

Laura Pastorino

Curriculum vitae et studiorum

Present Position

Associate Professor of Bioengineering (SSD ING/IND-34) at the Department of Informatics, Bioengineering, Robotics and Systems Engineering, University of Genoa, Italy.

Associated researcher at the Institute of Materials for Electronics and Magnetism, Italian National Research Council, Italy.

April 2017- National Scientific Qualification for the position of Associate Professor (09-G2 Bioengineering).

Education

2000 – 2003: Ph.D. course in Biophysics at the Department of Biophysical, M&O Science and Technologies, University of Genoa, Italian National Research Council, ISMAC, Genoa (Prof. Gianna Costa), Louisiana Tech University (Prof. Yuri Lvov); Thesis title: “Nanobiocatalytic processes and their environmental applications” (supervisor: Prof. Claudio Nicolini; financial support from ABB Italia).

1999: M.D. in Chemical Engineering (mark: 110/110) at the University of Genoa, by defending the experimental thesis “Development of immobilization techniques of Penicillin G Acylase for the production of antibiotics by biotechnology” (supervisors: Prof. Vincenzo Tagliasco, Prof. Claudio Nicolini).

Work experience

2020: Co-Founder of Bio3DmatriX S.r.l Innovative start-up and Spinoff of UniGe, born in 2020 at DIBRIS, with the aim to develop innovative and highly versatile kits (platforms) for neurotoxicity studies.

April 2009-present: *User* at the European Synchrotron Radiation Facility (ESFR, Grenoble, France) on the characterization of multilayered nanostructures and their interaction with biomolecules.

01/11/2016 - 31/09/2019: **Assistant Professor** of Bioengineering (SSD ING/IND-34) at the Department of Informatics, Bioengineering, Robotics and Systems Engineering, University of Genoa, Italy.

01/12/2012 - 30/04/2014: *Research assistant* Department of Informatics, Bioengineering, Robotics and Systems Engineering, University of Genoa, Italy.

01/10/2003 - 30/11/2012: *Research*, Department of Communication, Computer and System Sciences, University of Genoa, Italy. (Maternity leave 19/11/2006 – 19/04/2007 and 07/12/2009 – 07/08/2010).

2004 – 2006: *Researcher* at the Fondazione EL.B.A. (Electronics Biotechnology Advanced) on the project “ORGANIC NANOTECHNOLOGIES AND NANOSCIENCES” FIRB 2001 and on the Research National Program “Biocatalysis” (BTA6 project).

2002: *Adjunct Research Faculty Member* at the Louisiana Tech University for nano-assembly and nano-particle research at the Institute for Micromanufacturing (Ruston, LA, USA).

2001: research member at the National Institute of Biostructures & Biosystems on the CNR5% project “NANOTECHNOLOGY”.

Teaching experience

2021-: Professor for the teaching “Technologies for Personalized Medicine”.

2021-: Professor for the teaching “Cellular and Tissue Engineering”.

2021-: Professor for the teaching “Chemical Bioengineering”.

2013-2020: Professor for the teaching “Molecular, Cellular and Tissue Engineering”, Master degree in Bioengineering.

2017-2020: Professor for the teaching “Bionanotechnology”, Master degree in Bioengineering.

2015 - present: PhD Board Member, Bioengineering and Robotics, (XXXI, XXXII).

Supervisor of several students for Laurea Thesis, Ph.D. students, Post-Doc Students.

Career related activities

- [Member of the Beam Time Allocation Panel](#) at the European Synchrotron Radiation Facility (ESRF), Grenoble, France.
- [Project evaluator](#) for single stage grant applications for the [European Union H2020](#). Theme: Grants for bridging the gap between nanotechnology research and markets.
- [Project evaluator](#) for stage 1 and stage 2 grant applications for the [European Union 7th Framework](#), Theme: Nanosciences, Nanotechnologies, Materials and new Production Technologies.
- [Project evaluator](#) for single stage grant applications for the [European Union 7th Framework](#), Theme: Food, Agriculture and Fisheries, and Biotechnology.

- [Project evaluator](#) for the [Czech Science Foundation](#) (public funding agency in the Czech Republic).
- [Project evaluator](#) for the [Polish National Center for Research and Development](#), within “Prevention practices and treatment of civilization diseases - STRATEGMED” Programme.
- [Member of the local organizing committee](#) of the European Conference on Organised Films, ECOF 14 - Genova - Italy, June 29 - July 2 2015.
- [Member of the local organizing committee](#) of IEEE NANO 2009, July 26-30 2009, Genoa, Italy.

Editorial activity

- [Associate Editor](#) of BioNanoScience (Springer).

Grants

2021: “Mini-brain technology”, Proof of Concept-Build up your tech granted by UniGe.

2020-2022: "Development microbial nanoformulations against surface contaminations to prevent and control nosocomial infections spread", granted by Fondazione Compagnia di San Paolo, role: UniGe Team Leader

2017: Beam-time allocated on the ID10B Troika II Beamline, at the European Synchrotron Radiation Facility (ESRF), Grenoble, France. Proposal: “Coherent X-ray diffraction imaging (CXDI) to study the structure of nanoengineered polymeric capsules”, Proposer Dr. S. Erokhina, co-proposer Dr. **L. Pastorino**, Prof. V. Erokhin.

2013: Beam-time allocated on the ID10B Troika II Beamline, at the European Synchrotron Radiation Facility (ESRF), Grenoble, France. Proposal:” Reale time monitoring of structure variation of protein-containing layers and capsules”, Proposer Dr. **L. Pastorino**, co-proposers Prof. V. Erokhin, Dr. S. Erokhina.

2011: Beam-time allocated on the ID10B Troika II Beamline, at the European Synchrotron Radiation Facility (ESRF), Grenoble, France. Proposal: “Reflectivity and X-ray fluorescence study of collagen – collagenolytic enzymes matrix metalloproteinases in monolayers at the liquid-solid interface”, Proposer Prof V. Erokhin, co-proposers Dr **L. Pastorino**, Dr. S. Erokhina.

Projects involvement

Involved in numerous National and International research projects, such as:

- [Biomimetic coatings for friction and fouling reduction](#), Innovation Challenge FINCANTIERI.
 - [IDRO-RIN TRAN-GENESI](#), MIUR, coordinated by SIIT.
 - [LANIR](#), “Real Time Label Free Nanoscopy Using Infra Red Absorption”, granted by the *European Commission -VII Framework*, Activity area: Nanosciences, Nanotechnologies, Materials and new Production Technologies.
 - [PRIN 2012](#), “Nanomed”, granted by the *Italian Ministry of University and Research*.
 - [TASNANO](#), “Tools and Technologies for the Analysis and Synthesis of Nano Structures”, granted by the *European Commission -VI Framework*, Activity area: Nanotechnologies and nano-sciences, knowledge-based multifunctional materials and new production processes and devices.
 - [CARDIOWORKBENCH](#) (coordinator’s group), “Drug Design for Cardiovascular Diseases: Integration of In Silico and in Vitro”, granted by the *European Commission-VI Framework*, Activity area: Life sciences, genomics and biotechnology for health.
 - [DEVELOPMENT OF NEW TECNOLOGIES FOR THE PRODUCTION OF BIOLOGICAL MOLECULES WITH ANTICANCER ACTION](#), granted by *Advanced Biotechnology Center, Genoa, Italy*.
 - [BIOREACTORS AND BIOSENSORS](#), granted by *Tattile S.r.l, Italy*.
 - [ORGANIC NANOTECHNOLOGIES AND NANOSCIENCES](#), FIRB project granted by the *Italian Ministry of University and Research*.
 - Research National Program “[BIOCATALYSIS](#)”, BTA6 project, granted by the *Italian Ministry of University and Research*.
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Scientific Interests

Design of soft 3D compisite hydrogels for neuronal engineering. Fabrication and characterization of protein thin films by Langmuir-Blodgett and self-assembly techniques for biocatalytic and biomedical applications; Fabrication and characterization of nano-biosensors, Fabrication and characterization of stimuli responsive nanosystems for drug delivery. Characterization of biomolecule interactions by synchrotron radiation.

Publications on International Journals

- Arnaldi, P., Di Lisa, D., Maddalena, L., Carosio, F., Fina, A., Pastorino, L., & Monticelli, O. (2021). A facile approach for the development of high mechanical

- strength 3D neuronal network scaffold based on chitosan and graphite nanoplatelets. *Carbohydrate Polymers*, 271, 118420.
- Vernazza, S., Dellacasa, E., Tirendi, S., Pastorino, L., & Bassi, A. M. (2021). Lipoperoxide Nanoemulsion as Adjuvant in Cisplatin Cancer Therapy: In Vitro Study on Human Colon Adenocarcinoma DLD-1 Cells. *Nanomaterials*, 11(6), 1365.
 - Ferrari, P. F., Zattera, E., Pastorino, L., Perego, P., & Palombo, D. (2021). Dextran/poly-L-arginine multi-layered CaCO₃-based nanosystem for vascular drug delivery. *International Journal of Biological Macromolecules*, 177, 548-558.
 - Kudryavtseva, V., Boi, S., Read, J., Guillemet, R., Zhang, J., Udalov, A., ... & Sukhorukov, G. B. (2021). Biodegradable defined shaped printed polymer microcapsules for drug delivery. *ACS Applied Materials & Interfaces*, 13(2), 2371-2381.
 - Kudryavtseva, V., Boi, S., Read, J., Gould, D., Szewczyk, P. K., Stachewicz, U., ... & Sukhorukov, G. B. (2021). Micro-sized "pelmeni"-A universal microencapsulation approach overview. *Materials & Design*, 202, 109527.
 - Erokhina, S., Pastorino, L., Di Lisa, D., Kiiamov, A. G., Tayurskii, D. A., Iannotta, S., ... & Faizullina, A. R. (2021). 3D structure reconstruction of nanoengineered polymeric capsules using Coherent X-Ray diffraction imaging. *MethodsX*, 8, 101230.
 - Arnaldi, P., Carosio, F., Di Lisa, D., Muzzi, L., Monticelli, O., & Pastorino, L. (2020). Assembly of chitosan-graphite oxide nanoplatelets core shell microparticles for advanced 3D scaffolds supporting neuronal networks growth. *Colloids and Surfaces B: Biointerfaces*, 196, 111295.
 - Arnaldi, Pietro, Laura Pastorino, and Orietta Monticelli. "On an effective approach to improve the properties and the drug release of chitosan-based microparticles." *International Journal of Biological Macromolecules* 163 (2020): 393-401.
 - Boi, S., Rouatbi, N., Dellacasa, E., Di Lisa, D., Bianchini, P., Monticelli, O., Pastorino, L. (2020). Alginate microbeads with internal microvoids for the sustained release of drugs. *International Journal of Biological Macromolecules*, 156, pp. 454-461.
 - Stanciu, S.G., Tranca, D.E., Pastorino, L., Boi, S., Song, Y.M., Yoo, Y.J., Ishii, S., Hristu, R., Yang, F., Bussetti, G., Stanciu, G.A.(2020). Characterization of Nanomaterials by Locally Determining Their Complex Permittivity with Scattering-Type Scanning Near-Field Optical Microscopy. *ACS Applied Nano Materials*, 3 (2), pp. 1250-1262.
 - Damanik, F.F.R., Brunelli, M., Pastorino, L., Ruggiero, C., Van Blitterswijk, C., Rotmans, J., Moroni, L. (2020). Sustained delivery of growth factors with high loading efficiency in a layer by layer assembly. *Biomaterials Science*, 8 (1), pp. 174-188.

- Boi, S., Pastorino, L., Monticelli, O. (2019). Multi applicable stereocomplex PLA particles decorated with cyclodextrins. *Materials Letters*, 250, pp. 135-138.
- Dabiri, S.M.H., Lagazzo, A., Aliakbarian, B., Mehrjoo, M., Finocchio, E., Pastorino, L. (2019). Fabrication of alginate modified brushite cement impregnated with antibiotic: Mechanical, thermal, and biological characterizations. *Journal of Biomedical Materials Research - Part A*, 107 (9), pp. 2063-2075.
- Boi, S., Dellacasa, E., Bianchini, P., Petrini, P., Pastorino, L., Monticelli, O.(2019). Encapsulated functionalized stereocomplex PLA particles: An effective system to support mucolytic enzymes. *Colloids and Surfaces B: Biointerfaces*, 179, pp. 190-198.
- Pastorino, L., Bersani, C., Erokhina, S., Erokhin, V., Sacile, R. (2019). Playing against nature: Risk averse behaviour of *Physarum polycephalum*. *International Journal of Unconventional Computing*, 14 (5-6), pp. 385-395.
- Boi, S., Dellacasa, E., Rouatbi, N., Monticelli, O., Pastorino, L. (2019). Multicompartment hydrogels for the local delivery of chemotherapeutic drugs. *Studies in Health Technology and Informatics*, 261, pp. 261-265.
- Pacheco, D.P., Butnarusu, C.S., Briatico Vangosa, F., Pastorino, L., Visai, L., Visentin, S., Petrini, P. (2019). Disassembling the complexity of mucus barriers to develop a fast screening tool for early drug discovery. *Journal of Materials Chemistry B*, 7 (32), pp. 4940-4952.
- Tedesco, M.T, Di Lisa, D., Massobrio, P., Colistra, N., Pesce, M., Catelani, T., Dellacasa, E., Raiteri, R., Martinoia, S., Pastorino, L. (2018). Soft chitosan microbeads scaffold for 3D functional neuronal networks. *Biomaterials*, 156, 159-171.
- Eleuteri, M., Pastorino, L., Monticelli, O. (2018). On the degradation properties of electrospun fibers based on PLLA: The effect of a drug model modification. *Polymer Degradation and Stability*, 153, 109-117.
- Mouras, R., Noor, M. R., Pastorino, L., Bagnoli, E., Mani, A., Durack, E., ... & Soulimane, T. (2018). Image-Based Tracking of Anticancer Drug-Loaded Nanoengineered Polyelectrolyte Capsules in Cellular Environments Using a Fast Benchtop Mid-Infrared (MIR) Microscope. *ACS Omega*, 3(6), 6143-6150.
- Dellacasa, E., Forouharshad, M., Rolandi, R., Pastorino, L., & Monticelli, O. (2018). Poly (styrene-co-maleic anhydride) nanoparticles as protein carriers. *Materials Letters*, 220, 241-244.
- Marrella, A., Lagazzo, A., Dellacasa, E., Pasquini, C., Finocchio, E., Barberis, F., Pastorino, L., Giannoni, P., Scaglione, S. (2018). 3D Porous Gelatin/PVA Hydrogel as Meniscus Substitute Using Alginate Micro-Particles as Porogens. *Polymers*, 10(4), 380.
- Dabiri, S. M. H., Lagazzo, A., Barberis, F., Shayganpour, A., Finocchio, E., & Pastorino, L. (2017). New in-situ synthesized hydrogel composite based on alginate

and brushite as a potential pH sensitive drug delivery system. *Carbohydrate Polymers*, 177, 324-333.

- Ferrari, P. F., Aliakbarian, B., Zattera, E., Pastorino, L., Palombo, D., & Perego, P. (2017). Engineered CaCO₃ Nanoparticles with Targeting Activity: A Simple Approach for a Vascular Intended Drug Delivery System. *The Canadian Journal of Chemical Engineering*, Volume 95, Issue 9, September 2017, Pages 1683-1689.
- L. Pastorino, E. Dellacasa, P. Petrini, O. Monticelli, (2017). Stereocomplex poly (lactic acid) nanocoated chitosan microparticles for the sustained release of hydrophilic drugs. *Materials Science and Engineering: C*, 76, 1129-1135.
- L. Gardella, M. Forouharshad, L. Pastorino, O. Monticelli, (2017). Hyperbranched PDLA-polyglycerol: A novel additive for tuning PLLA electrospun fiber degradation and properties. *European Polymer Journal*, 91, 21-30.
- V. Vergaro, P. Papadia, P. Petrini, F.P. Fanizzi, S.A. De Pascali, F. Baldassarre, L. Pastorino, G. Ciccarella, (2017). Nanostructured polysaccharidic microcapsules for intracellular release of cisplatin. *International Journal of Biological Macromolecules*, 99, 187-195.
- Habibi, N., Pastorino, L., Babolmorad, G., Ruggiero, C., Guda, T., & Ong, J. L. (2017). Polyelectrolyte multilayers and capsules: S-layer functionalization for improving stability and biocompatibility. *Journal of Drug Delivery Science and Technology*, 38, 1-8.
- Pastorino, L., Dellacasa, E., Dabiri, M. H., Fabiano, B., & Erokhina, S. (2016). Towards the Fabrication of Polyelectrolyte-Based Nanocapsules for Bio-Medical Applications. *BioNanoScience*, 6(4), 496-501.
- Stanciu, S. G., Tranca, D. E., Ruggiero, C., Stanciu, G. A., Dellacasa, E., Antipov, A., ... & Pastorino, L. (2016). Combined far-field, near-field and topographic imaging of nano-engineered polyelectrolyte capsules. *Materials Letters*, 183, 105-108.
- Seyed Mohammad Hossein Dabiri, Alberto Lagazzo, F. Barberis, E. Finocchio, L. Pastorino (2016). Characterization of alginate-brushite in-situ hydrogel composites. *Materials Science and Engineering C*, 67(1), 502–510.
- Lagazzo, E. Finocchio, P. Petrini, C. Ruggiero, L. Pastorino. (2016). Hydrothermal synthesis of pectin derived nanoporous carbon material. *Materials Letters*, 171, 212-215.
- E. Dellacasa, L. Zhao, G. Yang, L. Pastorino, G. Sukhorukov (2016). Fabrication and characterization of novel multilayered structures by stereocomplexion of poly (D-lactic acid)/poly (L-lactic acid) and self-assembly of polyelectrolytes. *Beilstein Journal of Nanotechnology*, 7(1), 81-90.
- L. Pastorino, S. Erokhina, C. Ruggiero, V. Erokhin, P. Petrini (2015). Fabrication and Characterization of Chitosan and Pectin Nanostructured Multilayers, *Macromolecular Chemistry and Physics*, 216, pp. 1067–1075.

- S. Erokhina, E. Dellacasa, V. Sorokin, L. Pastorino (2015). On the decoration of layer-by-layer films for the x-ray reflectivity study at the solid-liquid interface. *BioNanoScience*, Volume 5, Issue 1, pp 39-41.
- M. Painsi, B. Aliakbarian, A. A. Casazza, Patrizia Perego, Carmelina Ruggiero, and L. Pastorino (2015). Chitosan/dextran multilayer microcapsules for polyphenols co-delivery. *Materials Science and Engineering: C*, 46, pp. 374–380.
- S. Erokhina, L. Pastorino (2015). Nanoengineered polymeric capsules as elements of unconventional computing systems. *Physica status solidi (c)*, 12, pp. 175-180.
- Baj-Rossi, E. G. Kilinc, S. S. Ghoreishizadeh, D. Casarino, T. Rezzonico Jost, C. Dehollain, F. Grassi, L. Pastorino, G. De Micheli and S. Carrara (2014). Full Fabrication and Packaging of an Implantable Multi-panel Device for Monitoring of Metabolites in Small Animals. *Biomedical Circuits and Systems, IEEE Transactions on*, 8, pp. 636-647.
- L. Pastorino, E. Dellacasa, M.R. Noor, T. Soulimane, P. Bianchini, F. D'Autilia, A. Antipov, A. Diaspro, S.A.M. Tofail, C. Ruggiero (2014). Multilayered polyelectrolyte microcapsules: interaction with the enzyme cytochrome c oxidase. *PLOS ONE*, 9, Issue 11, Article number e112192.
- L. Pastorino, E. Dellacasa, S. Scaglione, M. Giulianelli, F. Sbrana, M. Vassalli, C. Ruggiero (2014). Oriented collagen nanocoatings for tissue engineering. *Colloids and Surfaces B: Biointerfaces*, 114, pp. 372-378.
- N. Habibi, L. Pastorino, C. Ruggiero (2014). Functionalized biocompatible polyelectrolyte multilayers for drug delivery: In situ investigation of mechanical properties by dissipative quartz crystal microbalance. *Materials Science and Engineering: C*, 35, pp. 15-20.
- S. Erokhina, O. Konovalov, P. Bianchini, A. Diaspro, C. Ruggiero, V Erokhin, L. Pastorino (2013). Release kinetics of gold nanoparticles from collagen microcapsules by total reflection X-ray fluorescence. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*. 417, pp. 83-88.
- L. Pastorino, E. Erokhina, V. Erokhin (2013). Smart Nanoengineered Polymeric Capsules as Ideal Pharmaceutical Carriers, *Current Organic Chemistry*, 17, pp 58-64.
- N. Habibi, L. Pastorino, O.H. Sandoval, C. Ruggiero (2013). Polyelectrolyte based molecular carriers: The role of self-assembled proteins in permeability properties. *Biomaterials Applications*, 28, pp 262-269.
- M. Salerno, F. Caneva Soumetz, L. Pastorino, N. Patra, A. Diaspro, C. Ruggiero (2013). Adhesion and Proliferation of Osteoblast-like Cells on Anodic Porous Alumina Substrates with Different Morphology, *IEEE Transactions on NanoBioscience*, 12, pp. 106-111.

- L. Pastorino, S. Erokhina, P. Bianchini, O. Konovalov, A. Diaspro, C. Ruggiero (2011). Permeability variation study in collagen-based polymeric capsules, *BioNanoScience* 1, pp. 192–197.
- N. Habibi, L. Pastorino, F. Caneva Soumetz, F. Sbrana, R. Raiteri and C. Ruggiero (2011) Nanoengineered Polymeric S-layers Based Capsules with Targeting Activity, *Colloids and Surfaces B: Biointerfaces*, *Colloids Surf B Biointerfaces* 88, pp.366-372.
- L. Pastorino, S. Erokhina, F. Caneva Soumetz, P. Bianchini, O. Konovalov, A. Diaspro, C. Ruggiero, V. Erokhin (2011). Collagen containing microcapsules: Smart containers for disease controlled therapy, *Journal of Colloid and Interface Science* 357, pp. 56-62.
- F. Caneva Soumetz, J. F. Saenz, L. Pastorino, C. Ruggiero, D. Nosi, and R. Raiteri (2010). Investigation of Integrin Expression on the Surface of Osteoblast-like Cells by Atomic Force Microscopy, *Ultramicroscopy*, vol 110, pp. 330-338, 2010.
- L. Pastorino, S. Erokhina, F. Caneva Soumetz, and C. Ruggiero (2009). Paclitaxel-containing nano-engineered polymeric capsules towards cancer therapy. *Journal of Nanoscience and Nanotechnology* vol. 9, pp. 6753-6759.
- M. Giacomini, L. Pastorino, F. Caneva Soumetz, J. Mielczarski, E. Mielczarski, Ivo Rangelow, Teodor Gotszalk, Nikos Glezos, Ejaz Huq, C. Ruggiero (2009). Data modeling for Tools and Technologies for the Analysis and Synthesis of NANOstructures (TASNANO) project. *Journal of Information Technology Research*, vol. 2 (3), pp. 49-79.
- V. Sivozhelezov, D. Bruzzese, L. Pastorino, E. Pechkova, C. Nicolini (2009). Increase of catalytic activity of lipase towards olive oil by Langmuir-film immobilization of lipase. *Enzyme and Microbial Technology*, vol. 44, pp. 72–76.
- 26. L. Pastorino, F. Caneva Soumetz, C. Ruggiero (2008). Fabrication and characterization of carbon nanotubes based coatings for the repair of cartilage tissue. *Tissue Engineering*, vol. 14 (5), pp. 852-853.
- F. Caneva Soumetz, L. Pastorino, R. Raiteri and C. Ruggiero (2008). Single Integrin Detection on the Surface of Osteosarcoma Derived Cells by means of Functionalized AFM probes. *Tissue Engineering, Part A* vol. 14(5), pp. 777.
- F. Caneva Soumetz, L. Pastorino, C. Ruggiero (2008). Human osteoblast-like cells response to nanofunctionalised surfaces for tissue engineering. *Journal of Biomedical Materials Research: Part B - Applied Biomaterials*, vol 84B, Issue 1, pp. 249-255.
- F. Caneva Soumetz, L. Pastorino, C. Ruggiero (2007). Osteoblast-like cells response to nanostructured biomimetic coatings. *Tissue Engineering*, 13, p. 1740.
- S. Erokhina, L. Pastorino, F. Caneva Soumetz and C. Ruggiero (2007). Nanoengineered Polymeric Capsules for Cancer Therapy. *Tissue Engineering*, 13, pp. 1733-1734.

- L. Pastorino, F. Caneva Soumetz, M. Giacomini, C. Ruggiero (2006). Development of a piezoelectric immunosensor for Paclitaxel measurement. *Journal of Immunological Methods*, 313, pp. 119-198.
- L. Pastorino, F. Caneva Soumetz, C. Ruggiero (2006). Nanofunctionalisation for the treatment of peripheral nervous system injuries. *IEE Proceedings Nanobiotechnology*, 153/2, pp. 16-20.
- L. Pastorino, F. Pioli, M. Zilli, A. Converti, C. Nicolini (2004). Lipase-Catalyzed Degradation of Polycaprolactone. *Enzyme and Microbial Technology*, 35/4, p. 321-326.
- V. T. Troitsky, T. S. Berzina, L. Pastorino, E. Bernasconi, C. Nicolini (2003). A new approach to the deposition of nanostructured biocatalytic films. *Nanotechnology*, 14, p. 597-602.
- M. Antonini, P. Ghisellini, L. Pastorino, C. Nicolini, C. Paternolli (2003). Preliminary electrochemical characterization of cytochrome P4501A2 – clozapine interaction. *IEE Proceedings – Nanobiotechnology*, 150, p. 31-34.
- L. Pastorino, S. Disawal, C. Nicolini, Y. M. Lvov, V. V. Erokhin (2003). Complex catalytic colloids on the basis of firefly luciferase as optical nanosensor platform, *Biotechnology and Bioengineering* 84, p. 286-291.
- L. Pastorino, C. Nicolini (2002) .Langmuir-Blodgett films of Lipase for biocatalysis. *Materials Science & Engineering C-Biomimetic and Supramolecular Systems (C)*, 907, p. 419-422.
- L. Pastorino, T. S. Berzina, V. I. Troitsky, M. P. Fontana, E. Bernasconi, C. Nicolini (2002). Biocatalytic LB assemblies based on Penicillin G Acylase. *Colloids and Surfaces B: Biointerfaces*, Vol. 23, p. 357-363.
- L. Pastorino, T. S. Berzina, V. I. Troitsky, E. Bernasconi, C. Nicolini (2002). Application of monolayer engineering for immobilization of Penicillin G Acylase, *Colloids and Surfaces B: Biointerfaces*, 23, p. 289-293.

Book chapters

- L. Pastorino, S. Erokhina, “Protein thin films: sensing elements for sensors” in “Nanosensors: Theory and Applications in Industry, Healthcare and Defense” (ISBN 9781439807361), edited by Taylor and Francis, 2010 USA.
- L. Pastorino, S. Erokhina, “Nanobiocatalytic systems: thin films of enzymes” in “Biocatalysis Research Progress” (ISBN: 978-1-60456-619-2) edited by Nova Science Publishers Inc., Hauppauge (NY), 2008 USA.

Invited presentations

- L. Pastorino, “Nature inspired systems”, Kazan Federal University, Kazan, Russia, September 25th, 2015.

- L. Pastorino, “Smart containers for drug delivery and unconventional computing” 4th International Conference on Science and Applied Research “Post-Genome Methods of Analysis in Biology and Laboratory and Clinical Medicine”, Kazan, Russia, October 29th – November 1st, 2014.
- L. Pastorino, “ Drug delivery in cancer therapy”, Annual School of the Italian Society of Biomaterials, 15-17 July, 2013 Ispra (Na), Italy.
- L. Pastorino, “Langmuir-Blodgett technology and functional enzymes”, within the INTERNATIONAL XXII EL.B.A. NANOFORUM on “Nanotechnology and protein microarrays: label free functional proteomics”, October 5 2009, Genoa, Italy.
- L. Pastorino, “Ultrathin films of biomolecules in healthcare”, within the tutorial “Nanobiotechnology for healthcare: techniques and applications”, IEEE NANO 2009, July 26-30 2009, Genoa, Italy.
- L. Pastorino, “Nanostructured biocatalytic films”, Proteomics and Synchrotron Radiation/Organic Electronics, December 6-8 2001, Moscow, Russia.

Communications presented at international conferences

- Stanciu, S.G., Tranca, D.E., Pastorino, L., Boi, S., Song, Y.M., Yoo, Y.J., Ishii, S., Yang, F., Wu, A., Hristu, R., Stanciu, G.A. (2019). Quantitative imaging of advanced nanostructured materials with scattering-type scanning near field optical microscopy. Proceedings of SPIE - The International Society for Optical Engineering, 11207, art. no. 112071K.
- 16th International Conference on Wearable, Micro & Nano technologies for Personalized Health, Genoa, Italy, 10 – 12 June 2019. "Active food packaging based on biopolymeric nanocomposite films"
- Lazarova, E., Pastorino, L., Pedrelli, F., Bisio, A., Giacomini, M. (2019). A New Technological Tool to Manage Edible Flowers for Health Purposes: The INTERREG ALCOTRA ANTEA project. Pan American Health Care Exchanges, PAHCE, 2019-March, art. no. 8717337.
- E. Dellacasa, L. Pastorino, C. Scanarotti, S. Vernazza, A. M. Bassi, R. Rolandi, C. Ruggiero, Peroxidated Olive Oil Nanoemulsion for Cancer Targeted Therapy, IEEE Engineering in Medicine and Biology Society, Milano, Italy, August 25-29, 2015.
- E. Dellacasa, L. Zhao, L. Pastorino, G. Sukhorukov, Fabrication and characterization of a novel multilayered structure by Poly(lactic acid) and polyelectrolytes interaction, 14th European Conference on Organized Films, ECOF-14, Genova, Italy, June 29 - July 2, 2015.
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