002/marc.200700224.	4,078	3,383	26
51.	Donelli G, **Francolini I**, Romoli D, Guaglianone E, Piozzi A, Ragunath C, Kaplan JB. Synergistic activity of dispersin B and cefamandole nafate in the inhibition of staphylococcal biofilm growth on polyurethanes. *Antimicrob Agents Chemother* **2007**;51(8):2733-2740. Doi: 10.1128/AAC.01249-06.	4,715	4,390	113
52.	Ruggeri V, **Francolini I**, Donelli G, Piozzi A. Synthesis, characterization, and *in vitro* activity of antibiotic releasing polyurethanes to prevent bacterial resistance. *J Biomed Mater Res A*. **2007**;81A(2):287-298. Doi: 10.1002/jbm.a.30984.	3,221	2,612	47
53.	Lanciotti S, Bellusci M, **Francolini I**, Ruggeri V, Piozzi A. Chemical functionalization of vinyl polymers to obtain heparin-like materials. *Macromol Symp* **2006**; 234: 211-216. Doi: 10.1002/masy.200650227.	0,913	0,913	3
54.	**Francolini I**, Ruggeri V, Martinelli A, D'Ilario L, Piozzi A. Novel metal-	4,078	3,164	25

	polyurethane complexes with enhanced antimicrobial activity. *Macromol Rapid Comm* **2006**;27:233-237. Doi: 10.1002/marc.200500786.			
55.	Donelli G, **Francolini I**, Ruggeri V, Guaglianone E, D'Ilario L, Piozzi A. Pore formers promoted release of an antifungal drug from functionalised polyurethanes to inhibit *Candida* colonization. *J Appl Microbiol* **2006**;100:615-622. Doi: 10.1111/j.1365-2672.2005.02801.x.	2,683	2,206	21
56.	Norris P, Noble M, **Francolini I**, Vinogradov A, Stewart P, Ratner B, Costerton JW, Stoodley P. Ultrasonically controlled release of ciprofloxacin from pHEMA hydrogel coatings for *Pseudomonas aeruginosa* biofilm prevention. *Antimicrob Agents Chemother* **2005**;49(10):4272–4279. Doi: 10.1128/AAC.49.10.4272-4279.2005.	4,715	4,379	54
57.	**Francolini I**, Norris P, Piozzi A, Donelli G, Stoodley P. Usnic acid: a natural antimicrobial agents able to inhibit bacterial biofilm formation on polymer surfaces. *Antimicrob Agents Chemother* **2004**;48(11):4360-4365. Doi: 10.1128/AAC.48.11.4360-4365.2004.	4,715	4,216	155
58.	Piozzi A, **Francolini I**, Occhiaperti L, Di Rosa R, Ruggeri V, Donelli G. Polyurethanes loaded with antibiotics: influence of polymer-antibiotic interactions on *in vitro* activity against *Staphylococcus epidermidis*. *J Chemother* **2004**:16(5):446-452. Doi: 10.1179/joc.2004.16.5.446.	1,599	1,104	23
59.	Piozzi A, **Francolini I**, Occhiaperti L, Venditti M, Marconi W. Antimicrobial activity of polyurethanes coated with antibiotics: a new approach to the realization of medical devices exempt from microbial colonization. *Int J Pharm* **2004**;280(1-2):173-83. Doi: 10.1016/j.ijpharm.2004.05.017.	3,061	2,039	51
60.	**Francolini I**, Donelli G, Stoodley P. Polymer designs to control biofilm growth on medical devices. *Rev Environ Sci Bio* **2003**; 2(2): 307-319. Doi: 10.1023/B:RESB.0000040469.26208.83.	4,938	2,34	35
61.	Donelli G, **Francolini I**, Piozzi A, Di Rosa R, Marconi W. New polymer-antibiotic systems to inhibit bacterial biofilm formation: A suitable approach to prevent central venous catheter-associated infections. *J Chemother* **2002**;14(5):501-507. Doi: 10.1179/joc.2002.14.5.501.	1,599	0,828	40
62.	Donelli G, De Paoli P, Fadda G, Marone P, Nicoletti G, Varaldo PE,and the CVC study group (**Francolini I** et al.). A multicenter study on central Venous Catheter- associated infections in Italy. *J Chemother* **2001**;13(1):251-262. Doi: 10.1179/joc.2001.13.Supplement-2.251.	1,599	1,256	25
63.	Donelli G, **Francolini I** Efficacy of antiadhesive, antibiotic and antiseptic coatings in preventing catheter-related infections. *J Chemother* **2001**;13(6):595-606. Doi: 10.1179/joc.2001.13.6.595.	1,599	1,256	69
64.	Marconi W, **Francolini I**, Piozzi A, Di Rosa R. Antibiotic releasing urethane polymers for prevention of catheter-related infections. *J Bioact Compat Pol* **2001**;16(5):393-407. Doi: 10.1106/G5EB-LL73-K59A-7YBF.	1,976	0,571	21

XII.B – Book chapters

Book chapters	**Publisher**	**Cit.**
1. Piozzi A, **Francolini I**. Biomimetic polyurethanes. In *Polymeric materials with antimicrobial activity from synthesis to applications,* 1st ed.; Muñoz-Bonilla A, Cerrada M, Fernández-García M, Eds.; RSC Publishing, UK, **2014**, 224-264.	RSC	2
2. **Francolini I***, Piozzi A. Antimicrobial polyurethanes for intravascular medical devices. Chapter 12, pages 349-385, in Elsevier Ltd. Book: Advances in polyurethane biomaterials. Edited by SL Cooper and J. Guan. **2016**, Woodhead	Elsevier	4

	Publishing.		
3.	**Francolini I***, Piozzi A, Donelli G. Usnic Acid: potential role in management of wound infections. Adv Exp Med Biol. **2019**; 13: 31-41	Springer	0

XIII.C – Conference papers

1.	Silvestro I., Prudenti N, **Francolini I**, Piozzi A. **(2019)** Polyethyleneglycole diglycidyl ether crosslinked chitosan membranes containing graphene oxide as promising materials for wound dressings. International Conference on Materials Engineering and Nanotechnology (ICMEN 2019), Kuala Lumpur, Malaysia 2-5/12/2019, Poster n.P130
2.	Cianflone E., Di Consiglio M., Silvestro I., Migneco L.M., Martinelli A., Piozzi A., **Francolini I**. **(2019)** Synthesis and characterization of bioactive eugenol-based acrylate polymers. VIII Convegno Giovani Ricercatori 2019, 25-26/06/2019, Rome, Italy. Poster n. PII.29
3.	Silvestro I., **Francolini I**. Influence of graphene oxide oxygen content on properties of chitosan/graphene oxide composites. VIII Convegno Giovani Ricercatori 2019, 25-26/06/2019, Rome, Italy. Poster n. PI.29.
4.	Vuotto, C.; Stirpe, M.; **Francolini, I.**; Donelli, G.; Zlotkin A. **(2018)** Investigation on the ability of grZ14s-nvCyc-3PEG-Pal peptide to prevent E. COLI biofilm. Proceedings del 8th ASM Conference on Biofilms. October 7 – 11, 2018, Washington DC, USA, Poster n.9.
5.	Vuotto, C.; Stirpe, M.; Donelli, G.; Brugnoli, B.; Piozzi, A.; **Francolini, I. (2018)** Anti-biofilm efficacy of a non-ionic surfactant, Poloxamer 338, adsorbed on silicone urinary catheters. Atti del 46 Congresso Nazionale della Società Italiana di Microbiologia, Palermo, 26-29 Settembre, 2018, pag. 39.
6.	Di Consiglio, M.; Silvestro, **I.**; Migneco, L.M.; Martinelli, A.; Piozzi, A.; **Francolini, I. (2018)** Nanoparticelle polimeriche cationiche per il rilascio di un farmaco antimicrobico. Atti del XXXIII Convegno Italiano di Scienza e tecnologia delle Macromolecole, Catania, 9-12/09/2018, P4.4 pag. 200.
7.	Silvestro, **I.**; Apriceno, A.; Girelli, A.; **Francolini, I.**; Martinelli, A.; Piozzi, A. **(2018)** Sistemi nanoparticellari magnetici come supporti di immobilizzazione enzimatica per applicazioni industriali**.** Atti del XXXIII Convegno Italiano di Scienza e tecnologia delle Macromolecole, Catania, 9-12/09/2018, P3.3 pag. 170.
8.	Di Lisio, V.; **Francolini, I.**; Piozzi, A.; Sturabotti, E.; Martinelli, A. **(2018)** Analisi FTIR a modulazione di temperatura di trattamenti termici sul PLLA amorfo. Atti del XXXIII Convegno Italiano di Scienza e tecnologia delle Macromolecole, Catania, 9-12/09/2018, P2.2 pag. 160.
9.	Di Lisio, V.; **Francolini, I.**; Piozzi, A.; Sturabotti, E.; Martinelli, A. **(2018)** Study on isotactic polypropylene melt crystallization by temperature modulated FTIR. Atti del XXXIII Convegno Italiano di Scienza e tecnologia delle Macromolecole, Catania, 9-12/09/2018, O2.1 pag. 69.
10.	Vuotto, C.; Donelli, G., Piozzi, A.; **Francolini I. (2017)** Effect of GO on Biofilm-Growing E. coli and K. pneumoniae Strains. Fifth European Congress on Microbial Biofilms, Amsterdam, September 19-22, 2017. Poster 024, pag. 97.
11.	**I. Francolini (2016)** Development of innovative coatings for antibiofilm medical devices. Proceedings of the 6th Clinical Microbiology Conference, October 20-22, Rome, Italy.
12.	**Francolini,** A. Amato, A. Piozzi, A. Martinelli, L. Migneco, G. Donelli, C. Vuotto **(2016)** Chitosan derivatives with antioxidant and antimicrobial activity for wound dressing applications. Proceedings of the 26th ECCMID, EV0926, April 9-12, Amsterdam, Netherlands.
13.	L. Pietrelli, **I. Francolini,** A. Piozzi **(2015)** Chromium adsorption from aqueous solutions by chitosan. Proceedings of the 8th European Symposium on Biopolymers ESBP 2015, PPS 5.19 September 15-18, Rome, Italy.
14.	**I. Francolini,** V. D'Arienzo, A. Martinelli, L. D'Ilario, L. Pietrelli, A. Piozzi **(2015)** Synthesis of chitosan derivatives with antioxidant activity. Proceedings of the 8th European Symposium on Biopolymers ESBP 2015, PPS 5.22 September 15-18, Rome, Italy.

15.	F. Crisante, V. Taresco, G. Donelli, C. Vuotto, A. Martinelli, L. D'Ilario, L. Pietrelli, **I. Francolini,** A. Piozzi **(2015)** A novel antioxidant polymer active against Staphylococcus epidermidis. Proceedings of the Fourth European Congress on Bacterial Biofilms – Eurobiofilms 2015, June 23-26, Brno, Czech Republic.
16.	V. Taresco, **I. Francolini,** F. Padella, M. Bellusci, A. Boni, C. Innocenti, A. Martinelli, L. D'Ilario, A. Piozzi **(2015)** Surface-engineered core/shell magnetic nanoparticles with antimicrobial activity. Proceedings of the European Polymer Federation Congress EPF2015, June 21-26, Dresden, Germany.
17.	A. Bakry, **I. Francolini,** A. Martinelli, L. D'Ilario, A. Piozzi **(2015)** Synthesis and characterization of a novel flexible aliphatic poly(isocyanurate–oxazolidone) thermosetting resin. Proceedings of the European Polymer Federation 2015, June 21-26, Dresden, Germany.
18.	L. Pietrelli, M. PIETRANTONIO, A. PIOZZI, R. Flammini, **I. Francolini (2014)** Material recovery from printed circuit boards: characterization and recycling strategy. SUM 2014, Second Symposium on Urban Mining. 19-21, May 2014, Bergamo.
19.	L. Pietrelli, **I. Francolini,** F. Iacucci, N. Pietrunti, A. Piozzi **(2014)** Sviluppo di un sistema innovativo di riciclaggio del polistirene espanso. ECOMONDO 2014, W1-13, 5-8 novembre 2014, Rimini**.**
20.	A. Martinelli, **I. Francolini,** A. Bakry, L. D'Ilario, V. Taresco, A. Piozzi **(2014)** Carboxylated poly(L-lactide) microparticles as carriers for usnic acid: evaluation of release behaviour and activity against S. epidermidis. Proceedings of the Meeting of the ESCMID study group for Biofilms, P31, October 9-10, Rome, Italy.
21.	I **Francolini,** FA Baroncini, G Donelli, P Stoodley, C Vuotto, V Taresco, A Martinelli, L D'Ilario, A Piozz**I. (2013)** Antifouling polyurethanes to fight medical device-related infections. Abstract Book EUROBIOFILMS 2013, PE129, Ghent, Belgium, September 9-12, 2013.
22.	E. Pizzi, F. Crisante, L. D'Ilario, **I. Francolini,** A. Martinelli, A. Piozzi **(2011)** New polyanion template for poly(3,4-ethylenedioxythiophene) (PEDOT) synthesis. Book of Abstracts del XX Convegno Italiano di Scienza e Tecnologia delle Macromolecole, p. 79-82, 4-8 Settembre Tern**I.**
23.	F. Micozzi, F. Crisante, V. Taresco, **I. Francolini,** A. Martinelli, L. D'Ilario, A. Piozzi (**2011**) Synthesis and properties of star-branched polymers for pharmaceutical applications. Book of Abstracts del XX Convegno di Scienza e Tecnologia delle Macromolecole, p. 633-636, 4-8 settembre **2011** Terni**.**
24.	G. Casini, F. Crisante, L. D'Ilario, **I. Francolini,** A. Martinelli, A. Piozzi **(2011)** New syntheses of manganese ferrite /PLLA core-shell nanoparticles for biomedical applications. Book of Abstracts del XX Convegno Italiano di Scienza e tecnologia delle Macromolecole, p. 637-640, 4-8 Settembre Terni**.**
25.	F. Crisante, V. Taresco, **I. Francolini,** A. Martinelli, L. D'Ilario, A. Piozzi **(2011)** Synthesis of an antioxidant and antimicrobial polymer containing cathecolic moieties. Book of Abstracts del XX Convegno Italiano di Scienza e Tecnologia delle Macromolecole, p. 629-632, 4-8 Settembre Terni**.**
26.	V. Antic, M. Balaban, M. Pergal, **I. Francolini,** A. Martinelli (**2011**) Synthesis, Structure and Properties of Poly(urethane-urea-siloxane)s. Proceedings of the European Polymer Congress **2011**, p. 1059, June 26 - July 1 Granada, Spain.
27.	C. Vuotto, **I. Francolini,** E. Guaglianone, G. Donell**I.** Anti- staphylococcal biofilm efficacy of Daptomycin and Tigecycline: an in vitro evaluation. Proceedings of the Eurobiofilms **2011**, p.110, July, 6-8 Copenhagen, Denmark.
28.	C. Vuotto, E. Guaglianone, **I. Francolini,** R. Cardines, P. Mastrantonio, G. Donelli (**2010**) Biofilm of anaerobic bacterial species isolated from clogged biliary stents. Proceedings of the XXXIII International Congress on Microbial Ecology and Disease, p. 66, Greece, 6-10 September.
29.	**I. Francolini,** L. D'Ilario, E. Guaglianone, C. Vuotto, G. Donelli, A. Martinelli, A. Piozzi (**2010**) Novel intrinsically antimicrobial polymers to control biofilm formation on medical devices. Proceedings of the XXXIII International Congress on Microbial Ecology and Disease p. 67, Greece, 6-10 September.
30.	**Francolini I.**, G. Donell**I.** Novel Strategies to prevent and control biofilm growth on central venous catheters. First European Conference on Biofilms, Lecture 42, pag. 84, **2009**, 2-5 September, Rome, Italy.

31.	A. Piozzi, **Francolini I.**, M.F. Silvestri, E. Guaglianone, G. Donelli, A. Martinelli, L. D'Ilario. Polyurethanes adsorbed with cefamandole nafate and fluconazole to inhibit the formation of polymicrobial biofilms. First European Conference on Biofilms, P24, pag. 84, **2009**, 2-5 September, Rome, Italy.
32.	G. Donelli, E. Guaglianone, A. Martinelli, A. Piozzi, L. D'Ilario, **Francolini I.** Antibiofilm properties of functionalized polyurethanes adsorbed with metal ions. First European Conference on Biofilms, P21, pag. 82, **2009**, 2-5 September, Rome, Italy.
33.	Farmand Ashtiani F, **Francolini I.**, Martinelli A, D'Ilario L, Piozzi A. Conducting polyesters for biomedical applications. In: European Polymer Congress, **2007**, 2-6 Luglio, Portoroz, Slovenia.
34.	Benvenuto L, D'Ilario L, **Francolini I.**, Martinelli A, Piozzi A (2007). Hydrolyzed poly(L-lactide) single crystals as drug carriers. In: European Polymer Congress, **2007**, 2-6 Luglio, Portoroz, Slovenia.
35.	D'Ilario L, **Francolini I.**, Martinelli A, Piozzi A. Cristalli singoli di poli(l-lattide) come sistema per rilascio controllato di farmaci, ad esempio il dipiridamolo. In: XVIII Convegno Nazionale Associazione Italiana Macromolecole, **2007**, 16-20 settembre, Catania.
36.	Antonucci L, **Francolini** I, Martinelli A, D'Ilario L, Piozzi A. Poliuretani segmentati biodegradabili funzionalizzati: sintesi e caratterizzazione. In: XVIII Convegno Nazionale Associazione Italiana Macromolecole, **2007**, 16-20 Settembre, Catania.
37.	**I. Francolini,** A. Piozzi, V. Ruggeri, E. Guaglianone, G. Donelli**.** Functionalized polyurethanes releasing rifampin/cefamandole and polyethylen glycol able to prevent bacterial colonization and the emergence of resistant strains. 4th ASM Conference on Biofilms, A309, **2007**, March 25-29, Quebèc city, Quebéc, Canada.
38.	G. Donelli, **I. Francolini,** D. Romoli, E. Guaglianone, A. Piozzi, C. Ragunath, J. B. Kaplan. Staphylococcus epidermidis biofilm growth on polyurethanes is inhibited by the synergistic action of Dispersin B and cefamandole nafate. 4th ASM Conference on Biofilms, B344, **2007**, March 25-29, Quebèc city, Quebéc, Canada.
39.	G. Donelli, **I. Francolini,** A. Piozzi**.** Novel strategies to control biofilm formation on medical devices. 4th ASM Conference on Biofilms, B342, **2007**, March 25-29, Quebèc city, Quebéc, Canada.
40.	**Francolini I.**, A. Piozzi, V. Ruggeri, E. Guaglianone, G. Donelli**.** Poliuretani funzionalizzati a rilascio combinato di rifampicina/cefamandolo e polietilenglicole in grado di prevenire la colonizzazione batterica e l'insorgenza di antibiotico-resistenza. Atti del 34° Congresso Nazionale della Società Italiana di Microbiologia, pp. 37, **2006**, 15-18 Ottobre, Genova, Italy.
41.	V. Ruggeri, **I. Francolini,** G. Quattrociocchi, A. Piozzi**.** Synthesis and characterization of novel polyesters for biomedical application. 17th Congresso Associazione Italiana Macromolecole, **2005**, September 11-15, Napol**I.**
42.	M. Bellusci, **I. Francolini,** S. Panciotti, V. Ruggeri, A. Piozzi. Chemical functionalization of vinyl polymers to obtain heparin-like materials. 17th Congresso Associazione Italiana Macromolecole, **2005**, September 11-15, Napol**I.**
43.	A. Piozzi, **I. Francolini,** V. Ruggeri, G. Donelli, L. D'Ilario Antimicrobial biomaterials based on transitino metal-containing polyurethanes and loaded with ciprofloxacin. 19th European Conference on Biomaterials, P601. **2005**, September 11-15, Sorrento, Italy.
44.	V. Ruggeri, **I. Francolini,** M. Bellusci, A. Piozzi, G. Donell**I.** Rilascio di una combinazione di antibiotici da matrici poliuretaniche per prevenire la formazione di biofilm microbici e contrastare l'insorgenza di antibiotico-resistenza. P15, I° Workshop Nazionale Biofilm Microbici **2005**, 20-21 giugno, Roma, Italy.
45.	G. Donelli, **I. Francolini,** E. Guaglianone, J.B. Kaplan, P. Stoodley. Nuove strategie per prevenire lo sviluppo di biofilm microbici e ottenerne la disgregazione. I° Workshop Nazionale Biofilm Microbici **2005**, 20-21 giugno, Roma, Italy.
46.	**Francolini I.** A. Piozzi, V. Ruggeri, M. Bellusci, G. Donelli Biomateriali a rilascio di agenti antimicrobici per lo sviluppo di dispositivi medici anti-biofilm. I° Workshop Nazionale Biofilm Microbici **2005**, 20-21 giugno, Roma, Italy.
47.	G. Donelli, **I. Francolini,** V. Ruggeri, E. Guaglianone, A. Piozz**I.** Inhibition of Candida growth and

	biofilm formation on polyurethanes by fluconazole adsorption, P1660, 15th ECCMID **2005**, April 2-5, Copenhagen, Denmark.
48.	G. Donelli, **I. Francolini,** V. Ruggeri, E. Guaglianone, A. Piozz**I.** Poliuretani a rilascio di fluconazole in grado di prevenire la colonizzazione da Candida albicans nei dispositivi medici impiantabil**I.** VII Congresso Nazionale IBAT **2005** Le Infezioni in Medicina V. 13, suppl. 1, 26-29 gennaio, Napoli, Italy.
49.	**Francolini I.**, Donelli G., Guaglianone E., Piozzi A., Norris P., Stoodley P. Inhibition of Bacterial Biofilm Formation on Polymer Surfaces by a Natural Antimicrobial Agent. 104rd General Meeting American Society for Microbiology, poster number Q-389. **2004**. May 23-27, New Orleans, LA, USA.
50.	Donelli G., **Francolini I.** Guaglianone E., Piozzi A., Norris P., Stoodley P. Inhibition of biofilm formation in Gram-positive bacteria. SOMED Conference XXVII**I. 2004**. May 6-9. Lo-skolen, Helsingor, Denmark.
51.	Donelli G., **Francolini I.** Guaglianone E., Piozzi A., Norris P., Stoodley P. A natural antimicrobial agent able to inhibit biofilm formation on indwelling medical devices. 14th European Congress of Clinical Microbiology and Infectious Diseases. 10(3); 597. **2004**. May 1-4. Prague, Czech Republic.
52.	**Francolini I.**, E. Guaglianone, A. Piozzi, P. Norris, P. Stoodley, G. Donell**I.** L'acido usnico inibisce la formazione di biofilm in S. aureus e interferisce con i fenomeni di quorum sensing in P. aeruginosa. Atti del 32° Congresso Nazionale della Società Italiana di Microbiologia, pp. 81, **2004**. 26-29 Settembre, Milano, Italy.
53.	**Francolini I.**, Norris P., VanBuren K., Noble M., Ratner B., Donelli G., Stoodley P. Controlled ultrasonic antibiotic release from hydrogel coatings for biofilm prevention. Biofilms 2003 Conference, pp. 163. **2003**. November 1-6, Victoria, British Columbia, Canada.
54.	Donelli G., Di Carlo V., Guaglianone E., **Francolini I.**, Piozzi A., Marconi W., Di Rosa R., Leone F., Mazzella P., Rossi A., Antonelli M., Fadda G. Le infezioni associate ai cateteri venosi centrali: aspetti diagnostico-epidemiologiche e prospettive di prevenzione. 31° Congresso Nazionale Società Italiana di Microbiologia, pp. 122. **2003**. Ottobre 19-22, Roma, Italy.
55.	**Francolini I.**, Piozzi A., Ruggeri V. Sintesi e caratterizzazione di matrici polimeriche contenenti una combinazione di antibiotic**I.** XVI Convegno Italiano di Scienza e Tecnologie delle Macromolecole, pp. 301-302. **2003**. Settembre 22-25, Pisa, Italy.
56.	Crisante F., **Francolini I.**, Piozzi A. Preparazione e caratterizzazione di sistemi micro e nanostrutturati a rilascio di farmac**I.** XVI Convegno Italiano di Scienza e Tecnologie delle Macromolecole, pp. 283-284. **2003**. Settembre 22-25, Pisa, Italy.
57.	Bellusci M., **Francolini I.**, Piozzi A. Funzionalizzazione e caratterizzazione chimico-fisica di matrici polimeriche a carattere anfifilico. XVI Convegno Italiano di Scienza e Tecnologie delle Macromolecole, pp. 21-22. **2003**. Settembre 22-25, Pisa, Italy.
58.	Donelli G., **Francolini I.**, Di Rosa R., Piozzi A., Marconi W. Experimental methods to prevent microbial colonization of intravascular catheters and related infections. 103rd General Meeting American Society for Microbiology, pp. 387. **2003**. May 18-22, Washington, D.C., USA.
59.	**Francolini I.**, Di Rosa R, Piozzi A., Marconi W., Donelli G. Adsorption of antibiotics on functionalized polyurethanes as a strategy to prevent intravascular catheter-associated infections. 13th European Congress of Clinical Microbiology and Infectious Diseaseas, pp. 78. **2003**. 10-13 May, Glasgow, UK.
60.	**Francolini I.**, Di Rosa R., Piozzi A., Marconi W., Donelli G. Adsorbimento di rifampicina a matrici poliuretaniche quale modello sperimentale per la prevenzione di infezioni associate a dispositivi medici impiantabil**I.** VI Convegno nazionale: Le infezioni Batteriche e Micotiche, Attualità Terapeutiche, pp. 239. **2003**. 22-25 Gennaio, Napoli, Italy.
61.	**Francolini I.**, Di Rosa R., Piozzi A., Marconi W., Donelli G. In vitro experimental model sto prevent microbial colonization of intravascular catheters and related infections. 4th International Symposium Perspectives in Clinical Microbiology and Infections, pp. 15. **2003**. January 12-15, Venice, Italy.
62.	**Francolini I.**, Piozzi A., Marconi W., Di Rosa R., Donelli G. Attività antibatterica di poliuretani trattati con antibiotici: nuove prospettive di prevenzione delle infezioni associate ai cateteri vascolar**I.** 30° Congresso Nazionale della Società Italiana di Microbiologia, pp. 66. **2002**. 6-9 Ottobre, Catania,

	Italy.
63.	Marconi W., Di Rosa R., Occhiaperti L., Piozzi A., **Francolini I.** Prevention of catheter-related infections by catheter coating with an ansamycin and a beta-lactamic antibiotic. International Workshop on Advanced Frontiers in Polymer Science 2002, pp. 71. **2002**. September 11-13, Pisa, Italy.
64.	Donelli G., **Francolini I.**, Piozzi A., Di Rosa R., Marconi W. Adsorbimento "multistrato" di un antibiotico sperimentale beta-lattamico a matrici polimeriche diverse: un nuovo approccio per la prevenzione delle infezioni associate ai cateteri**.** Atti 22° Congresso Nazionale della Società Italiana di Chemioterapia, pp. 126. **2001**. 2-5 Dicembre, Firenze, Italy.
65.	Donelli G., **Francolini I.**, Piozzi A., Marconi W. Efficacia dell'adsorbimento di antibiotici per la prevenzione delle infezioni associate ai cateteri: nuovi approcci sperimental**I.** Atti del 29° Congresso Nazionale della Società Italiana di Microbiologia, pp. 99. **2001**. 7-10 Novembre, Genova, Italy.
66.	Marconi W., **Francolini I.**, Piozzi A. Preparazione di superfici polimeriche antibatteriche per la prevenzione di infezioni catetere-correlate. Atti del XV Convegno Italiano di Scienza e Tecnologia delle Macromolecole, Settembre **2001**, Trieste, Italy.

La sottoscritta Iolanda Francolini presenta questo curriculum firmato come dichiarazione sostitutiva di certificazione ai sensi del DPR 445/2000, ed è consapevole delle sanzioni penali nelle quali incorrerebbe per dichiarazioni mendaci. La sottoscritta autocertifica mediante l'apposizione di firma non soggetta ad autentica che le informazioni presenti nel curriculum vitae sono vere (dichiarazione di veridicità) e conformi agli originali in suo possesso. Tale curriculum è accompagnato da fotocopia di un documento di riconoscimento valido e dalle dichiarazioni di cui all'allegato C.

Roma, 30/01/2020

In fede

Dr.ssa Iolanda Francolini