

PIETRO GRISOLI

Confirmed Researcher

CURRICULUM VITAE

EDUCATION

Degree in Pharmaceutical Chemistry and Technology, University of Pavia (1998)

RESEARCH AND PROFESSIONAL EXPERIENCE

- Technical assistant at the Faculty of Pharmacy, University of Pavia (1999-2008)
- Unconfirmed researcher (MED/07) at the Faculty of Pharmacy, University of Pavia, since 2008.
- Confirmed researcher (MED/07) at the Department of Drug Sciences, University of Pavia since 2012.
- Prof. Grisoli teaching activity started with the courses of Pharmaceutical Microbiology and Antibiotic Resistance for the degree course in Pharmacy and Chemistry and Pharmaceutical Technology since 2009. Then, in addition with the course Microbiology for the degree course in Pharmacy since 2013.

He is also a member of the teaching staff of post-graduate School in Microbiology and Virology at the Faculty of Medicine, University of Pavia, since 2009.

RESEARCH FIELDS

- Evaluation of antimicrobial activity of glass surfaces with antimicrobial properties based on the tuned and controlled release of metal cations, in collaboration with Inorganic Nanochemistry Laboratory (inLAB) (Department of Chemistry)
- Evaluation of antimicrobial action of Gold nanorods (NR) and asymmetric nanoparticles (ANP) capped with a biocompatible polymer bearing binding groups for molecules and metal ions, in collaboration with Inorganic Nanochemistry Laboratory (inLAB) (Department of Chemistry)
- Evaluation of antimicrobial activity of medicinal plants and plant extracts used in popular medicine, in collaboration with Pharmaceutical Analysis Laboratory (PAL) (Drug Sciences Department)

- Study of pharmaceutical dosage forms for controlled release of antimicrobial agents, in collaboration with Biopharmaceutics and Formulation Development Laboratory (Drug Sciences Department)
- Assessment of microbial risk in work environments
- Study of pharmaceutical dosage forms for controlled release of antimicrobial agents
- Evaluation of antimicrobial activity of foods against caries and other mouth infections

FELLOWSHIPS/AWARDS

Best paper award for the outstanding paper "Comparison of functional and biological properties of chitosan and hyaluronic acid, to be used for the treatment of mucositis in cancer patients". Journal of Drug Delivery Science and Technology, 21(3): 241-247 (2011).

FUNDED PROJECTS (last (*number*) years)

CARIPO 2008 (Proposer: Prof. P. Pallavicini, Department of Chemistry Univ. of Pavia: Antimicrobial action of glass surfaces based on modulated and controlled release of metal cations

CARIPO 2010 (Proposer: Prof. P. Pallavicini, Department of Chemistry, Univ. of Pavia: "Gold nanorods (NR) and asymmetric nanoparticles (ANP) capped with a biocompatible polymer bearing binding groups for molecules and metal cations: pharmacological and thermal antimicrobial action activated by near-IR irradiation"

Grisoli's research activity is documented by **46** scientific papers, **54** communications to national and international congresses and **2** book chapters. Total citations **1044**; H-index **16**.

Scientific Publications (2012-2018)

1. Grisoli P., Rodolfi M., Chiara T., Zonta L. A., and Dacarro C. *Evaluation of microbiological air quality and of microclimate in university classrooms*. Environmental Monitoring and Assessment, 184 (7), pp 4171-4180 (2012).
2. Giacomo Dacarro, Lucia Cucca, Pietro Grisoli, Piersandro Pallavicini, Maddalena Patrini, Angelo Taglietti. *Monolayers of polyethilenimine on flat glass: a versatile platform for cations coordination and nanoparticles grafting in the preparation of antibacterial surfaces*. Dalton Transactions, 2012, 41 (8) pp. 2456-2463 (2012).
3. Taglietti, A, Diaz-Fernandez, YA, Amato, E, Cucca, Dacarro, G, Grisoli, P, Necchi, V, Pallavicini, P, Pasotti, L, Patrini, M. *Antibacterial Activity of Glutathione-Coated Silver Nanoparticles against Gram Positive and Gram Negative Bacteria*. Langmuir, 28(21), pp. 8140-8148 (2012).
4. Brusotti G, Cesari I, Gilardoni, G, Tosi, S, Grisoli P, Picco, A.M, Caccialanza G. *Chemical composition and antimicrobial activity of Phyllanthus muellerianus (Kuntze) Excel essential oil*. Journal of Ethnopharmacology, 142 (3), pp 657-662 (2012).
5. Gloria Brusotti, Mohammed Farhad Ibrahima, Alessandra Dentamaro, Gianluca Gilardoni, Solveig Tosi, Pietro Grisoli, Cesare Dacarro, Maria Lidia Guglielminetti, Faiq Hama Saeed Hussain, Gabriele Caccialanza, and Giovanni Vidari. *Chemical Composition and Antimicrobial Activity of the Volatile Fractions from Leaves and Flowers of the Wild Iraqi Kurdish Plant Prangos peucedanifolia Fenzl*. Chemistry and Biodiversity 10 (2) pp 274-280 (2013).
6. I. Cesari, M. Hoerle', C. Simoes-Pire, P. Grisoli, E. F. Queiroz, C. Dacarro, L. Marcourt, P. F. Moundipa, P. A. Carrupt, M. Cuendet, G. Caccialanza, J.L. Wolfender, G. Brusotti. *Anti-inflammatory, antimicrobial and antioxidant activities of Diospyros bipindensis (Gürke) extracts and its main constituents*. Journal of Ethnopharmacology 146 (1), pp 264-270 (2013).
7. Piersandro Pallavicini, Giacomo Dacarro, Pietro Grisoli, Carlo Mangano, Maddalena Patrini, Federica Rigoni, Luigi Sangaletti and Angelo Taglietti. *Coordination chemistry for antibacterial materials: a monolayer of a Cu²⁺ 2,2'-bipyridine complex grafted on a glass surface*. Dalton Transactions 42 (13), pp 4552-4560 (2013).
8. Giuseppina Sandri, Maria Cristina Bonferoni, Francesca D'Autilia, Silvia Rossi, Franca Ferrari, Pietro Grisoli, Milena Sorrenti, Laura Catenacci, Claudia Del Fante, Cesare Perotti, Carla Caramella. *Wound dressings based on silver sulfadiazine solid lipid nanoparticles for tissue repairing*. European Journal of Pharmaceutics and Biopharmaceutics 84 (1), pp 84-90 (2013)
9. Gloria Brusotti, Solveig Tosi, Aldo Tava, Anna M. Picco, Pietro Grisoli, Ilaria Cesari, Gabriele Caccialanza. *Antimicrobial and phytochemical properties of stem bark extracts from Piptadeniastrum africanum (Hook f.) Brenan*. Industrial Crops and Products 43 (1), pp 612- 616 (2013).
10. Taglietti, A., Diaz Fernandez, Y.A., Galinetto, P., Grisoli, P., Milanese, C., Pallavicini, P. *Mixing thiols on the surface of silver nanoparticles: Preserving antibacterial properties while introducing SERS activity* Journal of Nanoparticle Research 15 (11) (2013)

11. Sandri, G., Bonferoni, M.C., Ferrari, F., Rossi, S., Aguzzi, C., Mori, M., Grisoli, P., Caramella, C. Montmorillonite-chitosan-silver sulfadiazine nanocomposites for topical treatment of chronic skin lesions: In vitro biocompatibility, antibacterial efficacy and gap closure cell motility properties *Carbohydrate Polymers* 102 (1) PP. 970 – 977 (2014)
- 12. Cesari, I., Grisoli, P., Paolillo, M., Milanese, C., Massolini, G., Brusotti, G. Isolation and characterization of the alkaloid Nitidine responsible for the traditional use of *Phyllanthus muellerianus* (Kuntze) Excell stem bark against bacterial infections” *Journal of Pharmaceutical and Biomedical Analysis* Volume 87, Pages 218-228. (2014)
- 13. Brusotti, G., Andreola, F., Sferrazza, G., Grisoli, P., Merelli, A., Cuna, F.S.R.D., Calleri, E., Nicotera, G., Pierimarchi, P., Serafino, A. “In vitro evaluation of the wound healing activity of *Drypetes klainei* stem bark extracts” *Journal of Ethnopharmacology* Volume 175, 4, Pages 412-421. (2015)
- 14. Dorati, R., De Trizio, A., Genta, I., Grisoli, P., Merelli, A., Tomasi, C., Conti, B. “An experimental design approach to the preparation of pegylated polylactide-co-glicolide gentamicin loaded microparticles for local antibiotic delivery” *Materials Science and Engineering C* Volume 58, 1, Pages 909-917. (2016)
- 15. D'Agostino, A., Taglietti, A., Grisoli, P., Dacarro, G., Cucca, L., Patrini, M., Pallavicini, P. “Seed mediated growth of silver nanoplates on glass: Exploiting the bimodal antibacterial effect by near IR photo-thermal action and Ag⁺ release” *RSC Advances* Volume 6, Issue 74, Pages 70414-70423. (2016)
- 16. Agnese D'Agostino, Angelo Taglietti, Roberto Desando, Marcella Bini, Maddalena Patrini, Giacomo Dacarro, Lucia Cucca, Piersandro Pallavicini and Pietro Grisoli. Bulk Surfaces Coated with Triangular Silver Nanoplates: Antibacterial Action Based on Silver Release and Photo-Thermal Effect. *Nanomaterials*, 7(1), 7 (2017)
- 17. Tenci, M., Rossi, S., Aguzzi, C., Carazo, E., Sandri, G., Bonferoni, M.C., Grisoli, P., Viseras, C., Caramella, C.M., Ferrari, F. Carvacrol/clay hybrids loaded into in situ gelling films. *International Journal of Pharmaceutics*, Volume 531, Issue 2, , Pages 676-688 (2017)
- 18. Dacarro, G., Grisoli, P., Borzenkov, M., Milanese, C., Fratini, E., Ferraro, G., Taglietti, A., Pallavicini, P. Self-assembled monolayers of Prussian blue nanoparticles with photothermal effect. *Supramolecular Chemistry*, Volume 29, Issue 11, , Pages 823-833, (2017)
- 19. Pallavicini, P., Bassi, B., Chirico, G., Collini, M., Dacarro, G., Fratini, E., Grisoli, P., Patrini, M., Sironi, L., Taglietti, A., Moritz, M., Sorzabal-Bellido, I., Susarrey-Arce, A., Latter, E., Beckett, A.J., Prior, I.A.g, Raval, R.f, Diaz Fernandez. Modular approach for bimodal antibacterial surfaces combining photo-switchable activity and sustained biocidal release. *Scientific Reports, Open Access*, Volume 7, Issue 1, , Article number 5259, (2017)
- 20. Saporito, F., Sandri, G., Bonferoni, M.C., Rossi, S., Boselli, C., Cornaglia, A.I., Mannucci, B., Grisoli, P., Vigani, B., Ferrari, F. Essential oil-loaded lipid nanoparticles for wound healing. *International Journal of Nanomedicine Open Access*, Volume 13, 2018, Pages 175-186, (2018)