
PERSONAL INFORMATION

Name: Francesco Imperi

Date of birth: 31/10/1979

Nationality: Italian

Researcher unique identifiers:

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EDUCATION

2004 Master's degree in Biological Sciences.

2008 PhD in Biology.

CURRENT POSITION

2018 – present Associate Professor of Microbiology, Department of Science, University of Roma Tre, Rome, Italy.

PREVIOUS POSITIONS

2004 – 2007 PhD Fellow, Laboratory of Microbiology, Department of Biology, University of Roma Tre, Rome, Italy.

2008 – 2010 Postdoctoral Fellow, Laboratory of Microbiology, Department of Biology, University of Roma Tre, Rome, Italy.

2009 – 2010 EMBO and FEMS Short Term Fellowships, Centre for Biomolecular Sciences, University of Nottingham, UK.

2010 – 2018 Researcher (Assistant Professor) in Microbiology, Department of Biology and Biotechnology Charles Darwin (BBCD), Sapienza University of Rome, Italy.

MAIN RESEARCH TOPICS

- physiology of bacterial response to environmental stresses.
- mechanisms of transmembrane transport and signalling in Gram-negative bacteria;
- cell-envelope biogenesis and mechanisms of antibiotic resistance in *Pseudomonas aeruginosa*;
- identification and characterization of new essential bacterial genes;
- identification and development of anti-virulence drugs and antibiotic adjuvants;
- functional and comparative genomics in bacteria;
- characterization of complex microbial communities by molecular techniques.

TEACHING ACTIVITY

2009 – 2011 Fundamentals of Microbiology for the Degree Course in “Optics and Optometry”, University of Roma Tre, Rome, Italy.

2011 – 2018 General Microbiology for the Degree Course in “Agricultural and Industrial Biotechnologies”, Sapienza University of Rome, Italy.

2015 – 2016 Applied Microbiology for the Master's Degree Course in “Science and Technology for the Quality and Enhancement of Food Products”, Sapienza University of Rome, Italy.

2016 – 2018 Microbiology for the Degree Course in “Bioinformatics”, Sapienza University of Rome, Italy.

2018 – present Genetics of Microorganisms for the Master's Degree Course in “Biology for Molecular, Cellular and Physiopathological Research”, University of Roma Tre, Rome, Italy.

2019 – present General Microbiology for the Degree Course in “Biology”, University of Roma Tre, Rome, Italy.

2021 – present General and Environmental Microbiology for the Degree Course in “Sciences for the protection of nature and environmental sustainability”, University of Roma Tre, Rome, Italy.

2023 – present Microbiology for the Degree Course in “Pharmacy”, University of Roma Tre, Rome, Italy.

EDITOR AND REVIEWER ACTIVITY

- 2020 – present Member of the Editorial Board of Antibiotics.
- 2016 – 2025 Member of the Editorial Board of Scientific Reports.
- 2017 – 2021 Member of the Editorial Board of BMC Microbiology.
- 2010 – present Reviewer for Nature Communications, mBio, Molecular Microbiology, Journal of Antimicrobial Chemotherapy, Journal of Infectious Diseases, Antimicrobial Agents and Chemotherapy, Applied and Environmental Microbiology, Journal of Bacteriology, PLoS ONE, Scientific Reports, Chemical Biology & Drug Design, The FEBS Journal, Pathogens and Disease, Journal of Applied Microbiology, Letter in Applied Microbiology, Antibiotics, Virulence, FEMS Microbiology Letters, Frontiers in Microbiology, BMC Research Notes, mSpectrum, mSystems, Communications Biology, iScience, Microbiological Research, and others.
- 2012 – present Reviewer for scientific projects founded by the Czech Science Foundation (Czech Republic), the Medical Research Council and the Biotechnology and Biological Sciences Research Council (UK), the Agence Nationale de la Recherche (France), the Swiss National Science Foundation (Switzerland), and the Innovation and Technology Commission (ITC) of the Hong Kong Special Administrative Region Government (HKSARG).

PROJECTS (AS P.I. OR COORDINATOR OF RESEARCH UNIT)

- Italian Cystic Fibrosis Research Foundation. Title: Targeting the diadenosine tetraphosphate hydrolase ApaH to suppress *Pseudomonas aeruginosa* pathogenicity in cystic fibrosis. Time period: September 2025 – August 2026. Role: P.I.
- Italian Ministry of Education, University and Research – PRIN 2020. Title: Escaping the ESKAPes: integrated pipelines for new antibacterial drugs. Time period: 2022 – 2025 (36 months). Role: P.I.
- Italian Ministry of Education, University and Research – PRIN 2017. Title: Next-generation antibacterials: new targets for old drugs and new drugs for old targets. Time period: July 2019 – September 2023. Role: coordinator of research unit.
- Lazio Innova – Regione Lazio. Title: Progettazione razionale di molecole xenobiotiche attive contro batteri patogeni resistenti agli antibiotici - XENOBAC. Time period: May 2021 – April 2023. Role: P.I.
- Lazio Innova – Regione Lazio. Title: Riposizionamento di farmaci antimetaboliti per fronteggiare l'antibiotico-resistenza - ANTIMET. Time period: November 2018 – December 2020. Role: coordinator of research unit.
- Italian Cystic Fibrosis Research Foundation. Title: Pharmacological inhibition of colistin resistance in gram-negative cystic fibrosis pathogens. Time period: September 2019 – August 2021. Role: coordinator of research unit.
- Italian Cystic Fibrosis Research Foundation. Title: Anti-virulence therapy against *Pseudomonas aeruginosa*: identification of anti-biofilm drugs and development of inhalable Niclosamide and Flucytosine formulations. Time period: September 2013 – August 2015. Role: coordinator of research unit.
- Italian Cystic Fibrosis Research Foundation. Title: Identification and characterization of novel drugs suppressing *Pseudomonas aeruginosa* virulence in chronic infection. Time period: September 2011 – August 2012. Role: coordinator of research unit.
- Istituto Pasteur Italia. Title: Functional characterization and pharmacological inhibition of colistin resistance in *Pseudomonas aeruginosa*. Time period: January 2018 – December 2019. Role: P.I.
- Istituto Pasteur Italia. Title: Exploring the *Pseudomonas aeruginosa* cell envelope as a source of novel protein drug targets. Time period: January 2013 – November 2016. Role: P.I.
- Sapienza University of Rome, Research Projects 2017. Title: *In vitro* and *in vivo* characterization of a novel antimetabolite drug active against the human pathogen *Staphylococcus aureus*. Time period: 1 year (2018). Role: P.I.
- Sapienza University of Rome, Research Projects 2015. Title: Deciphering the anti-virulence activity of the antimycotic drug flucytosine in the opportunistic bacterial pathogen *Pseudomonas aeruginosa*. Time period: 1 year (2016). Role: P.I.
- Sapienza University of Rome, Research Projects 2013. Title: Deciphering the regulatory link between biofilm formation and iron starvation in the human pathogen *Pseudomonas aeruginosa*. Time period: 1 year (2014). Role: P.I.

AWARDS

- Best PhD Thesis Award 2008 in Microbiology from the Italian Society of General Microbiology and Microbial Biotechnology (SIMGBM)
- Best Poster Award at the FEMS Microbiology Congress 2011, Geneva, Switzerland.

PUBLICATIONS AND TRACK RECORD

Co-author of 91 articles in peer-reviewed ISI journals, 2 book chapters and 4 patents.

No. of citations (from Scopus): 4905

H-index (from Scopus): 37

PAPERS IN PEER-REVIEWED ISI JOURNALS

1. Cammarone S, Pastore V, Ryzhuk M, Cristoferi M, Speroni A, **Imperi F**, Corinti D, Bonaccorsi di Patti MC, Botta B, Quaglio D, Mori M, Ascenzioni F, Ghirga F. Exploration of the aromatic abietane diterpenoid scaffold in the development of ArnT-mediated colistin resistance inhibitors. *RSC Adv.* 2026 Feb 25;16(12):11061-11075. doi: 10.1039/d5ra09142j.
2. Sposato D, Molesini G, Riccardi C, Mercolino J, Torrini L, Varone I, Cipolletti M, Acconcia F, Rampioni G, Leoni L, Visca P, Fondi M, **Imperi F**. Activation of the envelope stress-responsive two-component system AmgRS compensates for depletion of the essential lipoprotein signal peptidase LspA in *Pseudomonas aeruginosa*. *Curr Res Microb Sci.* 2026 Jan 31;10:100565. doi: 10.1016/j.crmicr.2026.100565.
3. Visaggio D, Lucidi M, Spagnoli C, Ciccone I, **Imperi F**, Visca P. ESKAPE Gram-negative bacteria escape culture-based detection upon desiccation on abiotic surfaces. *Microbiol Spectr.* 2026 Mar 3;14(3):e0335725. doi: 10.1128/spectrum.03357-25.
4. Nieto Noblecia J, Bellis NF, Antichi CA, Aminian S, Forti F, Falchi FA, Sposato D, **Imperi F**, Cingolani G, Briani F. *Pseudomonas aeruginosa* DEV phage exploits the essential LptD outer membrane protein as receptor for adsorption. *mBio.* 2026 Feb 11;17(2):e0356125. doi: 10.1128/mbio.03561-25.
5. Sposato D, Wang Y, Zhang X, Rossi L, De Chiara S, Di Lorenzo F, Leoni L, Rampioni G, Visca P, Bolla JR, **Imperi F**. The *Pseudomonas aeruginosa* DedA protein PA4029 is an undecaprenyl phosphate flippase important for polymyxin resistance. *mBio.* 2026 Feb 11;17(2):e0240825. doi: 10.1128/mbio.02408-25.
6. Fiorentino F, Cervoni M, Wang Y, Urner LH, Sauer JB, Tran A, Corey RA, Rotili D, Mai A, Stansfeld PJ, **Imperi F**, Yu EW, Su CC, Robinson CV, Bolla JR. Structural snapshots of *Pseudomonas aeruginosa* LptB2FG and LptB2FGC reveal insights into lipopolysaccharide recognition and transport. *Nat Commun.* 2025 Dec 17;16(1):11384. doi: 10.1038/s41467-025-66182-0.
7. Sposato D, Pederzoli C, Bufano M, Sciò P, Rossi L, Leoni L, Rampioni G, Visca P, Coluccia A, **Imperi F**. Structure-function relationship of the *Pseudomonas aeruginosa* AsmA-like proteins YhdP and YdbH involved in outer membrane biogenesis. *Protein Sci.* 2025 Oct;34(10):e70227. doi: 10.1002/pro.70227.
8. Cervoni M, Ferriero AM, Lo Sciuto A, Guidi F, Babić Jordamović N, Piazza S, Jousson O, Esposito A, **Imperi F**. The Genetic Background and Culture Medium Only Marginally Affect the In Vitro Evolution of *Pseudomonas aeruginosa* Toward Colistin Resistance. *Antibiotics (Basel).* 2025 Jun 13;14(6):601. doi: 10.3390/antibiotics14060601.
9. Lucidi M, Capecchi G, Spagnoli C, Basile A, Artuso I, Persichetti L, Fardelli E, Capellini G, Visaggio D, **Imperi F**, Rampioni G, Leoni L, Visca P. The response to desiccation in *Acinetobacter baumannii*. *Virulence.* 2025 Dec;16(1):2490209. doi: 10.1080/21505594.2025.2490209.
10. Pastore V, Frison J, Pesce C, Ryzhuk M, Garofalo M, Cristoferi M, Cammarone S, Fabrizio G, Bonaccorsi Di Patti MC, Quaglio D, Ghirga F, **Imperi F**, Mori M, Caliceti P, Botta B, Ascenzioni F,

- Salmaso S. Development of nanovehicles for co-delivery of colistin and ArnT inhibitors. *Int J Pharm.* 2025 Apr 30;675:125515. doi: 10.1016/j.ijpharm.2025.125515.
11. Sciò P, Scoffone VC, Parisi A, Bufano M, Caneva M, Trespidi G, Irudal S, Barbieri G, Cariani L, Orena BS, Daccò V, **Imperi F**, Buroni S, Coluccia A. Identification of a New FtsZ Inhibitor by Virtual Screening, Mechanistic Insights, and Structure-Activity Relationship Analyses. *ACS Infect Dis.* 2025 Apr 11;11(4):998-1007. doi: 10.1021/acsinfecdis.4c01045.
 12. Basile A, Riggio FP, Tescari M, Chebbi A, Sodo A, Bartoli F, **Imperi F**, Caneva G, Visca P. Metagenome-resolved functional traits of Rubrobacter species implicated in rosy discoloration of ancient frescoes in two Georgian Cathedrals. *Sci Total Environ.* 2025 Jan 1;958:178135. doi: 10.1016/j.scitotenv.2024.178135.
 13. Lo Sciuto A, D'Angelo F, Spinnato MC, Garcia PS, Genah S, Matteo C, Séchet E, Banin E, Barras F, **Imperi F**. A molecular comparison of [Fe-S] cluster-based homeostasis in *Escherichia coli* and *Pseudomonas aeruginosa*. *mBio.* 2024 Nov 13;15(11):e0120624. doi: 10.1128/mbio.01206-24.
 14. Cervoni M, Sposato D, Ferri G, Bähre H, Leoni L, Rampioni G, Visca P, Recchiuti A, **Imperi F**. The diadenosine tetraphosphate hydrolase ApaH contributes to *Pseudomonas aeruginosa* pathogenicity. *PLoS Pathog.* 2024 Aug 19;20(8):e1012486. doi: 10.1371/journal.ppat.1012486.
 15. Caruso L, Mellini M, Catalano Gonzaga O, Astegno A, Forte E, Di Matteo A, Giuffrè A, Visca P, **Imperi F**, Leoni L, Rampioni G. Hydrogen sulfide production does not affect antibiotic resistance in *Pseudomonas aeruginosa*. *Antimicrob Agents Chemother.* 2024 Apr 3;68(4):e0007524. doi: 10.1128/aac.00075-24.
 16. Sposato D, Mercolino J, Torrini L, Sperandeo P, Lucidi M, Alegiani R, Varone I, Molesini G, Leoni L, Rampioni G, Visca P, **Imperi F**. Redundant essentiality of AsmA-like proteins in *Pseudomonas aeruginosa*. *mSphere.* 2024 Feb 28;9(2):e0067723.
 17. Lucidi M, **Imperi F**, Artuso I, Capecchi G, Spagnoli C, Visaggio D, Rampioni G, Leoni L, Visca P. Phage-mediated colistin resistance in *Acinetobacter baumannii*. *Drug Resist Updat.* 2024 Mar;73:101061.
 18. Lucidi M, Visaggio D, Migliaccio A, Capecchi G, Visca P, **Imperi F**, Zarrilli R. Pathogenicity and virulence of *Acinetobacter baumannii*: Factors contributing to the fitness in healthcare settings and the infected host. *Virulence.* 2024 Dec;15(1):2289769.
 19. Mellini M, Letizia M, Caruso L, Guiducci A, Meneghini C, Heeb S, Williams P, Cámara M, Visca P, **Imperi F**, Leoni L, Rampioni G. RsaL-driven negative regulation promotes heterogeneity in *Pseudomonas aeruginosa* quorum sensing. *mBio.* 2023 Oct 16;14(6):e0203923.
 20. Giallonardi G, Letizia M, Mellini M, Frangipani E, Halliday N, Heeb S, Cámara M, Visca P, **Imperi F**, Leoni L, Williams P, Rampioni G. Alkyl-quinolone-dependent quorum sensing controls prophage-mediated autolysis in *Pseudomonas aeruginosa* colony biofilms. *Front Cell Infect Microbiol.* 2023 May 26;13:1183681. doi: 10.3389/fcimb.2023.1183681.
 21. Cervoni M, Sposato D, Lo Sciuto A, **Imperi F**. Regulatory Landscape of the *Pseudomonas aeruginosa* Phosphoethanolamine Transferase Gene *eptA* in the Context of Colistin Resistance. *Antibiotics (Basel).* 2023 Jan 18;12(2):200. doi: 10.3390/antibiotics12020200.
 22. Collalto D, Fortuna A, Visca P, **Imperi F**, Rampioni G, Leoni L. Synergistic Activity of Colistin in Combination with Clofoctol against Colistin Resistant Gram-Negative Pathogens. *Microbiol Spectr.* 2023 Feb 21:e0427522. doi: 10.1128/spectrum.04275-22.
 23. Letizia M, Mellini M, Fortuna A, Visca P, **Imperi F**, Leoni L, Rampioni G. PqsE Expands and Differentially Modulates the RhlR Quorum Sensing Regulon in *Pseudomonas aeruginosa*. *Microbiol Spectr.* 2022 Jun 29;10(3):e0096122. doi: 10.1128/spectrum.00961-22.
 24. Collalto D, Giallonardi G, Fortuna A, Meneghini C, Fiscarelli E, Visca P, **Imperi F**, Rampioni G, Leoni L. In vitro Activity of Antivirulence Drugs Targeting the *las* or *pqs* Quorum Sensing Against Cystic Fibrosis *Pseudomonas aeruginosa* Isolates. *Front Microbiol.* 2022 Apr 25;13:845231. doi: 10.3389/fmicb.2022.845231.

25. Lo Sciuto A, Spinnato MC, Pasqua M, **Imperi F**. Generation of Stable and Unmarked Conditional Mutants in *Pseudomonas aeruginosa*. *Methods Mol Biol*. 2022;2548:21-35. doi: 10.1007/978-1-0716-2581-1_2.
26. Mercolino J, Lo Sciuto A, Spinnato MC, Rampioni G, **Imperi F**. RecA and Specialized Error-Prone DNA Polymerases Are Not Required for Mutagenesis and Antibiotic Resistance Induced by Fluoroquinolones in *Pseudomonas aeruginosa*. *Antibiotics (Basel)*. 2022 Feb 28;11(3):325. doi: 10.3390/antibiotics11030325.
27. Spinnato MC, Lo Sciuto A, Mercolino J, Lucidi M, Leoni L, Rampioni G, Visca P, **Imperi F**. Effect of a Defective Clamp Loader Complex of DNA Polymerase III on Growth and SOS Response in *Pseudomonas aeruginosa*. *Microorganisms*. 2022 Feb 12;10(2):423. doi: 10.3390/microorganisms10020423.
28. Visaggio D, Frangipani E, Hijazi S, Pirolo M, Leoni L, Rampioni G, **Imperi F**, Bernstein L, Sorrentino R, Ungaro F, Visca P. Variable Susceptibility to Gallium Compounds of Major Cystic Fibrosis Pathogens. *ACS Infect Dis*. 2021. doi: 10.1021/acinfecdis.1c00409.
29. Cervoni M, Lo Sciuto A, Bianchini C, Mancone C, **Imperi F**. Exogenous and Endogenous Phosphoethanolamine Transferases Differently Affect Colistin Resistance and Fitness in *Pseudomonas aeruginosa*. *Front Microbiol*. 2021;12:778968. doi: 10.3389/fmicb.2021.778968.
30. **Imperi F**, Chen W, Smani Y. Editorial: Antivirulence Drugs Against Bacterial Infections. *Front Microbiol*. 2021;12:690672. doi: 10.3389/fmicb.2021.690672.
31. Mellini M, Lucidi M, **Imperi F**, Visca P, Leoni L, Rampioni G. Generation of Genetic Tools for Gauging Multiple-Gene Expression at the Single-Cell Level. *Appl Environ Microbiol*. 2021;87(10):e02956-20. doi: 10.1128/AEM.02956-20.
32. Santorelli D, Rocchio S, Fata F, Silvestri I, Angelucci F, **Imperi F**, Marasco D, Diaferia C, Gigli L, Demitri N, Federici L, Di Matteo A, Travaglini-Allocatelli C. The folding and aggregation properties of a single KH-domain protein: Ribosome binding factor A (RbfA) from *Pseudomonas aeruginosa*. *Biochim Biophys Acta*. 2021;1865(2):129780.
33. Lagatolla C, Milic J, **Imperi F**, Cervoni M, Bressan R, Luzzati R, Di Bella S. Synergistic activity of fosfomycin and chloramphenicol against vancomycin-resistant *Enterococcus faecium* (VREfm) isolates from bloodstream infections. *Diagn Microbiol Infect Dis*. 2021;99(2):115241.
34. Scala R, Di Matteo A, Coluccia A, Lo Sciuto A, Federici L, Travaglini-Allocatelli C, Visca P, Silvestri R, **Imperi F**. Mutational analysis of the essential lipopolysaccharide-transport protein LptH of *Pseudomonas aeruginosa* to uncover critical oligomerization sites. *Sci Rep*. 2020;10(1):11276.
35. Quaglio D, Mangoni ML, Stefanelli R, Corradi S, Casciaro B, Vergine V, Lucantoni F, Cavinato L, Cammarone S, Loffredo MR, Cappiello F, Calcaterra A, Erazo S, Ghirga F, Mori M, **Imperi F**, Ascenzioni F, Botta B. ent-Beyerane Diterpenes as a Key Platform for the Development of ArnT-Mediated Colistin Resistance Inhibitors. *J Org Chem*. 2020;85(16):10891-10901.
36. Ghirga F, Stefanelli R, Cavinato L, Lo Sciuto A, Corradi S, Quaglio D, Calcaterra A, Casciaro B, Loffredo MR, Cappiello F, Morelli P, Antonelli A, Rossolini GM, Mangoni M, Mancone C, Botta B, Mori M, Ascenzioni F, **Imperi F**. A novel colistin adjuvant identified by virtual screening for ArnT inhibitors. *J Antimicrob Chemother*. 2020;75(9):2564-2572.
37. Quaglio D, Corradi S, Erazo S, Vergine V, Berardozi S, Sciubba F, Cappiello F, Crestoni ME, Ascenzioni F, **Imperi F**, Delle Monache F, Mori M, Loffredo MR, Ghirga F, Casciaro B, Botta B, Mangoni ML. Structural Elucidation and Antimicrobial Characterization of Novel Diterpenoids from *Fabiana densa* var. *ramulosa*. *ACS Med Chem Lett*. 2020;11(5):760-765.
38. Lo Sciuto A, Cervoni M, Stefanelli R, Mancone C, **Imperi F**. Effect of lipid A aminoarabinylation on *Pseudomonas aeruginosa* colistin resistance and fitness. *Int J Antimicrob Agents*. 2020;55(5):105957.
39. Lo Sciuto A, Cervoni M, Stefanelli R, Spinnato MC, Di Giamberardino A, Mancone C, **Imperi F**. Genetic Basis and Physiological Effects of Lipid A Hydroxylation in *Pseudomonas aeruginosa* PAO1. *Pathogens*. 2019;8(4):291.

40. Lucidi M, Visaggio D, Prencipe E, **Imperi F**, Rampioni G, Cincotti G, Leoni L, Visca P. New Shuttle Vectors for Real-Time Gene Expression Analysis in Multidrug-Resistant *Acinetobacter* Species: *In Vitro* and *In Vivo* Responses to Environmental Stressors. *Appl Environ Microbiol.* 2019;85(18):e01334-19.
41. Rocchio S, Santorelli D, Rinaldo S, Franceschini M, Malatesta F, **Imperi F**, Federici L, Travaglini-Allocatelli C, Di Matteo A. Structural and functional investigation of the Small Ribosomal Subunit Biogenesis GTPase A (RsgA) from *Pseudomonas aeruginosa*. *FEBS J.* 2019;286(21):4245-4260.
42. **Imperi F**, Fiscarelli EV, Visaggio D, Leoni L, Visca P. Activity and Impact on Resistance Development of Two Antivirulence Fluoropyrimidine Drugs in *Pseudomonas aeruginosa*. *Front Cell Infect Microbiol.* 2019;9:49.
43. Visca P, Pisa F, **Imperi F**. The antimetabolite 3-bromopyruvate selectively inhibits *Staphylococcus aureus*. *Int J Antimicrob Agents.* 2019;53(4):449-455.
44. Lo Sciuto A, Martorana AM, Fernández-Piñar R, Mancone C, Polissi A, **Imperi F**. *Pseudomonas aeruginosa* LptE is crucial for LptD assembly, cell envelope integrity, antibiotic resistance and virulence. *Virulence.* 2018;9(1):1718-1733.
45. Esposito EP, Cervoni M, Bernardo M, Crivaro V, Cuccurullo S, **Imperi F**, Zarrilli R. Molecular epidemiology and virulence profiles of colistin-resistant *Klebsiella pneumoniae* blood isolates from the Hospital Agency “Ospedale dei Colli”, Naples, Italy. *Front Microbiol.* 2018 Jul 16;9:1463.
46. Visca P, **Imperi F**. An essential transcriptional regulator: the case of *Pseudomonas aeruginosa* Fur. *Future Microbiol.* 2018 Jun 1;13:853-856.
47. Lo Sciuto A, **Imperi F**. Aminoarabinosylation of Lipid A Is Critical for the Development of Colistin Resistance in *Pseudomonas aeruginosa*. *Antimicrob Agents Chemother.* 2018 Feb 23;62(3).
48. Rampioni G, Pillai CR, Longo F, Bondi R, Baldelli V, Messina M, **Imperi F**, Visca P, Leoni L. Effect of efflux pump inhibition on *Pseudomonas aeruginosa* transcriptome and virulence. *Sci Rep.* 2017 Sep 12;7(1):11392.
49. Pasqua M, Visaggio D, Lo Sciuto A, Genah S, Banin E, Visca P, **Imperi F**. Ferric Uptake Regulator Fur Is Conditionally Essential in *Pseudomonas aeruginosa*. *J Bacteriol.* 2017 Oct 17;199(22).
50. Rampioni G, Visca P, Leoni L, Imperi F. Drug repurposing for antivirulence therapy against opportunistic bacterial pathogens. *Emerg Top Life Sci.* 2017 Apr 21;1(1):13-22. doi: 10.1042/ETLS20160018.
51. Costabile G, d'Angelo I, d'Emmanuele di Villa Bianca R, Mitidieri E, Pompili B, Del Porto P, Leoni L, Visca P, Miro A, Quaglia F, **Imperi F**, Sorrentino R, Ungaro F. Development of inhalable hyaluronan/mannitol composite dry powders for flucytosine repositioning in local therapy of lung infections. *J Control Release.* 2016 Sep 28;238:80-91.
52. Minandri F, **Imperi F**, Frangipani E, Bonchi C, Visaggio D, Facchini M, Pasquali P, Bragonzi A, Visca P. Role of Iron Uptake Systems in *Pseudomonas aeruginosa* Virulence and Airway Infection. *Infect Immun.* 2016 Jul 21;84(8):2324-35.
53. Fernández-Piñar R, Lo Sciuto A, Rossi A, Ranucci S, Bragonzi A, **Imperi F**. *In vitro* and *in vivo* screening for novel essential cell-envelope proteins in *Pseudomonas aeruginosa*. *Sci Rep.* 2015 Dec 1;5:17593.
54. Visaggio D, Pasqua M, Bonchi C, Kaefer V, Visca P, **Imperi F**. Cell aggregation promotes pyoverdine-dependent iron uptake and virulence in *Pseudomonas aeruginosa*. *Front Microbiol.* 2015 Aug 28;6:902.
55. Bonchi C, Frangipani E, **Imperi F**, Visca P. Pyoverdine and proteases affect the response of *Pseudomonas aeruginosa* to gallium in human serum. *Antimicrob Agents Chemother.* 2015 Sep;59(9):5641-6.
56. Costabile G, d'Angelo I, Rampioni G, Bondi R, Pompili B, Ascenzioni F, Mitidieri E, d'Emmanuele di Villa Bianca R, Sorrentino R, Miro A, Quaglia F, **Imperi F**, Leoni L, Ungaro F. Toward Repositioning Niclosamide for Antivirulence Therapy of *Pseudomonas aeruginosa* Lung Infections: Development of Inhalable Formulations through Nanosuspension Technology. *Mol Pharm.* 2015 Aug 3;12(8):2604-17.

57. Lo Sciuto A, Fernández-Piñar R, Bertuccini L, Iosi F, Superti F, **Imperi F**. The periplasmic protein TolB as a potential drug target in *Pseudomonas aeruginosa*. PLoS One. 2014 Aug 5;9(8):e103784.
58. Frangipani E, Bonchi C, Minandri F, **Imperi F**, Visca P. Pyochelin potentiates the inhibitory activity of gallium on *Pseudomonas aeruginosa*. Antimicrob Agents Chemother. 2014 Sep;58(9):5572-5.
59. Llamas MA, **Imperi F**, Visca P, Lamont IL. Cell-surface signaling in *Pseudomonas*: stress responses, iron transport, and pathogenicity. FEMS Microbiol Rev. 2014 Jul;38(4):569-97.
60. **Imperi F**, Leoni L, Visca P. Antivirulence activity of azithromycin in *Pseudomonas aeruginosa*. Front Microbiol. 2014 Apr 22;5:178.
61. Minandri F, Bonchi C, Frangipani E, **Imperi F**, Visca P. Promises and failures of gallium as an antibacterial agent. Future Microbiol. 2014;9(3):379-97.
62. Bonchi C, **Imperi F**, Minandri F, Visca P, Frangipani E. Repurposing of gallium-based drugs for antibacterial therapy. Biofactors. 2014 May-Jun;40(3):303-12.
63. **Imperi F**, Visca P. Subcellular localization of the pyoverdine biogenesis machinery of *Pseudomonas aeruginosa*: a membrane-associated "siderosome". FEBS Lett. 2013 Nov 1;587(21):3387-91.
64. Longo F, Rampioni G, Bondi R, **Imperi F**, Fimia GM, Visca P, Zennaro E, Leoni L. A new transcriptional repressor of the *Pseudomonas aeruginosa* quorum sensing receptor gene *lasR*. PLoS One. 2013 Jul 5;8(7):e69554.
65. Frangipani E, Visaggio D, Heeb S, Kaever V, Cámara M, Visca P, **Imperi F**. The Gac/Rsm and cyclic-di-GMP signalling networks coordinately regulate iron uptake in *Pseudomonas aeruginosa*. Environ Microbiol. 2014 Mar;16(3):676-88.
66. Visca P, Bonchi C, Minandri F, Frangipani E, **Imperi F**. The dual personality of iron chelators: growth inhibitors or promoters? Antimicrob Agents Chemother. 2013 May;57(5):2432-3.
67. **Imperi F**, Massai F, Facchini M, Frangipani E, Visaggio D, Leoni L, Bragonzi A, Visca P. Repurposing the antimycotic drug flucytosine for suppression of *Pseudomonas aeruginosa* pathogenicity. Proc Natl Acad Sci U S A. 2013 Apr 30;110(18):7458-63.
68. **Imperi F**, Massai F, Ramachandran Pillai C, Longo F, Zennaro E, Rampioni G, Visca P, Leoni L. New life for an old drug: the anthelmintic drug niclosamide inhibits *Pseudomonas aeruginosa* quorum sensing. Antimicrob Agents Chemother. 2013 Feb;57(2):996-1005.
69. Antunes LC, **Imperi F**, Minandri F, Visca P. In vitro and in vivo antimicrobial activities of gallium nitrate against multidrug-resistant *Acinetobacter baumannii*. Antimicrob Agents Chemother. 2012 Nov;56(11):5961-70.
70. **Imperi F**, Antunes LC, Blom J, Villa L, Iacono M, Visca P, Carattoli A. The genomics of *Acinetobacter baumannii*: insights into genome plasticity, antimicrobial resistance and pathogenicity. IUBMB Life. 2011 Dec;63(12):1068-74.
71. Antunes LC, **Imperi F**, Carattoli A, Visca P. Deciphering the multifactorial nature of *Acinetobacter baumannii* pathogenicity. PLoS One. 2011;6(8):e22674.
72. Lanini S, D'Arezzo S, Puro V, Martini L, **Imperi F**, Piselli P, Montanaro M, Paoletti S, Visca P, Ippolito G. Molecular epidemiology of a *Pseudomonas aeruginosa* hospital outbreak driven by a contaminated disinfectant-soap dispenser. PLoS One. 2011 Feb 16;6(2):e17064.
73. Massai F, **Imperi F**, Quattrucci S, Zennaro E, Visca P, Leoni L. A multitask biosensor for microvolumetric detection of N-3-oxo-dodecanoyl-homoserine lactone quorum sensing signal. Biosens Bioelectron. 2011 Apr 15;26(8):3444-9.
74. Pourcel C, Minandri F, Hauck Y, D'Arezzo S, **Imperi F**, Vergnaud G, Visca P. Identification of variable-number tandem-repeat (VNTR) sequences in *Acinetobacter baumannii* and interlaboratory validation of an optimized multiple-locus VNTR analysis typing scheme. J Clin Microbiol. 2011 Feb;49(2):539-48.
75. Antunes LC, **Imperi F**, Towner KJ, Visca P. Genome-assisted identification of putative iron-utilization genes in *Acinetobacter baumannii* and their distribution among a genotypically diverse collection of clinical isolates. Res Microbiol. 2011 Apr;162(3):279-84.

76. **Imperi F**, Tiburzi F, Fimia GM, Visca P. Transcriptional control of the pvdS iron starvation sigma factor gene by the master regulator of sulfur metabolism CysB in *Pseudomonas aeruginosa*. *Environ Microbiol.* 2010 Jun;12(6):1630-42.
77. **Imperi F**, Tiburzi F, Visca P. Molecular basis of pyoverdine siderophore recycling in *Pseudomonas aeruginosa*. *Proc Natl Acad Sci U S A.* 2009 Dec 1;106(48):20440-5.
78. **Imperi F**, Ciccocanti F, Perdomo AB, Tiburzi F, Mancone C, Alonzi T, Ascenzi P, Piacentini M, Visca P, Fimia GM. Analysis of the periplasmic proteome of *Pseudomonas aeruginosa*, a metabolically versatile opportunistic pathogen. *Proteomics.* 2009 Apr;9(7):1901-15.
79. Nugari MP, Pietrini AM, Caneva G, **Imperi F**, Visca P. Biodeterioration of mural paintings in a rocky habitat: The Crypt of the Original Sin (Matera, Italy). *Int Biodeterior Biodegradation.* 2009; 63(6):705-11.
80. **Imperi F**, Putignani L, Tiburzi F, Ambrosi C, Cipollone R, Ascenzi P, Visca P. Membrane-association determinants of the omega-amino acid monooxygenase PvdA, a pyoverdine biosynthetic enzyme from *Pseudomonas aeruginosa*. *Microbiology.* 2008 Sep;154(Pt 9):2804-13.
81. Tiburzi F, **Imperi F**, Visca P. Is the host heme incorporated in microbial heme-proteins? *IUBMB Life.* 2009 Jan;61(1):80-3.
82. Cipollone R, Ascenzi P, Tomao P, **Imperi F**, Visca P. Enzymatic detoxification of cyanide: clues from *Pseudomonas aeruginosa* Rhodanese. *J Mol Microbiol Biotechnol.* 2008;15(2-3):199-211.
83. Iacono M, Villa L, Fortini D, Bordoni R, **Imperi F**, Bonnal RJ, Sicheritz-Ponten T, De Bellis G, Visca P, Cassone A, Carattoli A. Whole-genome pyrosequencing of an epidemic multidrug-resistant *Acinetobacter baumannii* strain belonging to the European clone II group. *Antimicrob Agents Chemother.* 2008 Jul;52(7):2616-25.
84. Ascenzi P, **Imperi F**, Coletta M, Fasano M. Abacavir and warfarin modulate allosterically kinetics of NO dissociation from ferrous nitrosylated human serum heme-albumin. *Biochem Biophys Res Commun.* 2008 May 2;369(2):686-91.
85. Tiburzi F, **Imperi F**, Visca P. Intracellular levels and activity of PvdS, the major iron starvation sigma factor of *Pseudomonas aeruginosa*. *Mol Microbiol.* 2008 Jan;67(1):213-27.
86. **Imperi F**, Caneva G, Cancellieri L, Ricci MA, Sodo A, Visca P. The bacterial aetiology of rosy discoloration of ancient wall paintings. *Environ Microbiol.* 2007 Nov;9(11):2894-902.
87. Tiburzi F, Visca P, **Imperi F**. Do nonribosomal peptide synthetases occur in higher eukaryotes? *IUBMB Life.* 2007 Nov;59(11):730-3.
88. Di Giacomo M, Paolino M, Silvestro D, Vigliotta G, **Imperi F**, Visca P, Alifano P, Parente D. Microbial community structure and dynamics of dark fire-cured tobacco fermentation. *Appl Environ Microbiol.* 2007 Feb;73(3):825-37.
89. Visca P, **Imperi F**, Lamont IL. Pyoverdine siderophores: from biogenesis to biosignificance. *Trends Microbiol.* 2007 Jan;15(1):22-30.
90. Cipollone R, Frangipani E, Tiburzi F, **Imperi F**, Ascenzi P, Visca P. Involvement of *Pseudomonas aeruginosa* rhodanese in protection from cyanide toxicity. *Appl Environ Microbiol.* 2007 Jan;73(2):390-8.
91. Ambrosi C, Tiburzi F, **Imperi F**, Putignani L, Visca P. Involvement of AlgQ in transcriptional regulation of pyoverdine genes in *Pseudomonas aeruginosa* PAO1. *J Bacteriol.* 2005 Aug;187(15):5097-107.

BOOK CHAPTERS (PEER REVIEWED)

1. **Imperi F**, Mettrick KA, Shirley M, Tiburzi F, Draper RC, Visca P, Lamont IL. Iron transport and signalling in Pseudomonads. In Rehm B. (Ed.) *Pseudomonas: Biology, Medical Relevance and Biotechnology* 2008. Wiley-VCH, Weinheim, Germany. pp. 129-165.

2. Visca P, **Imperi F**, Lamont IL. Pyoverdine synthesis and its regulation in fluorescent pseudomonads. In Chincholkar S. B. (Ed.) *Microbial Siderophores (Soil Biology Series)* 2007. Springer Verlag, Heidelberg, Germany. pp. 135-163.

PATENTS

1. Visca P, **Imperi F**, Lucidi M, Spagnoli C, Visaggio D. Metodo per la quantificazione di microrganismi patogeni su superficie abiotiche (102025000014596, 19/06/2025). Under evaluation.
2. **Imperi F**, Ascenzioni F, Mori M, Ghirga F, Quaglio D, Corradi S, Lo Sciuto A, Botta B, Calcaterra A, Stefanelli R. . Inibitori della resistenza alla colistina mediata da ArnT (102019000012888, 25/7/2019) – Inhibitors of antibiotic resistance mediated by ArnT (WO 2021/014422 A1, 28/1/2021).
3. **Imperi F**, Frangipani E, Leoni L, Massai F, Visca P. 5-fluorocitosina come agente antibatterico. 2012. RM2012A000429.
4. Leoni L, Massai F, **Imperi F**, Zennaro E, Visca P. Biosensore per la rilevazione di 3OC12-HSL, kit comprendenti il biosensore e usi di esso. Patent no. RM2010A000541.

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Autorizzo il trattamento dei dati personali contenuti nel mio curriculum vitae in base all'art. 13 del D. Lgs. 196/2003 e all'art. 13 del Regolamento UE 2016/679 relativo alla protezione delle persone fisiche con riguardo al trattamento dei dati personali.