

Curriculum vitae

Laura Selan

Name: Laura Selan

born in Rome (Italy) on may, 22nd 1955.

Home address: Rome, via Suvereto, 179

Position: Associate Professor, Università di Roma "La Sapienza"

telephone/fax: 06-4451324 0649914638

e-mail: laura.selan@uniroma1.it

Education

1979: Degree summa cum laude in Biology, at the University of Rome "La Sapienza".

Academic and professional positions.

1989-2001: Technical position at the University of Rome "La Sapienza", Chair of Microbiology and Hygiene, course of Chemistry and Pharmaceutical Technologies.

2001: Research Fellow at the Faculty of Pharmacy, University of Rome "La Sapienza".

2003-2016: Associate Professor of the Faculty of Medicine and Surgery in the field of Microbiology and Clinical Microbiology, University of Rome "La Sapienza".

Academic/Teaching experience

1983-2016: Teacher for undergraduate and graduate students in the Faculty of Pharmacy and in the Faculty of Medicine of the University of Rome "La Sapienza".

Awards and Honors

1980: Prime Minister's office Prize - office of Minister of Coordination of the Scientific and Technological Research.

1994: Bausch & Lomb Prize for the best annual research work of the European Ophthalmology Society.

1994 and 1995: Applied Research Prize of the Italian Society of Odonto-stomatology and Maxillofacial Surgery (SIOC MF) and of the Italian Dental Industries Union (UNIDI).

Scientific Societies

Since 1989: Italian Society of Microbiology member.

Since 2000: American Society of Microbiology member.

Publications

She is author or co-author of many national and international publications listed below. She attended over than 100 national and international congresses, in some of them as invited speaker.

Authors	Title	Journals
Oliva B., Selan L. , Ravagnan G., Renzini G.	<i>Inhibition of conjugal transfer by new quinolonic compounds</i>	Chemioterapia (J. Chemotherapy), <u>4</u> : 199-201, 1985.
Selan L. , Scazzocchio F., Oliva B., Schippa S., Allocati N., Renzini G.	<i>Plasmid curing by some recently syntetized 4-quinolone compounds.</i>	Chemioterapia (J. Chemotherapy), <u>7</u> : 292-294, 1988.
Scazzocchio F., Selan L. , Oliva B., Schippa S., Cellini L., Renzini G.	<i>Inhibition of plasmid conjugation by some recently syntetized 4-quinolone compounds.</i>	Chemioterapia (J. Chemotherapy), <u>7</u> : 295-297, 1988.
Piccolomini R., Cellini L., Allocati N., Di Girolamo, Selan L. , Scazzocchio F.	<i>In vitro activity of pefloxacin compared with five other quinolones on nalidixic acid resistant Proteae species.</i>	Chemioterapia (J. Chemotherapy), <u>7</u> : 287-291, 1988.
Thaller M.C., Berlutti F., Selan L. , Scazzocchio F., Tarantino U.	<i>Antibiotic susceptibility of slime producing isolates from orthopedic patients.</i>	Journal of Chemotherapy, <u>suppl. 4</u> : 262-265, 1989.
Selan L. , Thaller M.C., Berlutti F., Passariello C., Scazzocchio F., Renzini G.	<i>Effect of slime production on the antibiotic susceptibility of isolates from prosthetic infections.</i>	Journal of Chemotherapy, <u>1</u> : 369-373, 1989.
Cerulli L., Selan L. , Thaller M.C., Berlutti F.	<i>The role of disinfectants on contact lenses contaminated with planktonic and sessile forms of bacteria</i>	Modern trends in Ophthalmology: <u>2</u> : 91-98, 1989
Thaller M.C., Berlutti F., Selan L. , Giovannelli d.	<i>Foreign body related infections: a study model. In: Microbiological Chemotherapeutical and Immunological Problems in high Risk Patients.</i>	Serono Simposia Publication from Raven Press, <u>61</u> : 93-99, 1989
Passariello C., Thaller M.C., Selan L. , Berlutti F., De Luca M., Renzini G.	<i>Periodontal regeneration procedures may induce colonization by glycocalyx producing bacteria.</i>	Medical Microbiology and Immunology, <u>180</u> : 67-72, 1991.
Selan L. , Passariello C., Berlutti F., Thaller M.C., Renzini G.	<i>Reliability of a bioluminescence ATP assay for detection of bacteria.</i>	Journal of Clinical Microbiology, <u>30</u> : 1739-1742, 1992.
Passariello C., Berlutti F., Selan L. , Amodeo C., Comodi Ballanti M.R., Serafino L., Thaller M.C.	<i>Microbiological and morphological analysis of dental implants removed for incomplete osseointegration.</i>	Microbial Ecology in Health and Disease, <u>6</u> : 203-207, 1993.
Selan L. , Berlutti F., Passariello C., Comodi Ballanti M.R., Thaller M.C.	<i>Proteolytic enzymes: a new treatment strategy for prosthetic infections?</i>	Antimicrobial Agents and Chemotherapy, <u>37</u> : 2618-2621, 1993.
Selan L. , Passariello C., Thaller M.C., Berlutti F., Renzini G.	<i>Effect of the inoculum size on susceptibility tests performed on sessily growing bacteria.</i>	Journal of Chemotherapy, <u>6</u> : 163-166, 1994.
Passariello C., Selan L. , Thaller M.C., Berlutti F., Pezzi R.	<i>A rapid staining procedure to demonstrate glycocalyx production and bacterial biofilms.</i>	Microbiologica, <u>17</u> : 225-230, 1994.
Thaller M.C., Selan L. , Berlutti F., Dolci M., Puttini M., Renzini G.	<i>Possibile pathways to manage submerged implant centred infections.</i>	Proceedings 1 st World Congress of Osseointegration, Venice, September 29 – October 2, 1994
Thaller M.C., Fiorani P., Selan L. , Passariello C., Rizzo L., Speciale F.	<i>A comparative in vitro evaluation of different therapeutic protocols for vascular graft infections.</i>	European Journal of Vascular and Endovascular Surgery, (<u>Suppl A</u>) <u>14</u> : 35-37, 1997.
Selan L. , Passariello C.	<i>Microbiological diagnosis of aortofemoral graft infections.</i>	European Journal of Vascular and Endovascular Surgery, (<u>Suppl A</u>) <u>14</u> : 10-12, 1997.
Thaller M.C., Berlutti F.,	<i>Bacterial Acid Phosphatase Gene Fusions</i>	Biotechnol Prog, <u>14</u> : 241-247, 1998.

Schippa S., Selan L. , Rossolini G.M.	<i>Useful as Targets for Cloning-Dependent Insertional Inactivation.</i>	
Pantanella F., Petrone G., Passariello C., Selan L. , Thaller M.C., Valenti P.	<i>Invasion of human cultured cells by Prevotella nigrescens.</i>	International Journal of Immunopathology and Pharmacology, <u>12</u> (3): 143-148, 1999.
Thaller M.C., Schippa S., Bonci A., Berlutti F., Selan L. , Rossolini G.M.	<i>Genetic rearrangements in the tyrB-uvrA region of the enterobacterial chromosome: a potential cause for different class B acid phosphatase regulation in Salmonella enterica and Escherichia coli.</i>	FEMS Microbiology Letters, <u>181</u> : 17-23, 1999.
Rossolini G.M., Riccio M.L., Cornaglia G., Pagani L., Lagatella C., Selan L. , Fontana R.	<i>Carbapenem resistant Pseudomonas aeruginosa with acquired bla_{VIM} metallo-beta-lactamase determinants, Italy.</i>	Emerging Infectious Diseases, <u>6</u> (3): 312-13, 2000.
Berlutti F., Passariello C., Selan L. , Thaller M.C., Rossolini GM.	<i>The Chryseobacterium meningosepticum PafA enzyme: prototype of a new enzyme family of prokaryotic phosphate-irrepressible alkaline phosphatases</i>	Microbiology (UK), <u>147</u> (Pt 10): 2831-9, 2001.
Selan L. , Passariello C., Rizzo L., Varesi P., Speziale F., Renzini G., Thaller MC., Fiorani P., Rossolini GM.	<i>Diagnosis of vascular graft infections with antibodies against staphylococcal slime antigens</i>	The Lancet, <u>359</u> : 2166-8 2002.
Selan L. , Artini M., Testarelli L., De Luca M., Dolci G.	<i>Microbial contamination of DUWLs: effectiveness of anti cross infection devices..</i>	U & U, 2003;. 3 (1), p. 9-14
Cafiso V., Bertuccio T., Santagati M., Campanile F., Amicosante G., Perilli M.G., Selan L. , Artini M., Nicoletti G., and Stefani S.	<i>Presence of the ica Operon in clinical isolates of Staphylococcus epidermidis and its role in biofilm production</i>	Clin Microbiol Infect 2004; 10: 1081-1088.
Nucci C., Artini M., Pasmore M., Missiroli F., Costerton J.W., Selan L.	<i>A microbiological and confocal microscopy study documenting a slime-producing Staphylococcus epidermidis isolated from a nylon corneal suture of a patient with antibiotic-resistant endophthalmitis</i>	Graefes Arch Clin Exp Ophthalmol. 2005 Sep;243(9):951-4.
Longhi C., Scoarughi G.L., Poggiali F., Cellini A., Carpentieri C., Seganti L., Pucci P., Amoresano A., Cocconcelli P.S., Artini M., Costerton J.W., Selan L.	<i>Protease treatment affects both invasion ability and biofilm formation in Listeria monocytogenes.</i>	Microbial Path. 2008 45:45-52
Artini M., Scoarughi G.L., Papa R., Dolci M., De Luca M., Orsini G., Pappalardo S., Costerton W., Selan L.	<i>Specific Anti Cross-Infection Measures May Help to Prevent Viral Contamination of Dental Unit Waterlines: a Pilot Study.</i>	Infection 2008 Oct. 36(5). 467-71
Artini M., Papa R., Scoarughi G.L., Catalano C., Palamara A.T., Passariello R., Selan L.	<i>In-Vitro Detection of Herpes Simplex Virus -1 and -2 Infection with Immunospecific Gd3+-CI6- enhanced Magnetic Resonance Imaging.</i>	Int J Immunopathol Pharmacol. 2009 Jan-Mar. 22(1):145-51
Selan L. , Palma S, Scoarughi G.L., Papa R., Veeh RH, Di clemente D., Artini M.	<i>Phosphorylcholine strongly impairs susceptibility to biofilm formation of hydrogel contact lenses.</i>	American J Optalmol 2009 Jan. 147 (1):134-9
Falconi M, Ortolani M, Teti G, Zago M, Orsini G, Selan L. , Mazzotti G.	<i>Suppression of Procollagen {alpha}1 type 1 by long-term low-dose exposure to 2-hydroxyethylmethacrylate in human gingival fibroblasts in vitro.</i>	Int J Toxicol. 2010 Sep-Oct. 29(5):523-31
Artini m., Scoarughi G.L., Papa R., Cellini A.,	<i>Comparison of anti-bacterial prophylactic properties of two different grafts. Action of</i>	Int J Immunopathol Pharmacol. 2010 Jan-Mar. 23(1):383-6

Avanzolini C., Mileto E., Rizzo L., Selan L.	<i>antibacterial graft coating and systemic antibiotic treatment.</i>	
Artini M, Romanò C, Manzoli L, Scoarughi GL, Papa R, Meani E, Drago L, Selan L.	<i>Staphylococcal IgM enzyme-linked immunosorbent assay for diagnosis of periprosthetic joint infections.</i>	J Clin Microbiol. 2011 Jan. 49(1):423-5
Artini, M., Scoarughi G.L., Papa R., Cellini A., Carpentieri A., Pucci P., Amoresano A., Gazzola S., Cocconcelli P.S., Selan L.	<i>A new anti-infective strategy to reduce adhesion-mediated virulence in S. aureus affecting surface proteins.</i>	Int J Immunopathol Pharmacol. 2011 24(3):661-72.
Artini M, Papa R, Barbato G, Scoarughi GL, Cellini A, Morazzoni P, Bombardelli E, Selan L.	<i>Bacterial biofilm formation inhibitory activity revealed for plant derived natural compounds.</i>	Bioorganic & Medicinal Chemistry 2012, 20(2):920-6.
Artini M, Scoarughi G.L.; Cellini A.; Papa R; Barbato G; Selan L.	<i>Holo and apo-transferrins interfere with adherence to abiotic surfaces and with adhesion/invasion to HeLa cells in Staphylococcus spp.</i>	Biometals 2012, 25(2):413-21.
Dagna A, Arciola CR, Visai L, Selan L , Colombo M, Bianchi S, Poggio C.	<i>Antibacterial efficacy of conventional and single-use Ni-Ti endodontic instruments: an in vitro microbiological evaluation.</i>	Int J Artif Organs. 2012, 35(10): 826-831.
Poggio C, Arciola CR, Cepurnykh S, Chiesa M, Scribante A, Selan L , Imbriani M, Visai L.	<i>In vitro antibacterial activity of different self-etch adhesives.</i>	Int J Artif Organs. 2012, 35(10): 847-853.
Arciola CR, Hänsch GM, Visai L, Testoni F, Maurer S, Campoccia D, Selan L , Montanaro L.	<i>Interactions of staphylococci with osteoblasts and phagocytes in the pathogenesis of implant-associated osteomyelitis.</i>	Int J Artif Organs. 2012, 35(10): 713-726.
Baena RR, Arciola CR, Selan L , Battaglia R, Imbriani M, Rizzo S, Visai L.	<i>Evaluation of bacterial adhesion on machined titanium, Osseotite® and Nanotite® discs.</i>	Int J Artif Organs 2012, 35(10): 754-761.
Campoccia D, Cangini I, Selan L , Vercellino M, Montanaro L, Visai L, Arciola CR.	<i>An overview of the methodological approach to the in vitro study of anti-infective biomaterials.</i>	Int J Artif Organs. 2012, 35(10): 800-816.
Ravaioli S, Selan L , Visai L, Pirini V, Campoccia D, Maso A, Speziale P, Montanaro L, Arciola CR.	<i>Staphylococcus lugdunensis, an aggressive coagulase-negative pathogen not to be underestimated.</i>	Int J Artif Organs. 2012, 35(10): 742-753.
Artini M, Papa R, Scoarughi GL, Galano E, Barbato G, Pucci P, Selan L.	<i>Comparison of the action of different proteases on virulence properties related to the staphylococcal surface.</i>	J Appl Microbiol. 2013, 114: 266-277.
Papa R, Parrilli E, Sannino F, Barbato G, Tutino ML, Artini M, Selan L	<i>Anti-biofilm activity of the Antarctic marine bacterium Pseudoalteromonas haloplanktis TAC125.</i>	Res Microbiol.164(5):450-6
Papa R, Artini M, Cellini A, Tilotta M, Galano E, Pucci P, Amoresano A, Selan L.	<i>A new anti-infective strategy to reduce the spreading of antibiotic resistance by the action on adhesion-mediated virulence factors in Staphylococcus aureus.</i>	Microb Pathog. 2013;63:44-53.
Artini M, Papa R, Cellini A, Tilotta M, Barbato G, Koverech A, Selan L.	<i>Effect of Betamethasone in combination with antibiotics on Gram positive and Gram negative bacteria</i>	Int J Immunopathol Pharmacol. 2014, 27: 675-82
Iebba V, Totino V, Santangelo F, Gagliardi A, Ciotoli L, Virga A, Ambrosi C, Pompili M, De Biase RV, Selan L , Artini	<i>Bdellovibrio bacteriovorus directly attacks Pseudomonas aeruginosa and Staphylococcus aureus Cystic fibrosis isolates.</i>	Front Microbiol. 2014 Jun 5;5:280.

M, Pantanella F, Mura F, Passariello C, Nicoletti M, Nencioni L, Trancassini M, Quattrucci S, Schippa S.		
Artini M, Cellini A, Scoarughi GL, Papa R, Tilotta M, Palma, Selan L.	<i>Evaluation of contact lens multipurpose solutions on bacterial biofilm development.</i>	Eye & Contact Lens 2015, 41: 177-82
Parrilli E, Papa R, Carillo S, Tilotta M, Casillo A, Sannino F, Cellini A, Artini M, Selan L. , Corsaro MM, Tutino ML.	<i>Anti-biofilm activity of Pseudoalteromonas haloplanktis TAC125 against Staphylococcus epidermidis biofilm: evidences of a signal molecule involvement.</i>	Int J Immunopathol Pharmacol 2015, 28: 104-13
Artini M, Cellini A, Papa R, Tilotta M, Scoarughi GL, Gazzola S, Fontana C, Tempera G, Coconcelli PS, Selan L.	<i>Adhesive behaviour and virulence of coagulase negative staphylococci isolated from Italian cheeses.</i>	Int J Immunopathol Pharmacol. 2015, 28:341-50.
L Selan , R Papa, M Tilotta, G Vrenna, A Carpentieri, A Amoresano, P Pucci, M Artini	<i>Serratiopeptidase: a well-known metalloprotease with a new non-proteolytic activity against S. aureus biofilm</i>	BMC Microbiology 2015, 9;15(1):207.
Papa R, Selan L. , Parrilli E, Tilotta M, Sannino F, Feller G, Tutino ML, Artini M.	<i>Anti-biofilm activities from marine cold adapted bacteria against staphylococci and Pseudomonas aeruginosa</i>	Front Microbiol. 2016, 6:1333.
di Pasquale P, Caterino M, De Maria F, Rossi E, Landini P, Iebba V, Papa R, Selan L. , M. Artini, Palamara AT, Duilio A.	<i>Exposure to DNA-methylating agents impairs biofilm formation and invasion of eukaryotic cells via down regulation of the sialidase NanA</i>	Front Microbiol. 2016, 7:1347.
Parrilli E, Ricciardelli A, Casillo A, Sannino F, Papa R, Tilotta M, Artini M, Selan L. , Corsaro MM, Tutino ML.	<i>Biofilm cultivation of Antarctic bacterium P. haloplanktis TAC125: physiologic studies and biotechnological applications</i>	Extremophiles. 2016, 20:227-34

Books

L. Selan , Passariello C, Schippa S, Condemi MA, Thaller MC	<i>A method for in vitro simulation of experimental infections due to prostheses</i>	In: VAN ZUTPHEN L.F.M.; BALLS M.. Developments in animal and veterinary sciences. vol. 27, p. 943-947, Elsevier. 1997
L. Selan , J. Kofonow, G.L. Scoarughi, T.Vail, J.G. Leid and M.Artini	<i>Use of immunodiagnostics for the Early detection of Biofilm Infections</i>	The Role of Biofilms in Device-Related Infections. ISSN 1863-9607 Volume 3 pag. 219-237.2008
L. Selan , M. Artini	<i>Imaging RM della prostata.</i>	Imaging Molecolare. ISBN: 978-88-470-1515-9 pag. 217-225.2010
L. Selan , M. Artini, R. Papa	<i>Compounds from Natural Sources for New Diagnostics and Drugs against Biofilm Infections</i>	Biofilm 2016. InTech Ed.

Invited Speaker

Title	Meeting
<i>Bacterial phenotype modulation as a therapeutic strategy against device-related infections: analysis on the molecular level</i>	Oral Healthcare Biofilm Symposium. University of Southern California (USC) Los Angeles CA, 24-28 October 2005.
<i>Diagnosis of biofilm infections by immunological methods</i>	Big Bash Biofilm Symposium. University of Southern California (USC) Los Angeles CA, 24-28 October 2005.

Patents and Sequences.

Patent PCT-23566 (Nov 26th 1997): Immunoconjugates comprising human monoclonal antibodies or fragments thereof for diagnostic and therapy".

Patent MI98A00197 (Feb 3rd 1998): Method for the determination of prosthetic infections".

Patent WO9940440 (Ago 12th 1999, personal priority Feb 3rd 1998): Method for the determination of prosthetic infections".

*Sequence AJ237898 (GenBank/EMBL): Porphyromonas gingivalis *olpA* and *fbfA* genes and ORF3 (partial).*

Patent LU2007A000009 Use of transferrin for the preparation of pharmaceutical drugs for the treatment of bacterial infections in combination with chemotherapy.

Research Activity.

- *Genetic Mechanisms of the antibiotic resistance in Bacteria.*
- *Biofilm Physiology aspects: pharmacological resistance.*
- *Medical implication of biofilm prosthetic infections.*
- *Efficacy of diagnostic systems related to bacterial physiology.*
- *Host-parasite relationship in bacterial infections.*
- *Biotechnological application for the definition and optimization of innovative systems in the fields of laboratory diagnostic and of advanced diagnostic imaging in medicine (both in the infective and in the oncological field).*