

UNIVERSITY OF MILAN

Public selection for recruiting No.1 research associate(s) under art.24, paragraph 3.a, of Law No.240/2010 for competition sector 02/B1 – EXPERIMENTAL PHYSICS OF MATTER, (scientific-disciplinary sector FIS/03 - PHYSICS OF MATTER) at the Department of PHYSICS, to carry out research bound to topics related to innovation issues, as provided for by Ministerial Decree No.1062/2021 of 10 August 2021 (published on the University of Milan website in date 04.10.2021)

Competition code 4866

ELISA SOGNE**CURRICULUM VITAE****1. PERSONAL DATA**

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| SURNAME | SOGNE |
| NAME | ELISA |
| DATE OF BIRTH | 25.12.1983 |

2. EDUCATION

- **Jan 2011 - 18 March 2015 - Ph.D. in Medical Nanotechnology, Università degli Studi di Milano and Scuola Europea di Medicina Molecolare, UNIMI-SEMM**
Dissertation: “Novel platform for biosensing application based on cluster-assembled materials”, Supervisor: Prof. Paolo Milani
- **23 December 2009 - Master Degree in Physics Engineering (major in Micro and Nano technologies), Politecnico di Milano**
Thesis title: “Development of a microfluidic PCR device”, Supervisor: Prof. Riccardo Bertacco
- **27 September 2006 - Bachelor Degree in Physics Engineering, Politecnico di Milano**
Thesis title: “Superconduttività: fenomenologia ed effetto Meissner”, Supervisor: Prof. Ermanno Pinotti.

3. RESEARCH EXPERIENCE

- **Mar 2015-Nov 2019, Postdoctoral fellow at NANOstructures & Biotech Laboratory (NABLA) Division of Biological and Environmental Science and Engineering, King Abdullah University of Science and Technology (KAUST), Saudi Arabia.** Research projects: “Electron Microscopy characterization of nanoporous and magnetic samples” and “Mouse brain tissue 3D ultrastructure

characterization". Group Leader: Prof. Andrea Falqui. Outcome: 14 journal publications (Refs. 1-4, 6-10, 12, 15-18 in the "Publication List") and 1 book chapter (Ref. 24).

- **Jan 2011-Mar 2015, *Ph.D. Student*, Interdisciplinary Centre for Nanostructured Materials and Interfaces (CIMaNa), University of Milan, and Fondazione Filarete, Milan, Italy.** Research Project: "Development and characterization of nanostructured materials for biosensing application" work in part supported by Cariplo Foundation (Grant No. 2012-0907). Group Leader: Prof Paolo Milani. Outcome: 9 journal publications (Refs. 5, 11, 13, 14, 17-21 in the "Publication List").
- **Feb 2010-Dec 2010, *Research Assistant*, Laboratory for Nano Epitaxial Structures for Silicon and Spintronic (L-NESS), Politecnico di Milano, Italy.** Research Project: "Spintronic biosensor for medicine". Group Leader: Prof Riccardo Bertacco. Outcome: 2 scientific papers published (Refs. 22,23 in the "Publication List").
- **Nov 2008-Aug 2009, *Visiting Student*, Technical University of Denmark, Department of micro and nanotechnologies.** Research project: "Development of a microfluidic PCR device". Supervisor: Minqiang Bu. Outcome: 1 conference proceeding (Ref. C16 in the "Publication List").

4. RESEARCH ACTIVITIES AND COLLABORATIONS

My research activity can be framed in two macro-areas that are described as follows.

4.1. Development of microfabrication processes and thin film deposition for the realization of devices and their implementation in the biological environment through the design, fabrication and testing of a dedicated platform. In this area, I gained relevant **experience** in **microfabrication** by optical/soft lithography and thin film deposition. In particular, the following sub-topics have been the focus of my research.

4.1.1: Development of a platform for bio-sensing application based on cluster-assembled thin films. In this context, during my *Ph.D.*, I was responsible for the Supersonic Cluster Beam Deposition (SCBD) system for the fabrication of nanostructured thin films. In particular, I optimized the process for Zirconia cluster-assembled films - I devised and developed a test platform for bacteria detection based on Zirconia films.

4.1.2: Development of microfabrication processes and thin film deposition to realize magnetic sensors, lab-on-chip and their implementation. In my initial research during my master's, I focused on designing and fabricating the Polymerase Chain reaction (PCR) chip for DNA amplification. My activity was twofold: first, the optimization of heaters and chamber design through finite element analysis (COMSOL Multiphysics) simulations; second, the fabrication (by optical lithographic processes, metal e-beam evaporation and PDMS moulding) and implementation of the chip into the external setup. Moreover, in the Spintronic Biosensors for Medicine project, I contributed fabricating magnetic tunnelling junction (MTJ) sensors and magnetic nanostructures as actuators for manipulating biological entities attached to magnetic particles through magnetic wall domains displacements. In particular, I developed optical

lithographic processes for the realization of these magnetic platforms, and I integrated the devices into the biological environment through the design, fabrication and testing of microfluidic channels.

4.2. Advanced electron microscopy techniques for the characterization of organic and inorganic materials. I am an experienced user of several scanning electron microscopes (SEM) with relative *in-situ* technique (heating, chemical analysis), focused ion beam (FIB)-SEM and serial block-face (SBF)-SEM, including imaging software for 2D and 3D imaging analysis (e.g., ImageJ, Ilastik, AVIZO). A summary of my research in this area is reported below.

4.2.1: Electron Microscopy Characterization of nanoporous and magnetic materials. In this context, I characterized nanoporous materials (i.e., silicon and gold) at the micro and nanoscale. I explored their volume structure upon isothermal treatment by combining *in-situ* heating and imaging in Environmental Scanning Electron Microscope (ESEM) and 3D reconstruction by Focused Ion Beam (FIB)-SEM and Serial Block Face (SBF)-SEM to understand the behaviour in view of design optimization and application possibilities. The reconstruction and analysis of the volume and relative porosity has been performed by segmenting every single section by Ilastik and AVIZO software. Moreover, I investigated the morphology, crystalline structure and composition of magnetic materials, particularly magnetic nanoparticles, by EM and EDS analysis.

4.2.2: Electron Microscopy Mouse brain tissue 3D ultrastructure characterization. Within the project to enlighten the 3D ultrastructure of the central nervous system (CNS) related to Huntington's disease, I worked on the serial imaging acquisition by FIB/SBF-SEM and volume reconstruction of mouse brain tissue to study the role of Astrocytes and Glycogen-Derived Lactate in Learning-Dependent Synaptic Stabilization.

4.2 External collaborations

- Department of Mechanical, Chemical and Materials Engineering - Università degli Studi di Cagliari, Professor Francesco Delogu
- Department of Chemistry – Università degli Studi di Torino, Professor Paola Rizzi
- Department of Physics – Università degli Studi di Cagliari, Dr. Guido Mula
- Department of Biosciences – Università degli Studi di Milano, Professor Elena Cattaneo
- Department of Pharmaceutical Sciences - Università degli Studi di Milano, Professor Maria Luisa Gelmi
- Department of Veterinary Medicine – Università degli Studi di Milano, Professor Gabriella Tedeschi
- Istituto di Chimica del Riconoscimento Molecolare (ICRM), Milano, Dr. Marcella Chiari
- International Foundation of Medicine (IFOM), Milano, Prof. Francesco Blasi

5. PARTECIPATION IN PROJECTS

- **Cariplo Foundation** Grant No. 2012-0907 – “Development of an innovative user-friendly colorimetric biosensor based on aptamer functionalized nanomaterials for the detection of *Staphylococcus aureus* from different biological sources”. Professor Maria Luisa Gelmi.
- **FIRB-FiR10** - FIRB bando Futuro in Ricerca 2010 – “Ossidi Nanostrutturati: Multi-funzionalità e applicazioni”, Professor Cristina Lenardi.
- **European Project** (contract number 224306 for Large-scale integrating project (IP)) – “Laboratory Skin Patches and Smart Cards based on foils and compatible with a smartphone”, Professor Anders Wolff.

6. TEACHING AND STUDENTS SUPPORT

- In **2017** and **2019**, I was responsible for the theoretical and practical lecture (24 hours) dedicated to EM imaging technique, giving hands-on training on SEM within the Bioscience Course: *Biomolecule Structure and Function I* and *Foundations in Bioimaging* at KAUST, Saudi Arabia
- In **2016** I was in charge of the two-day (12 hours) practical session on Zeiss Merlin SEM and FEI Tecnai Twin TEM within the *Molecular & Cellular Bioimaging Summer Program* at KAUST, Saudi Arabia.
- **2016** - Shatha Hamdan AL Abbadi, Master of Science in Bioscience, KAUST, Saudi Arabia
Thesis: Ultrastructural Analysis of Human Breast Cancer Cells during Their Overtime Interaction with Cerium Oxide Nanoparticles.
- **2016** - Danya S. Aljishi, Saudi Research Science Institute (SRSI) summer research program student.
- **2017** – Bader Aloufi, Master of Science in Bioscience, KAUST, Saudi Arabia
Thesis: Investigating Ceria Nanocrystals Uptake by Glioblastoma Multiforme Cells and its Related Effects: An Electron Microscopy Study.

7. ORAL PRESENTATION GIVEN AT INTERNATIONAL CONGRESSES

- September **2018** - Combining in situ heating and serial block face SEM approaches to investigate the 3D thermal evolution of nanoporous gold. Sogne, E; Falqui, A; Delogu, F; Pia, G; Rizzi, P; Scaglione, F. 19th International Microscopy Congress (IMC19), (Mini Oral + Digital Poster).
- **June 2017** - Volume Reconstruction and Isothermal Coarsening of Nanoporous Gold Studied by Serial Block Face and In Situ Heating Environmental Scanning Electron Microscopy. Sogne, E; Falqui, A; Delogu, F; Pia, G; Rizzi, P; Scaglione, F. 68th Annual Conference of the Nordic Microscopy Society, SCANDEM 2017.
- **December 2016** - Imaging techniques to investigate the interaction between nanostructures and cells, Bioscience Program seminar, E. Sogne, Biological and Environmental Sciences and Engineering (BESE) Division, KAUST.

- **September 2011** - The effect of surface nanometer-scale morphology on nanostructured surfaces functionalization. E. Sogne, P.E. Scopelliti, M. Indrieri, V. Sharma, L. Gailite. G. Bongiorno, P. Milani, European Society of Biomaterials (ESB) 2011.
- **September 2011** - High-Throughput study of the activity of Trypsin adsorbed on cluster-assembled nanostructured TiO_x thin films. E. Sogne, L. Gailite, P.E. Scopelliti, V. Sharma, G. Bongiorno, P. Milani, European Society of Biomaterials (ESB) 2011.

8. PUBLICATIONS

8.1 International Journals

- (1) Pinna, A.; Pia, G.; Casula, M. F.; Delogu, F.; Sogne, E.; Falqui, A.; Pilia, L. Fabrication of Nanoporous Al by Vapor-Phase Dealloying: Morphology Features, Mechanical Properties and Model Predictions. *Appl. Sci.* **2021**, Vol. 11, Page 6639 **2021**, 11 (14), 6639. <https://doi.org/10.3390/APP11146639>.
- (2) Birolini, G.; Valenza, M.; Di Paolo, E.; Vezzoli, E.; Talpo, F.; Maniezzi, C.; Caccia, C.; Leoni, V.; Taroni, F.; Bocchi, V. D.; Conforti, P.; Sogne, E.; Petricca, L.; Cariulo, C.; Verani, M.; Caricasole, A.; Falqui, A.; Biella, G.; Cattaneo, E. Striatal Infusion of Cholesterol Promotes Dose-dependent Behavioral Benefits and Exerts Disease-modifying Effects in Huntington's Disease Mice. *EMBO Mol. Med.* **2020**, 12 (10). <https://doi.org/10.15252/EMMM.202012519>
- (3) Foroutan, F.; Kyffin, B. A.; Abrahams, I.; Knowles, J. C.; Sogne, E.; Falqui, A.; Carta, D. Mesoporous Strontium-Doped Phosphate-Based Sol-Gel Glasses for Biomedical Applications. *Front. Chem.* **2020**, 0, 249. <https://doi.org/10.3389/FCHEM.2020.00249>
- (4) Vezzoli, E.; Calì, C.; De Roo, M.; Ponzoni, L.; Sogne, E.; Gagnon, N.; Francolini, M.; Braidà, D.; Sala, M.; Muller, D.; Falqui, A.; Magistretti, P. J. Ultrastructural Evidence for a Role of Astrocytes and Glycogen-Derived Lactate in Learning-Dependent Synaptic Stabilization. *Cereb. Cortex* **2020**, 30 (4), 2114–2127. <https://doi.org/10.1093/CERCOR/BHZ226>
- (5) Ronda, L.; Tonelli, A.; Sogne, E.; Autiero, I.; Spyraakis, F.; Pellegrino, S.; Abbiati, G.; Maffioli, E.; Schulte, C.; Piano, R.; Cozzini, P.; Mozzarelli, A.; Bettati, S.; Clerici, F.; Milani, P.; Lenardi, C.; Tedeschi, G.; Gelmi, M. L. Rational Design of a User-Friendly Aptamer/Peptide-Based Device for the Detection of Staphylococcus Aureus. *Sensors* **2020**, Vol. 20, Page 4977 **2020**, 20 (17), 4977. <https://doi.org/10.3390/S20174977>
- (6) Tirinato, L.; Pagliari, F.; Di Franco, S.; Sogne, E.; Marafioti, M. G.; Jansen, J.; Falqui, A.; Todaro, M.; Candeloro, P.; Liberale, C.; Seco, J.; Stassi, G.; Di Fabrizio, E. ROS and Lipid Droplet Accumulation Induced by High Glucose Exposure in Healthy Colon and Colorectal Cancer Stem Cells. *Genes Dis.* **2020**, 7 (4), 620–635. <https://doi.org/10.1016/J.GENDIS.2019.09.010>
- (7) Vezzoli, E.; Caron, I.; Talpo, F.; Besusso, D.; Conforti, P.; Battaglia, E.; Sogne, E.; Falqui, A.; Petricca, L.; Verani, M.; Martufi, P.; Caricasole, A.; Bresciani, A.; Cecchetti, O.; Di Val Cervo, P. R.; Sancini, G.; Riess, O.; Nguyen, H.; Seipold, L.; Saftig, P.; Biella, G.; Cattaneo, E.; Zuccato, C. Inhibiting

- Pathologically Active ADAM10 Rescues Synaptic and Cognitive Decline in Huntington's Disease. *J. Clin. Invest.* **2019**, *129* (6), 2390–2403. <https://doi.org/10.1172/JCI120616>
- (8) Marcias, G.; Casula, M.; Uras, M.; Falqui, A.; Miozzi, E.; Sogne, E.; Pili, S.; Pilia, I.; Fabbri, D.; Meloni, F.; Pau, M.; Sanna, A.; Fostinelli, J.; Massacci, G.; D'Aloja, E.; Filon, F.; Campagna, M.; Lecca, L. Occupational Fine/Ultrafine Particles and Noise Exposure in Aircraft Personnel Operating in Airport Taxiway. *Environments* **2019**, *6* (3), 35. <https://doi.org/10.3390/environments6030035>
 - (9) Lentijo-Mozo, S.; Deiana, D.; Sogne, E.; Casu, A.; Falqui, A. Unexpected Insights about Cation-Exchange on Metal Oxide Nanoparticles and Its Effect on Their Magnetic Behavior. *Chem. Mater.* **2018**, *30* (21), 8099–8112. <https://doi.org/10.1021/acs.chemmater.8b04331>
 - (10) Pia, G.; Sogne, E.; Falqui, A.; Delogu, F. Ag Surface Segregation in Nanoporous Au Catalysts during CO Oxidation. *Sci. Rep.* **2018**, *8* (1), 15208. <https://doi.org/10.1038/s41598-018-33631-4>
 - (11) Galli, A.; Maffioli, E.; Sogne, E.; Moretti, S.; Di Cairano, E. S.; Negri, A.; Nonnis, S.; Norata, G. D.; Bonacina, F.; Borghi, F.; Podestà, A.; Bertuzzi, F.; Milani, P.; Lenardi, C.; Tedeschi, G.; Perego, C. Cluster-Assembled Zirconia Substrates Promote Long-Term Differentiation and Functioning of Human Islets of Langerhans. *Sci. Rep.* **2018**, *8* (1). <https://doi.org/10.1038/s41598-018-28019-3>
 - (12) Mula, G.; Printemps, T.; Licitra, C.; Sogne, E.; D'Acapito, F.; Gambacorti, N.; Sestu, N.; Saba, M.; Pinna, E.; Chiriu, D.; Ricci, P. C.; Casu, A.; Quochi, F.; Mura, A.; Bongiovanni, G.; Falqui, A. Doping Porous Silicon with Erbium: Pores Filling as a Method to Limit the Er-Clustering Effects and Increasing Its Light Emission. *Sci. Rep.* **2017**, *7* (1), 5957. <https://doi.org/10.1038/s41598-017-06567-4>
 - (13) Schulte, C.; Rodighiero, S.; Cappelluti, M. A.; Puricelli, L.; Maffioli, E.; Borghi, F.; Negri, A.; Sogne, E.; Galluzzi, M.; Piazzoni, C.; Tamplenizza, M.; Podestà, A.; Tedeschi, G.; Lenardi, C.; Milani, P. Conversion of Nanoscale Topographical Information of Cluster-Assembled Zirconia Surfaces into Mechanotransductive Events Promotes Neuronal Differentiation. *J. Nanobiotechnology* **2016**, *14* (1), 18. <https://doi.org/10.1186/s12951-016-0171-3>
 - (14) Borghi, F.; Sogne, E.; Lenardi, C.; Podestà, A.; Merlini, M.; Ducati, C.; Milani, P. Cluster-Assembled Cubic Zirconia Films with Tunable and Stable Nanoscale Morphology against Thermal Annealing. *J. Appl. Phys.* **2016**, *120* (5), 55302. <https://doi.org/10.1063/1.4960441>
 - (15) Casula, M. F.; Conca, E.; Bakaimi, I.; Sathya, A.; Materia, M. E.; Casu, A.; Falqui, A.; Sogne, E.; Pellegrino, T.; Kanaras, A. G. Manganese Doped-Iron Oxide Nanoparticle Clusters and Their Potential as Agents for Magnetic Resonance Imaging and Hyperthermia. *Phys. Chem. Chem. Phys.* **2016**, *18* (25), 16848–16855. <https://doi.org/10.1039/C6CP02094A>
 - (16) Casu, A.; Genovese, A.; Di Benedetto, C.; Lentijo Mozo, S.; Sogne, E.; Zuddas, E.; Falqui, A. A Facile Method to Compare EFTEM Maps Obtained from Materials Changing Composition over Time. *Microsc. Res. Tech.* **2015**, *78* (12), 1090–1097. <https://doi.org/10.1002/jemt.22589>
 - (17) Rodighiero, S.; Torre, B.; Sogne, E.; Ruffilli, R.; Cagnoli, C.; Francolini, M.; Di Fabrizio, E.; Falqui, A. Correlative Scanning Electron and Confocal Microscopy Imaging of Labeled Cells Coated by

- Indium-Tin-Oxide. *Microsc. Res. Tech.* **2015**, 78 (6), 433–443. <https://doi.org/10.1002/jemt.22492>
- (18) Falqui, A.; Rodighiero, S.; Sogne, E.; Torre, B.; Ruffilli, R.; Francolini, M.; Cagnoli, C.; di Fabrizio, E. Indium-Tin-Oxide (ITO) as Stable and Effective Coating Material for Correlative Confocal and Immuno-Scanning Electron Microscopy Studies. *Microsc. Microanal.* **2015**, 21 (S3), 1501–1502. <https://doi.org/10.1017/S1431927615008284>
 - (19) *Benedetti, L.; *Sogne, E.; Rodighiero, S.; Marchesi, D.; Milani, P.; Francolini, M. Customized Patterned Substrates for Highly Versatile Correlative Light-Scanning Electron Microscopy. *Sci. Reports 2014 41* **2014**, 4 (1), 1–5. <https://doi.org/10.1038/srep07033>
 - (20) Tamplenizza, M.; Lenardi, C.; Maffioli, E.; Nonnis, S.; Negri, A.; Forti, S.; Sogne, E.; De Astis, S.; Matteoli, M.; Schulte, C.; Milani, P.; Tedeschi, G. Nitric Oxide Synthase Mediates PC12 Differentiation Induced by the Surface Topography of Nanostructured TiO₂. *J. Nanobiotechnology* **2013**, 11 (1), 35. <https://doi.org/10.1186/1477-3155-11-35>
 - (21) De Astis, S.; Corradini, I.; Morini, R.; Rodighiero, S.; Tomasoni, R.; Sogne, E.; Lenardi, C.; Verderio, C.; Milani, P.; Matteoli, M. Nanostructured TiO₂ Surfaces Promote Polarized Activation of Microglia, but Not Astrocytes, toward a Proinflammatory Profile. *Nanoscale* **2013**, 5 (22), 10963. <https://doi.org/10.1039/c3nr03534d>
 - (22) Donolato, M.; Torti, A.; Kotesha, N.; Deryabina, M.; Sogne, E.; Vavassori, P.; Hansen, M. F.; Bertacco, R. Magnetic Domain Wall Conduits for Single Cell Applications. *Lab Chip* **2011**, 11 (17), 2976–2983. <https://doi.org/10.1039/c1lc20300b>
 - (23) Donolato, M.; Sogne, E.; Dalslet, B. T.; Cantoni, M.; Petti, D.; Cao, J.; Cardoso, F.; Cardoso, S.; Freitas, P. P.; Hansen, M. F.; Bertacco, R. On-Chip Measurement of the Brownian Relaxation Frequency of Magnetic Beads Using Magnetic Tunneling Junctions. *Appl. Phys. Lett.* **2011**, 98 (7), 073702. <https://doi.org/10.1063/1.3554374>
 - (24) Casu, A.; Sogne, E.; Genovese, A.; Di Benedetto, C.; Lentijo Mozo, S.; Zuddas, E.; Pagliari, F.; Falqui, A. The New Youth of the In Situ Transmission Electron Microscopy. In *Microscopy and Analysis*; InTech, **2016**. <https://doi.org/10.5772/63269>.

8.1 Conference proceedings and abstracts

- C1. Falqui, A; Sogne, E; Pia, G; Delogu, F; Scaglione, F; Rizzi, P., Investigation and modelling of nanoporous gold thermal coarsening by the combined use of in situ ESEM and FIB-SEM, E-MRS Spring meeting, Strasbourg, May 2020.
- C2. Falqui, A; Casu, A; Sogne, E; Mirigliano, M; Milani, P., In Situ TEM-Based Dewetting Studies of Cluster-Assembled Au Films Produced by Supersonic Cluster Beam Deposition, 2019 MRS Fall Meeting, Boston, December 2019.
- C3. Sogne, E; Pia, G; Falqui, A; Delogu, F., Combining in situ heating environmental SEM and FIB-SEM approaches to investigate the 3D thermal evolution of nanoporous gold. 20th International

Union of Materials Research Societies International Conference in Asia (IUMRS-ICA), Perth, Australia, September 2019.

- C4. Mula, G; Printemps, T; Licitra, C; Sogne, E; D'Acapito, F; Gambacorti, N; Sestu, N; Saba, M; Pinna, E; Chiriu, D; Ricci, P.C.; Casu, A; Quochi, F; Mura, A.A; Bongiovanni, G; Falqui, A., Light emission from porous silicon: pores filling as a solution to avoid the Er-clustering drawback. 2018 E-MRS spring meeting, Strasbourg, June 2018.
- C5. Falqui, A; Sogne, E; Delogu, F; Pia, G; Rizzi, P; Scaglione, F., Isothermal coarsening and 3D volume reconstruction of nanoporous gold studied by in situ heating environmental and serial block face SEM. International Symposium of GRK 1896, October 2017.
- C6. Falqui, A; Sogne, E; Delogu, F; Pia, G; Rizzi, P; Scaglione, F. Three-dimensional volume reconstruction and isothermal coarsening of nanoporous gold studied by Serial Block Face and in-situ heating Environmental SEM. Microscience Microscopy Congress, July 2017.
- C7. Ronda, L; Tonelli, A; Maffioli, EM; Sogne, E; Piano, R; Pellegrino, S; Cozzini, P; Mozzarelli, A; Tedeschi, G; Clerici, F; Drago, L; Lenardi, C; Milani, P; Gelmi, ML., Novel approach for a user-friendly aptamer-based detection kit for Staphylococcus aureus in biological fluids. Italian National Conference on Condensed Matter Physics, October 2015.
- C8. Maffioli, E; Schulte, C; Nonnis, S; Negri, A; Puricelli, L; Borghi, F; Sogne, E; Piazzoni, C; Santagata, F; Podestà, A; Lenardi, C; Milani, P; Tedeschi, G., A proteomic approach confirms nanostructure-induced neuritogenesis and alterations of the mechanotransductive processes in PC12 cells, a model system for neuronal differentiation and neurosecretion. National Meeting of the Italian Society of Biochemistry and Molecular Biology, September 2015.
- C9. Maffioli, E; Schulte, C; Nonnis, S; Ripamonti, M; Puricelli, L; Piazzoni, C; Negri, A; Sogne, E; Santagata, F; Podestà, A; Lenardi, C; Malgaroli, A; Milani, P; Tedeschi, G. Nanostructured zirconia surface induces differentiation and maturation events in neonatal neuronal cells from rat hippocampus. Proteomics: Back to the Future, June 2015.
- C10. Maffioli, E; Schulte, C; Nonnis, S; Negri, A; Puricelli, L; Borghi, F; Sogne, E; Piazzoni, C; Santagata, F; Podestà, A; Lenardi, C; Milani, P; Tedeschi, G., Proteomic profile confirms nanostructure-induced neuritogenesis and reflects alterations of the mechanotransductive processes in PC12 cells. Proteomics: Back to the Future, June 2015.
- C11. Maffioli, E; Schulte, C; Ripamonti, M; Puricelli, L; Piazzoni, C; Sogne, E; Santagata, F; Podestà, A; Lenardi, C; Malgaroli, A; Milani, P; Tedeschi, G., Nanorough zirconia surfaces promote differentiation and maturation events in neonatal hippocampal neuronal cells. Molecular Mechanisms of Neurodegeneration, May 2015.
- C12. Sogne, E; Merlini, M; Borghi, F; Podestà, A; Milani, P; Lenardi, C., Combined Effect of Nanocrystalline Size and Oxygen Vacancies on Phase Transformation in Cluster Assembled Nanostructured ZrO₂ Films, 2014 MRS Spring meeting, San Francisco, April 2014.

- C13. Donolato, M; Torti, A; Sogne, E; Kostesha, N; Deryabina, M; Vavassori, P; Hansen, M.F.; Bertacco, R. On-chip single cell manipulation via magnetic domain wall conduits. μ TAS, October 2011.
- C14. Torti, A; Sogne, E; Donolato, M; Petti, D, Bertacco, R. On chip magnetic conduit networks for manipulating biological entities. NANO 2010, Rome, September 2010.
- C15. Petti, D; Donolato, M; Rinaldi, C; Sogne, E; Bertacco, R., Multicolor spintronic biosensors for molecular recognition. Trends in Spintronics and Nanomagnetism, Lecce, May 2010.
- C16. Bu, M; Søggaard, E; Sogne, E; Wolff, A., Characterization of a Braille display actuated microfluidic pump and valve for a portable pathogen detection system. Proceeding of the 13th Annual European Conference On Micro & Nanoscale Technologies for the Biosciences, November 2009.

Date

17.10.2021

Place

Waterloo, Ontario, CANADA