

Luigina CELLINI

FULL PROFESSOR OF MICROBIOLOGY (SSD MED/07 AREA 06/A3)
 Department of Pharmacy - University "G. d'Annunzio" Chieti-Pescara (Ud'A)
 Via dei Vestini, 31 66100 Chieti -IT

PERSONAL INFORMATION

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EDUCATION

1974 School leaving certificate (Scientific high school – Pescara)

1978 Degree in Biological Sciences (University of L'Aquila)

1981 Specialization in Microbiology (University 'La Sapienza' Rome)

PREVIOUS POSITIONS

1983 Researcher - SSD MED/07 – Experimental Medicine - Faculty of Medicine - Ud'A

2002 Associate Professor - SSD MED/07 – Microbiology section – Faculty of Pharmacy - Ud'A

2011 Full Professor - SSD MED/07 - Department of Pharmacy - Ud'A

BIBLIOMETRIC INDICATORS

<i>h</i> -index (Scopus)	32
Total citations (Scopus)	4095
Peer-reviewed publications	138

PUBLICATIONS (LAST 5 YEARS)

1. Q1 IF 5.220 Di Lodovico S, Fasciana T, Di Giulio M, Cellini L, Giammanco A, Rossolini GM, Antonelli. [Spread of Multidrug-Resistant Microorganisms](#). *Antibiotics* (Basel). 2022 Jun 21;11(7):832. doi: 10.3390/antibiotics11070832.
2. Q1 IF 6.208 Di Lodovico S, Diban F, Di Fermo P, Petrini M, Fontana A, Di Giulio M, Piattelli A, D'Ercole S, Cellini L. Antimicrobial Combined Action of Graphene Oxide and Light Emitting Diodes for Chronic Wound Management. *Int. J. Mol. Sci.* 2022, 23, 6942. <https://doi.org/10.3390/ijms23136942>.
3. Q1 IF 5.641 Di Lodovico S, Bacchetti T, D'Ercole S, Covone S, Petrini M, Di Giulio M, Di Fermo P, Diban F, Ferretti G, Cellini L. Complex Chronic Wound Biofilms Are Inhibited *in vitro* by the Natural Extract of *Capparis spinosa*. *Front Microbiol.* 2022 Apr 11;13:832919. doi: 10.3389/fmicb.2022.832919. eCollection 2022.
4. Q1 IF 6.081 Petrini M, Di Lodovico S, Iezzi G, Cellini L, Tripodi D, Piattelli A, D'Ercole S. Photodynamic Antibiofilm and Antibacterial Activity of a New Gel with 5-Aminolevulinic Acid on Infected Titanium Surfaces. *Biomedicines*. 2022 Feb 28;10(3):572. doi: 10.3390/biomedicines10030572.
5. Q1 IF 3.623 D'Ercole S, De Angelis F, Biferi V, Noviello C, Tripodi D, Di Lodovico S, Cellini L, D'Arcangelo C. Antibacterial and Antibiofilm Properties of Three Resin-Based Dental Composites against *Streptococcus mutans*. *Materials* (Basel). 2022 Mar 3;15(5):1891. doi: 10.3390/ma15051891.
6. Q2 IF 2.679 D'Ercole S, Mangano C, Cellini L, Di Lodovico S, Ozkaya CA, Iezzi G, Piattelli A, Petrini M. A Novel 3D Titanium Surface Produced by Selective Laser Sintering to Counteract *Streptococcus oralis* Biofilm Formation. *Appl. Sci.* 2021, 11, 11915. <https://doi.org/10.3390/app112411915>.
7. Q1 IF 2.804 D'Ercole S, Di Campi E, Pilato S, Iezzi G, Cellini L, Piattelli A, Petrini M. *Streptococcus oralis* Biofilm Formation on Titanium Surfaces. *Int J Oral Maxillofac Implants.* 2021 Sep-Oct;36(5):929-936. doi: 10.11607/ijomi.8739.
8. Q1 IF 6.081 D'Ercole S, Di Lodovico S, Iezzi G, Pierfelice TV, D'Amico E, Cipollina A, Piattelli A, Cellini L, Petrini M. [Complex Electromagnetic Fields Reduce Candida albicans Planktonic Growth and Its Adhesion to Titanium Surfaces](#). *Biomedicines*. 2021 Sep 18;9(9):1261. doi:10.3390/biomedicines9091261.
9. Q2 IF 2.679 Petrini M, Di Lodovico S, Iezzi G, Cipollina A, Piattelli A, Cellini L, D'Ercole S. Effects of complex electromagnetic fields on *Candida albicans* adhesion and proliferation on polyacrylic resin. *Applied Sciences (Switzerland) Open Access*, 11, 151 ; 2021 Article number 6786.

10. Q2 IF 4.128 Di Fermo P, Ciociola T, Di Lodovico S, D'Ercole S, Petrini M, Giovati L, Conti S, Di Giulio M, Cellini L. [Antimicrobial Peptide L18R Displays a Modulating Action against Inter-Kingdom Biofilms in the Lubbock Chronic Wound Biofilm Model](#). *Microorganisms*. 2021 Aug 21;9(8):1779. doi: 10.3390/microorganisms9081779.
11. 2 IF 2.489 D'Ercole S, Cellini L, Pilato S, Di Lodovico S, Iezzi G, Piattelli A, Petrini M. [Material characterization and *Streptococcus oralis* adhesion on Polyetheretherketone \(PEEK\) and titanium surfaces used in implantology](#). *J Mater Sci Mater Med*. 2020 Sep 28;31(10):84. doi: 10.1007/s10856-020-06408-3.
12. Q1IF 3.893 Di Fermo P, Di Lodovico S, Amoroso R, De Filippis B, D'Ercole S, Di Campli E, Cellini L, Di Giulio M. Searching for New Tools to Counteract the *Helicobacter pylori* Resistance: The Positive Action of Resveratrol Derivatives. *Antibiotics (Basel)*. 2020 Dec 10;9(12):891. doi: 10.3390/antibiotics9120891.
13. Q1 IF 4.122 Di Giulio M, Di Lodovico S, Fontana A, Traini T, Di Campli E, Pilato S, D'Ercole S, Cellini L. [Graphene Oxide affects *Staphylococcus aureus* and *Pseudomonas aeruginosa* dual species biofilm in Lubbock Chronic Wound Biofilm model](#). *Sci Rep*. 2020 Oct 28;10(1):18525. doi: 10.1038/s41598-020-75086-6.
14. Q2 IF 4.152 Di Lodovico S, Gasparri F, Di Campli E, Di Fermo P, D'Ercole S, Cellini L, Di Giulio M. [Prebiotic Combinations Effects on the Colonization of Staphylococcal Skin Strains](#). *Microorganisms*. 2020 Dec 24;9(1):E37. doi: 10.3390/microorganisms9010037.
15. Q1/Q2 IF 4.067 D'Ercole S, Di Fermo P, Di Giulio M, Di Lodovico S, Di Campli E, Scarano A, Tripodi D, Cellini L, Petrini M. Near-infrared NIR irradiation and sodium hypochlorite: An efficacious association to counteract the *Enterococcus faecalis* biofilm in endodontic infections. *J Photochem Photobiol B*. 2020 Sep; 210:111989. doi: 10.1016/j.jphotobiol.2020.111989.
16. Q1 IF 4.235 Di Lodovico S, Menghini L, Ferrante C, Recchia E, Castro-Amorim J, Gameiro P, Cellini L, Bessa LJ. [Hop Extract: An Efficacious Antimicrobial and Anti-biofilm Agent Against Multidrug-Resistant *Staphylococci* Strains and *Cutibacterium acnes*](#). *Front Microbiol*. 2020 Aug 13;11:1852. doi: 10.3389/fmicb.2020.01852. eCollection 2020.
17. Q2 IF 3.352 Ciccaglione AF, Cellini L, Marzio L. [Pylera® plus ranitidine vs Pylera® plus esomeprazole in first-line treatment of *Helicobacter pylori* infection: Two pilot studies](#). *Helicobacter*. 2019 Jun 5:e12606. doi: 10.1111/hel.12606.
18. Q2 IF 2.776 Marini E, Di Giulio M, Ginestra G, Magi G, Di Lodovico S, Marino A, Facinelli B, Cellini L, Nostro A. Efficacy of carvacrol against resistant rapidly growing mycobacteria in the planktonic and biofilm growth mode. *PLoS One*. 2019 Jul 1;14(7):e0219038. doi: 10.1371/journal.pone.0219038. eCollection 2019.
19. Q1 IF 4.122 Di Lodovico S, Napoli E, Di Campli E, Di Fermo P, Gentile D, Ruberto G, Nostro A, Marini E, Cellini L, Di Giulio M. *Pistacia vera* L. oleoresin and levofloxacin is a synergistic combination against resistant *Helicobacter pylori* strains. *Sci Rep*. 2019 Mar 15;9(1):4646. doi: 10.1038/s41598-019-40991-y.
20. Q1 IF 5.070 Ciccaglione AF, Di Giulio M, Di Lodovico S, Di Campli E, Cellini L, Marzio L. Bovine lactoferrin enhances the efficacy of levofloxacin based triple therapy as first line treatment of *Helicobacter pylori* infection: an *in vitro* and *in vivo* study. *J Antimicrob Chemother* 2019 Apr 1;74(4):1069-1077. doi: 10.1093/jac/dky510.
21. Q2 IF 2.050 Magi G, E. Marini E, Brenciani A, Di Lodovico S, Gentile D, Ruberto G, Cellini L, Nostro A, Facinelli B, Napoli E. Chemical composition of *Pistacia vera* L. oleoresin and its antibacterial, anti-virulence and anti-biofilm activities against oral streptococci, including *Streptococcus mutans*. *Archives of Oral Biology*. 2018 Sep 28;96:208-15. doi:10.1016/j.archoralbio.2018.09.013.
22. Q1 IF 4.255 Di Giulio M, Zappacosta R, Di Lodovico S, Di Campli E, Siani G, Fontana A, Cellini L. Antimicrobial and Antibiofilm Efficacy of Graphene Oxide against Chronic Wound Microorganisms. *Antimicrob Agents Chemother*. 2018 Jun 26;62(7), 1-9. pii: e00547-18. doi: 10.1128/AAC.00547-18.
23. Q2 IF 2.448 Di Giulio M, Di Valerio V, Bosco D, Marsich E, Cataldi A, Cellini L, Sancilio S. Molecular mechanisms driving *Streptococcus mitis* entry into human gingival fibroblasts in presence of chitlac-nAg and saliva. *J Mater Sci Mater Med*. 2018 Mar 19;29(4):36, 1-9. doi: 10.1007/s10856-018-6040-x.
24. Q4 IF 1.373 Di Lodovico S, Del Vecchio A, Cataldi V, Di Campli E, Di Bartolomeo S, Cellini L, Di Giulio M. Microbial Contamination of Smartphone Touchscreens of Italian University Students. *Curr Microbiol*. 2018 Mar;75(3):336-42. doi:10.1007/s00284-017-1385-9.
25. Q1/Q2 IF 3.766 Marini E, Di Giulio M, Magi G, Di Lodovico S, Cimarelli ME, Brenciani A, Nostro A, Cellini L, Facinelli B. Curcumin, an antibiotic resistance breaker against a multiresistant clinical isolate of *Mycobacterium abscessus*. *Phytother Res*. 2018 Mar;32(3):488-95. doi: 10.1002/ptr.5994.
26. Q4 IF 0.924 Mollica A, Macedonio G, Stefanucci A, Costante R, Carradori S, [Cataldi V](#), [Di Giulio M](#), Cellini L, Silvestri R, Giordano C, [Scipioni A](#), [Morosetti S](#), [Punzi P](#), [Mirzaic S](#). Arginine- and Lysine rich Peptides: Synthesis, Characterization and Antimicrobial Activity. *Lett Drug Des Discover*. 2018; 15 (3); 220-6. DOI:10.2174/1570180814666170213161341.

AWARDS

2021 Best Poster Award:

"Ruolo antibatterico e anti-biofilm dell'estratto di luppolo nei confronti di Stafilococchi multifarmaco-resistenti e *Cutibacterium acnes*", Di Fermo P., Di Lodovico S., Diban F., Di Campli E., D'Ortona F., D'Ercole S., Di Giulio M., Cellini L. XIII Congress of Italian Society of Pharmaceutical Microbiology, June 28-29, 2021.

2016 Best Poster Award Second prize *ex aequo*:

"Attività antimicrobica di oli essenziali e principi attivi vegetali nei confronti di un ceppo clinico di *Mycobacterium abscessus* multi-resistente e produttore di biofilm" Marini E., Magi G., Cimarelli M.E., Piersimoni C., Nostro A., Ginestra G., Di Giulio M., **Cellini L.**, Facinelli B. IV Congresso Nazionale SIROE. Roma 25-26 novembre 2016. Università di Roma Tor Vergata

2011 Best Paper Award

International Journal of Molecular Science 2015's Potential Antibacterial Activity of Carvacrol-Loaded Poly(DL-lactide-co-glycolide) (PLGA) Nanoparticles against Microbial Biofilm" Iannitelli A., R. Grande, A. Di Stefano, M. Di Giulio, P. Sozio, L. J. Bessa, S. Laserra, C. Paolini, F. Protasi and **L. Cellini**. *Int. J. Mol. Sci.* 2011, 12(8), 5039–5051; doi:10.3390/ijms12085039 "This paper presents an innovative nanoparticle-based approach to disrupting biofilms, a major challenge in biomedicine."—Prof. Dr. Vince Rotello

PATENTS

2016 International patent; Inventors: *Cellini L., Di Campli E., Di Bartolomeo S.* No.: (PCT) WO2014/019696 A1-International Application No.: PCT/EP2013/002292; Transport medium for isolation and identification of *Helicobacter pylori*.

2012 National patent; Inventori: *Cellini L., Di Campli E., Di Bartolomeo S.* RM2012A000379 (IT). Nuovo terreno di trasporto "GESA" per l'isolamento di *Helicobacter pylori* da biopsie gastriche.

ACADEMIC ACTIVITIES AND ORGANIZATION

Head of the Section of Microbiology - Department of Pharmacy - Ud'A since 2002

President of the Board of Studies in Chemistry and Pharmaceutical Technologies (CTF) 2014/-17 Ud'A

Student Counseling Manager for the assignment of Compilatory and Experimental theses in the Courses in Pharmacy and CTF - Ud'A. Supervisor of several students for Compilatory and Experimental theses in the Pharmacy, CTF, Biology and in several Specialization Courses Ud'A

Member of the Academic Board of the PhD in Biomedical, Cytomorphological and Motory Sciences (2011 - 2012) Biomolecular and Pharmaceutical Sciences (since 2013)

President of the Discipline Committee -(2018-2020) Ud'A (D.R. (DR: 793 del23.03.2018)

President of the Equal Opportunities Committee - Ud'A (D.R. 528 of 27.04.2010)

Member of National Commissions for selective procedures for RTD.B, RTDA and Associate professors SSD MED.07

Member of the Council of Teaching Committee MED.07 (2015-2020)

Member of the National Council of the Italian Society of Microbiology - SIM since 2016

Member of the National Scientific Qualification - ASN 2016-2018

Expert Referee for PRIN projects (2011)

Referee "peer" in the evaluation of Research Products delivered for VQR 2004-2010

Member of the editorial board of World Journal of Gastroenterology WJP

Referee "AD HOC" for several international scientific journals

National Coordinator of the following granted projects:

2005-2006: MIUR "Microbial biofilms as dynamic system to overcome the environmental stress. New advances in prevention and singling out of integrate therapeutic strategies" PRIN 2005 -

2003-2004: MIUR "Evaluation of bacterial biofilm molecular targets for the development of diagnostic, prophylactic and therapeutic new strategies" PRIN 2003

FINANCED RESEARCH PROJECTS

Scientific Responsible/National Coordinator in the following granted projects:

MIUR "Microbiology of cooperative interactions between microorganisms: implications for control of respiratory and gastric infections pathogenesis, for characterization of microbial biofilms and for identification of new pharmacological anti-biofilm strategies" **PRIN 2007 - Scientific Responsible (2007-2008)**

MIUR "Microbial biofilms as dynamic system to overcome the environmental stress. New advances in prevention and singling out of integrate therapeutic strategies" PRIN 2005 - National Coordinator (2005-2006)

MIUR "Evaluation of bacterial biofilm molecular targets for the development of diagnostic, prophylactic and therapeutic new strategies" **PRIN 2003 - National Coordinator (2003-2004)**

MIUR "Pathogenic bacteria causing water-born diseases: detection by culture and molecular methods of their persistence in aquatic environments in association with plankton and in the viable but nonculturable state" **PRIN 2000 - Scientific Responsible (2000-2001)**

CNR "VBNC state in *Helicobacter pylori* and its role in the microorganism transmission" - **Scientific Responsible (1997-1998)**

CNR "Study and clinical significance of coccoid forms of *H. pylori*"- **Scientific Responsible (1995-1996)**

CNR "Morphological conversion in *H. pylori*"- Scientific Responsible (1993-1995)

CNR "Cloning and expression of one enzymatic activity between some strains of *Staphylococcus* and *Enterococcus*" - **Scientific Responsible (1992-1993)**

Collaborator in the following granted projects:

MIUR "Processi degenerativi dei tessuti mineralizzati del cavo orale, impiego di biomateriali e controllo delle interazioni con microrganismi dell'ambiente" **FIRB (2012-2015)**

MIUR "Ruolo della protein Chinasi C (PKC) nei processi di integrazione/interazione tra biomateriale dentale/tessuto ospite/flora microbica della cavità orale" **PRIN 2009 (2009-2011)**

TEACHING ACTIVITIES

Teaching of Microbiology since 1991 in the following Courses:

School of Medicine 1991/1992,

Health Professions (Nursing Sciences - 1992/1999, Biomedical Laboratory Technician - 1998/2002, Physiotherapists, 2002/2005),

Pharmacy 1992/1999, 2002/2016, CTF 2002/2007, 2012/2013 present

Schools of Specialization in Hygiene and Preventive Medicine - 1991/1994; 2014-2020

Schools of Specialization in Dermatology 1998-2006, Gastroenterology 1998 / 2018, Internal Medicine 2017 / present

Teaching of Applied Microbiology:

Courses of Pharmacy 1998/2001, 2011/present

Teaching of general and food Microbiology

Courses of Biology 2018/present

ORGANISATION OF SCIENTIFIC MEETINGS

2021 Scientific Committee Member of 13th National Congress of Pharmaceutical Microbiology 28/29 June 2021

2018 Organizer of Scientific meetings "Le parassitosi intestinali trasmesse da prodotti ittici" Specialistic Degree in Food and Health Sciences, University 'G. d'Annunzio' Chieti-Pescara and "Vita, Vite, Vino" Specialistic Degree in Food and Health Sciences, University 'G. d'Annunzio' Chieti-Pescara

2018 Scientific Committee Member of 46^o National Congress of Italian Society of Microbiology 26-29 september 2018, Palermo

2014 President and Organizer of 10^o National Congress of the Italian Society of Pharmaceutical Microbiology SIMiF Congress of Pharmaceutical Microbiology, Chieti, 6-7 June 2014

REVIEWING ACTIVITIES

Participation in editorial committees of World Journal of Gastroenterology (WJP - ISSN1007-9327 (print) ISSN 2219-2840 (online) "AD HOC" reviewer for numerous international sector journals

Reviewer in the evaluation of PRIN projects

MEMBERSHIPS OF SCIENTIFIC SOCIETIES

SIM (Italian Society of Microbiology), SIMiF (Italian Society of Pharmaceutical Microbiology), SIROE (Italian Society for research on Essential oil), ASM (American Society of Microbiology)

PUBLIC ENGAGEMENT

Publication of an article for public dissemination on Natural1: "Composti naturali: importante risorsa per contrastare la farmaco-resistenza nelle infezioni da *Helicobacter pylori*." (Giugno 2020, Anno XX n°192)

Autori: Di Lodovico S., Di Giulio M., **Cellini L.**

Webinar "Che aria tira? - Convegno tecnico sul valore dell'aria" - l'Ab News

<https://www.youtube.com/watch?v=xtfO6-rrFP4&t=116s>

website creation and management: Microbiology lab-website:

<https://labmicrobiologychieti.wordpress.com/>

MAJOR COLLABORATIONS

Prof. A. Cataldi, A. Prof. Fontana, Prof. S. Genovese, Prof. A. Mollica, Prof. A. Di Stefano, Prof. I. Cacciatore, Department of Pharmacy, University "G. d'Annunzio" Chieti-Pescara

Prof. S. Caputi, Prof. T. Traini, Prof. B. Sinjari, Department of Medical, Oral and Biotechnological Sciences, University "G. d'Annunzio" Chieti-Pescara

Prof. S. Conti, Department of Medicine and Surgery, University of Parma, 43125 Parma, Italy ()

Prof. LJ Bessa Associate Professor at Instituto Universitário Egas Moniz (Egas Moniz, Fundação para a Ciência e a Tecnologia (Lisboa, PT)

Prof. Milena Radunovic, School of Dental Medicine, University of Belgrade, Belgrade, Serbia