

Pavia, 23 maggio 2024

All'Ufficio elettorale centrale presso il Servizio Legale Università degli Studi di Pavia Via Strada Nuova 65 Pavia

Oggetto: candidatura Senato Accademico triennio 2024-'27

La sottoscritta Bice Conti, professore ordinario SSD CHIM09 (che sarà convertito in GDS 03/CHEM08, SSD CHEM-08/A - Tecnologia, socioeconomia e normativa dei medicinali e dei prodotti per il benessere e per la salute) area CUN 03, afferente al Dipartimento di Scienze del Farmaco dell'Università di Pavia, con la presente si candida come rappresentante del personale docente in Senato Accademico per la macro area 01 per il triennio 2024 - 2027.

Si allega il curriculum vitae

In fede

Prof. Bice Conti

### PERSONAL INFORMATION

## **BICE CONTI**

University of Pavia Department of Drug Sciences Via Taramelli 12 27100 Pavia, Italy

+390382987378

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#### WORK EXPERIENCE Full professor SSD CHIM09 (Applied pharmaceutical chemistry and technology that will be converted in GDS 03/CHEM08, SSD CHEM-08/A - Technology, socioeconomics and regulation 2007 - current of medicines and products for well-being and health), Department of Drug Sciences of the University of Pavia, Italy. Coordinator of master course INBP (Industrial Nanobiotechnologies for Pharmaceuticals, LM8) 2023 - current Co-Coordinator of EMJMD Nanomed (European Master Joint Master Degree Nanomedicine for 2017 - current Drug Delivery), University of Paris (France), Pavia (Italy), Patras (Greece), Angers (France). Member of committee of the PhD course in "Biomolecular Sciences and Biotechnology" IUSS, 2017 - current Pavia Italy Member of scientific Committee of Interuniversity Consortium TEFARCO INNOVA. 2011 - 2016 Dean of Pharmacy and Pharmaceutical Chemistry and Technology (LM13) MSc courses of the 2009 - 2019University of Pavia. Coordinator of II level Master Course in Pharmaceutical Technology and regulatory activities, at the 2004 - 2010 University of Pavia, Italy. Member of committee of the PhD course "Chemistry and Pharmaceutical Technology", 2002 - 2016Department of Drug Sciences, University of Pavia, Italy. Member of the Italian Ministry of Health committee for the release of marketing authorization of 2002 - 2004veterinary products. Associate Professor SSD CHIM09 (Applied pharmaceutical chemistry and technology), Department 1995 - 2006of Pharmaceutical Chemistry, University of Pavia, Italy Associate Professor SSD CHIM09 (Applied pharmaceutical chemistry and technology), Department 1992 - 1995of Pharmaceutical Sciences, University of Catania, Italy Visiting scientist College of Pharmacy, University of Kentucky, Lexington, KY, USA 1987 - 1988Assistant professor SSD CHIM09 (Applied pharmaceutical chemistry and technology) at the 1984 - 1991Department of Drug Sciences of the University of Pavia, Italy Teaching to Medical and Pharmaceutical Biotechnology master courses of the University of Pavia Teaching to Chemical and Pharmaceutical Sciences and Industrial Innovation PhD course of the 2008 - current 2017 - current University of Pavia Teaching to Chemistry and Pharmaceutical Technology PhD course of the University of Pavia. 2012 - 2016Teaching to Pharmacy master courses of the University of Pavia. 2001 - 2012Teaching to Pharmaceutical Chemistry and Technology (CTF) master courses of the University of 1992 - 1995Teaching to Pharmaceutical Chemistry and Technology (CTF) master courses of the University of 1995 - current Pavia.

**EDUCATION AND TRAINING** 

	Bioc Goria
1981 – 1984	Post graduate specialization degree in Industrial Pharmacy, University of Pavia,
1901 – 1904	Italy. (EQF level 8)
1981	Qualified pharmacist
1976 - 1981	Degree in Pharmaceutical Chemistry and Technology (CTF), University of
1010 1001	Pavia, Italy (EQF level 7)
List of principal subjects covered	
or skills acquired	Pharmaceutical sciences, biopharmaceutics, pharmaceutical technology, applied pharmaceutical chemistry, regulatory affairs, polymer science applied to pharmaceutics, industrial pharmacy.
WORK ACTIVITIES	_
Organizational and	
management activities	
2024	Member of Organizing and Scientific committee of 1st SITELF PhD summer school (XXIII
2024	ADRITELF PhD school) "New delivery strategies for therapeutics and vaccines to fight emerging infectious diseases". University of Pavia, 2 – 4 September 2024
2022	Member of Organizing and Scientific committee of NANOMED Workshop" FROM BIOTECHNOLOGY TO NANOBIOTECHNOLOGY AND VACCINES", Pavia, 11-13 July 2022.
	https://www.nanomed2022.it/ The workshop is connected to EMJMD NANOMED
2022	Organizing EMJMD NANOMED summer school "Design of pre-dinical and dinical trials with nano-
2018	drug delivery systems, and critical assessment of the trial results", Pavia, 4 <sup>th</sup> – 11 <sup>th</sup> July 2022.  Member of organizing committee of 18th National School for Doctorate in Pharmaceutical
	Technology "INNOVATION IN LOCAL DRUG DELIVERY", Como, 25-27 September 2018. The
	doctorate school was sponsored by CARIPLO ( grant scuole alta formazione).
2016 – 2020	Founder and Board of Directors member of Polymerix Ltd, academic spin-off of the University of
0045	Pavia, PTS, Viale Taramelli 1, 27100 Pavia, Italy. Annula budget 40000 €
2015 – current	<b>Member of the scientific committees</b> of annual Simposio AFI, from 55 <sup>th</sup> to 63rd (2024) Edition
2014 – 2016	President of Controlled Release Society Italian Chapter (CRS IT Chpt)
2014	Member of organizing and scientific committee of annual thematic workshop of CRS Italian Chpt,
	"Drug delivery systems: pharmacokinetic challenges and targeting strategies", Florence 6 – 8
2014	November 2014
2014	Member of scientific committee of 14th National School for Doctorate in Pharmaceutical Technology "STRATEGIE PER IL RILASCIO E DIREZIONAMENTO DI FARMACI AL SNC", Rende,
2012	24-26 September 2014. The doctorate school was sponsored by ADRITELF.
2013	<b>Member of organizing and scientific</b> committee of annual thematic workshop of CRS Italian Chpt, "Design and industrial development of advanced drug delivery systems", Pavia, 21 – 23 November 2013.
2013 – 2016	Member of steering board and secretary of ADRITELF (Associazione Italiana Docenti Ricercatori
	Tecnologia e Legislazione Farmaceutica)
2008 – 2023	Member of Controlled Release Society Italian Chapter (CRS IT Chpt) and member of steering board
2023 - current	Member of Controlled Release Society International and of CRS IT Chpt
2008 – current	Member of AFI scientifica (Associazione Farmaceutici Industria).
	Member of working party on Advanced therapies and biotechnological pharmaceutical products of AFI
2008 – current	<b>Member of SITELF</b> (Società Italiana Tecnologia e Legislazione Farmaceutica, ex ADRITELF Associazione Italiana Docenti Ricercatori Tecnologia e Legislazione Farmaceutica)
Editorial activity	
Current	Member of editorial committee of: "Journal of Drug Delivery Sciences and Technology (JDDST),"
	(Elsevier Publishing). https://www.scimagojr.com/journalsearch.php?q=22204&tip=sid
Current	Member of editorial committee of: "International Journal of Molecular Science" (MDPI
	Publishing) (ISSN 1422-0067; CODEN: IJMCFK; ISSN 1661-6596 for printed edition).
	https://www.scimagojr.com/journalsearch.php?q=25879&tip=sid
	Member of editorial committee of: "Recent Patents on Drug Delivery & Formulation" (Bentham
	Science publishing). https://www.scimagojr.com/journalsearch.php?q=11500153306&tip=sid
Current	Reviewer for: Journal of Controlled Release, AAPS Pharmaceutical Science and Technology,
	Pharmaceutics, Material Sciences and Engineering C, Reactive and Functional Polymers, International
	Journal of Pharmaceutics, International Journal of Molecular Sciences (IJMS), Journal of Drug Delivery
2020 - 2021	Science and Technology (JDDST).
2020 = 2021	Guest editor of International Journal of Molecular Sciences (MDPI Publishing, ISSN 1422-0067)
2022 - 2023	Special Issue "Challenges, Opportunities and Innovation in Local Drug Delivery".
2022 - 2023	Guest editor of Pharmaceutics (MDPI Publishing, ISSN: 1999–4923) Special Issue "Electrospun
	Fibers: Advancement in Drug Delivery, Control Release, and Tissue Regeneration".

# Invited presentations (Last 3 years)

XXIII ADRITELF Symposium Trieste, 11-13 september 2023

B. Conti, Department of Drug Sciences, University of Pavia, "Electrospun nanofiber matrices: a platform for soft tissue repair, regeneration and drug delivery"

#### Virtual Pharm Sci Conference 2021, 7-9 September 2021

APS PharmSci Meeting, Emerging Technologies Focus Group, B. Conti Department of Drug Sciences, University of Pavia, "Microfluidics as emerging technique in manufacturing polymer nanoparticles" 9 September 2021, 14.45 – 15.30.

105° Congresso Nazionale SIO (Società Italiana di Otorinlaringologia e Chirurgia Cervico Facciale

RELAZIONE UFFICIALE "Patologia infettiva emergente e riemergente in ORL", B.Conti, Department of Drug Sciences, University of Pavia, "WHAT IS THE FUTURE FOR ANTIBIOTIC TREATMENT? Antibiotic Treatment and Nanomedicine. 16 May, 16 – 16.20.

#### Napoli 16 - 19 Maggio 2018

Joint meeting EPNOE (European Polysaccharides network of excellence) and CRS (Controlled Release Society) It Chpt B.Conti Department of Drug Sciences, University of Pavia, "Polysaccharides-based NANO drug delivery systems".

Rome, 14 June 2018 Grants (Last 5 years)

2022 - 2026 Immuno-HUB - Immunoterapia: cura e prevenzione di malattie infettive e tumorali (codice progetto F13C22001110001 - T4-CN-02). Amount granted to the research unit 110000 €.

2022 - 2025

PNNR-PE13-INFACT - One Health Basic and Translational Research Actions addressing Unmet Needs on Emerging Infectious Diseases, Amount granted to the research unit 262000 €.

2022 – 2026 NANOREMEDI - 101072645 - GAP-101072645 H2020 HORIZON-MSCA-2021-DN-01, proposal # 101072645 Proposal Title: Functional Nanoscaffolds for Regenerative Medicine. Amount granted to the research unit 518000 €.

**Project Ricerca Corrente 2021**, grant #08053921, "3D-Hybrid Engineered Tubular Bioscaffold for Esophageal Tissue Regeneration: from in vitro to in vivo validation" IRCCS Polidinico S.Matteo Pavia, Italy, , B.Conti research unit P.I., M.Benazzo project P.I.. Amount granted 150000 €

Project Hub Regione Lombardia "Digital Smart Fluidics" DSF, B. Conti research unit member. F.Auricchio P.I.. Amount granted 2000000 €

**Project Ricerca Corrente 2017** grant #12835 "An hybrid approach to the repair of esophageal defects: from bio scaffolds engineering to in vivo validation in the porcine model" IRCCS Policlinico S.Matteo. Pavia, Italy, B.Conti research unit P.I., M.Benazzo project P.I.. Amount granted: 158000 €

#### Patents

2021

2023

2021 - 2023

2020 - 2022

2017 - 2020

3D-PATTERNED FIBER MATERIAL FOR THE TOPICAL DELIVERY OF NUCLEIC ACID AND THE PROCESS FOR ITS PREPARATION. R.Dorati, B.Conti, I.Genta PCT/IB2020/059267.

METODO PER LA PRODUZIONE DI UN TESSUTO A MEMORIA DI FORMA E USI RELATIVI. Bice Conti, Ida Genta, Rossella Dorati, Marco Benazzo, Silvia Pisani, Maria Antonietta Avanzini. Italian patent No. 102021000019256 submitted 20/07/2021, filed 04/09/2023 Brevetto per invenzione industriale n. 102021000019256.

METHOD FOR THE PRODUCTION OF A SHAPE MEMORY TISSUE AND RELATIVE USES Bice Conti, Ida Genta, Rossella Dorati, Marco Benazzo, Silvia Pisani, Maria Antonietta Avanzini. PCT/1B2022/056647, WO2023/0023722A1.

#### Statement of Research Interests

Bice Conti research activities involve design, preparation, characterization, validation of conceptually innovative micro-nano-drug delivery systems to improve stability and bioavailability of drugs; local drug delivery (i.e. to lungs). Bice Conti is leader of Pharmaceutical Technology and Law (PTL) laboratory, a research group of about 12 people including associate professors, assistant professors, postdocs and PhD students.

The research team is deeply involved for several years in drug delivery formulation studies, namely pharmaceutical nanotechnology, also combining drug delivery with tissue regeneration purposes. The scientific research exploits innovative and advantageous opportunities offered by polymers focusing, but not exclusively, on biodegradable biocompatible synthetic polymers, i.e. polyesters and derivatives, and new peptide based nanomaterials.

In summary, the scientific research focuses on evaluation and discovery of new therapeutic solutions through nano-objects and scaffolds for wound healing and tissue regeneration and translate academic discoveries into

innovative pharmaceuticals and medical devices to improve therapies, patient compliance and ultimately patient health.

#### **Publications**

total number of publications in peer-review journals: 188

total Impact Factor (IF) (average IF/paper): XX

total number of citations: 5252

H index (Scopus): 41. https://www.scopus.com/authid/detail.uri?authorld=7005621694

Scopus Author ID: 7005621694

Bice Conti ORCID: https://orcid.org/0000-0002-0034-2815

#### List of selected publications

The following publications have been selected as representatives:

E. Chiesa, A. Caimi, M. Bellotti, A. Giglio, **B.Conti,** R. Dorati, F. Auricchio, I.Genta, Effect of Micromixer Design on Lipid Nanocarriers Manufacturing for the Delivery of Proteins and Nucleic Acids. *Pharmaceutics* **2024**, *16*, 507. <a href="https://doi.org/10.3390/pharmaceutics16040507">https://doi.org/10.3390/pharmaceutics16040507</a> IF 6.525

S. Pisani , D.Di Martino, S. Cerri, I. Genta, R. Dorati, G. Bertino, M.Benazzo, **B. Conti.** Investigation and Comparison of Active and Passive Encapsulation Methods for Loading Proteins into Liposomes. *Int. J. Mol. Sci.* **2023**, *24*, 13542. https://doi.org/10.3390/jims241713542 JF 5.6

S. Pisani, V. Calcaterra, S.Croce, R.Dorati, G.Bruni, I.Genta, A.Avanzini, M.Benazzo, G. Pelizzo, **B.Conti**, Shape memory engineered scaffold (SMES) for potential repair of neural tube defects, Reactive and Functional Polymers, **2022**, 173, 105223, <a href="https://doi.org/10.1016/j.reactfunctpolym.2022.105223">https://doi.org/10.1016/j.reactfunctpolym.2022.105223</a> IF 4.966

M. Rosalia, P. Ravipati, P. Grisoli, R. Dorati, I. Genta, E. Chiesa, G. Bruni, **B. Conti.**. Tobramycin Supplemented Small-Diameter Vascular Grafts for Local Antibiotic Delivery: A Preliminary Formulation Study. International Journal of Molecular Sciences, **2021**, 22, no. 24: 13557. https://doi.org/10.3390/ijms222413557, I.F. 4.556

R. Dorati, E.Chiesa, M. Rosalia, S. Pisani, I.Genta, G. Bruni, T. Modena, **B. Conti**.. Tubular Electrospun Vancomycin-Loaded Vascular Grafts: Formulation Study and Physicochemical Characterization *Polymers* 2021, 13, no. 13: 2073. https://doi.org/10.3390/polym13132073. **I.F. 4.329** 

C. E. Mariotti, L. Ramos-Rivera, **B. Conti**, A. R. Boccaccini Zein-Based Electrospun Fibers Containing Bioactive Glass with Antibacterial Capabilities. Macromol Biosci. **2020** Jul;20(7):e2000059. doi: 10.1002/mabi.202000059. Epub 2020 May 25. PMID: 32449606, I.F. 4.979

S. Pisani, R. Dorati, E. Chiesa, I. Genta, T. Modena, G.Bruni, P.Grisoli, B. Conti. "Release Profile of Gentamicin Sulfate from Polylactide-co-Polycaprolactone Electrospun Nanofiber Matrices" Pharmaceutics 2019., 11,4,161. https://doi.org/10.3390/pharmaceutics11040161. I.F. 6.321

R. Dorati, A. DeTrizio, M. Spalla, R. Migliavacca, L. Pagani, S. Pisani, E. Chiesa, **B. Conti**, Tiziana Modena, and Ida Genta. Gentamicin Sulfate PEG-PLGA/PLGA-H Nanoparticles: Screening Design and Antimicrobial Effect Evaluation toward Clinic Bacterial Isolates *Nanomaterials* 2018, 8, 1: 37. <a href="https://doi.org/10.3390/nano8010037.1.F">https://doi.org/10.3390/nano8010037.1.F</a>, 5,346

A. De Trizio, P. Srisuk, R.R. Costa, A. G. Fraga, T. Modena, I. Genta, R. Dorati, J. Pedrosa, **B. Conti**, Vi. M. Correlo, R. L. Reis, 2017. Natural based eumelanin nanoparticles functionalization and preliminary evaluation as carrier for gentamicin, Reactive and Functional Polymers, 114, 38-48, ISSN 1381-5148, <a href="https://doi.org/10.1016/j.reactfunctpolym.2017.03.004.1.F.3.975">https://doi.org/10.1016/j.reactfunctpolym.2017.03.004.1.F.3.975</a>

R. Dorati, A. DeTrizio, T. Modena, **B. Conti**, F. Benazzo, G. Gastaldi, I. Genta. Biodegradable Scaffolds for Bone Regeneration Combined with Drug-Delivery Systems in Osteomyelitis Therapy. Pharmaceuticals **2017**,10, 4: 96, <a href="https://doi.org/10.3390/ph10040096.1.F">https://doi.org/10.3390/ph10040096.1.F</a>, 5.68

R. Dorati, A. DeTrizio, I. Genta, P. Grisoli, A. Merelli, C. Tomasi, **B. Conti**, An experimental design approach to the preparation of pegylated polylactide-co-glicolide gentamicin loaded microparticles for local antibiotic delivery, Materials Science and Engineering: C, **2016**, 58, 909-917, <a href="https://doi.org/10.1016/j.msec.2015.09.053">https://doi.org/10.1016/j.msec.2015.09.053</a>. I.F. 7.328

R.Dorati, A. De Trizio, I. Genta, A. Merelli, T. Modena, **B. Conti.** Formulation and in vitro characterization of a composite biodegradable scaffold as antibiotic delivery system and regenerative device for bone. Journal of Drug Delivery Science and Technology, 2016, 35, 124-133, <a href="https://www.sciencedirect.com/science/article/pii/S1773224716300223.1.F.3.981">https://www.sciencedirect.com/science/article/pii/S1773224716300223.1.F.3.981</a>

R. Dorati, C. Colonna, I. Genta, A. De Trizio, T. Modena, H. Klöss, **B. Conti**. In vitro characterization of an injectable In situ forming composite scaffold for bone reconstruction, Polymer Degradation and Stability, 2015 119, 151-158, ISSN 0141-3910, https://www.sciencedirect.com/science/article/pii/S014139101500169X, I.F 4.63

PERSONAL SKILLS

Sense of responsibility, motivation, curiosity.

Mother tongue(s)

Italian

Other language(s) English C1

Other skills Knowledge and competences on Regulatory framework related to drug products marketing authorization (MA)

procedures, CTD, drug product quality evaluation (CTD, module 3). Know how in biopolymer science applied to the

pharmaceutical field.

According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV.

Pavia, 23/05/2024

Bice Conti

