

Piazza del Quadraretto, 28
00174 Roma - Italy
Tel. +393928195983
E-mail: e.lemma@unicampus.it

ORCID: 0000-0002-5436-9175

PhD in Materials and Structural Engineering and Nanotechnology
MSc in Materials Engineering
BSc in Industrial Engineering

Postgraduate activity

[20.12.22-Present] – Università Campus Bio-Medico di Roma, U.C.B.M. (Rome, Italy)

Assistant Professor (*Ricercatore a tempo determinato ex art. 24, c. 3, lett. (a) della L. 240/2010*) at Faculty of Engineering – SSD: ING-IND/22

- Project: “DNA Hybridization-based magnetic-Nanoparticle-mediated Actuation of 3D Microstructures”

[01.03.22-19.12.22] – Università Campus Bio-Medico di Roma, U.C.B.M. (Rome, Italy)

Researcher (*Assegnista di Ricerca*) at Dept. of Engineering, Division of Tissue Engineering and Chemistry for Engineering – SSD: ING-IND/34

- Project: “Design and fabrication of microfabricated and microfluidic devices for modelling the ovarian cancer microenvironment“, Unit Project Manager under the supervision of Prof. Alberto RAINER and Prof. Marcella TROMBETTA

[01.10.19-31.03.22] - Karlsruher Institut für Technologie, K.I.T. (Karlsruhe, Germany)

Alexander-von-Humboldt-Foundation Post-doctoral Fellow at Zoological Institute.

- Project: “3DNActive: 3D stem cell culture via DNA-based selective functionalization”, Scientific Project Manager under the supervision of: Prof. Dr. Martin BASTMEYER and Prof. Dr. Christof NIEMEYER.
- Cluster of Excellence of the German Federal and State Governments: “3DMM2O: 3D matter made to order”, External Collaborator.

[01.04.18-30.09.19] - Karlsruher Institut für Technologie, K.I.T. (Karlsruhe, Germany)

Post-doctoral Researcher (*Wissenschaftlicher Mitarbeiter*) at Zoological Institute, Supervisor: Prof. Dr. Martin BASTMEYER.

- Activities: 3D structures development for cell biology, development of functional materials for two-photon lithography.

[01.12.14-30.11.17] - Istituto Italiano di Tecnologia, IIT and Università del Salento (Lecce, Italy)

PhD Fellow at Center for Biomolecular Nanotechnologies, Supervisors: Prof. Ing. Massimo DE VITTORIO, Dr. Ferruccio PISANELLO.

- PhD Thesis : « Three-dimensional Microfabrication via Direct Laser Writing Technologies for Advances in Mechanobiology of Cancer Cells » defended on 21.05.2018.
- Activities/Skills: 3D scaffolding and Direct Laser Writing for cell mechanics, CleanRoom facilities, cell culturing, seeding and staining, microscopic techniques (SEM, Confocal, AFM), implementation of a two-photon lithography custom system.

Research- and Education-related Information

- H-index: 11 (Scholar), 11 (Scopus).
- Citations: 537 (Scholar), 393 (Scopus).
- **Editorial activity**
 - Guest Editor for *Frontiers in Bioengineering and Biotechnology* (Frontiers), Research Topic: Advanced three-dimensional platforms for tissue regeneration: when microenvironment matters, with Prof. A.MOTTA and Dr. P.MOZETIC
- **Peer-review activity**
 - Journals: *Advanced materials* (Wiley); *Micro and nano Engineering* (Elsevier); *Materials&Design* (Elsevier); *JoVE*; *sensors* (MDPI), *biomaterials* (MDPI), *journal of clinical medicine* (MDPI), *biomolecules* (MDPI), *materials* (MDPI).
 - National Grants: PRIN Grants (Italian Ministry for Education, University and Research), since 2018.
 - Other: Topic Board Member of *bioengineering* (MDPI).
- **Organization of Conferences and Symposia**

- Co-Organizer of the 1st National Congress of the Italian Society for Organs on Chip (SIOoC), Rome (I), 4—5 May 2023.
- Co-Organizer of the Biomaterials Symposium at the International Materials Science and Engineering Conference of the German Association for Materials (DGM) MSE 2022, Darmstadt (D), 27—29 Sep. 2022.

Funding and Scholarships

- Young Researchers Fellowship of the Italian Ministry of Research, project funding 150k€ – Call 2022.
- Postdoctoral Research Fellowship of the Alexander-von-Humboldt Foundation (2019-2022), project supporting funding 25k€.
- Seal of Excellence for the Marie Skłodowska Curie Individual Fellowship - Call 2020.
- Seal of Excellence for the Marie Skłodowska Curie Individual Fellowship - Call 2018.
- DAAD Short-term Research Grant Fellowship, year 2018, total funding 7k€- withdrawn for full position as post-doctoral researcher at Karlsruher Institut für Technologie, K.I.T. (Karlsruhe, Germany).
- PhD Fellowship from Università del Salento, years 2014-2017, total funding 36k€.
- Add-on contribution for talented Researchers working in Regione Lazio, year 2022, 2k€ (“Contributi premiali per i ricercatori e assegnisti di ricerca per rafforzarne la condizione professionale e potenziare il sistema della ricerca del Lazio”)

Distinctions and Memberships

- Best oral presentation award at 9th Workshop of AICIng (Associazione Italiana di Chimica per l’Ingegneria), Ancona (I), 16—17. June 2022.
- Abilitazione all’esercizio della Professione di Ingegnere (Licensed as Profession Engineer, as required by Italian Law), 2014.
- Intermediate Selection for the "Alfiere del Lavoro" Distinction, by the President of the Italian Republic, 2008.
- Chair of the Young Scientists Chapter of *the Italian Society for Organs on Chip (SIOoC)*, since 2023.
- Member of *Associazione Italiana Alexander von Humboldt*, since 2022.
- Member of *TERMIS (Tissue Engineering and Regenerative Medicine International Society)*, since 2022.
- Member of *Associazione Internazionale Ricercatori Italiani*, since 2021.
- Member of *Innovitalia*, since 2021.
- Member of *Deutsche Gesellschaft der Humboldtianer e.V.*, since 2019.

Teaching activity and Mentoring

Academic year 2022-2023

- Teaching assistant: “Chemistry” [SSD: CHIM/07] (U.C.B.M., Faculty of Engineering), 7 ECTS.
- Teaching assistant: “Science and Technology of Materials” [SSD: ING-IND/22] (U.C.B.M., Faculty of Engineering), 6 ECTS.

Academic year 2021-2022

- Practical Course: “Molecular Cell Biology” [T-CHEM-BIO-107046] (K.I.T., Faculty of Chemical and Biological Sciences), 8 ECTS.

Academic year 2020-2021

- Practical Course: “Microscopy Techniques for Cell- and Neurobiology” [T-CHEM-BIO-108676] (K.I.T., Faculty of Chemical and Biological Sciences), 8 ECTS.
- Research Project [M-PHYS102194] (K.I.T., Karlsruhe School of Optics and Photonics), 4 ECTS.

Academic year 2019-2020

- Practical Course: “Biological fluorescence microscopy” [M-PHYS102189] (K.I.T., Karlsruhe School of Optics and Photonics), 2 ECTS.
- Research Project [M-PHYS102194] (K.I.T., Karlsruhe School of Optics and Photonics), 4 ECTS.

Academic year 2018-2019

- Practical Course: “Microscopy Techniques for Cell- and Neurobiology” [T-CHEM-BIO-108676] (K.I.T., Faculty of Chemical and Biological Sciences), 8 ECTS.
- Practical Course: “Molecular Cell Biology” [T-CHEM-BIO-107046] (K.I.T., Faculty of Chemical and Biological Sciences), 8 ECTS.
- Practical Course: “Biological fluorescence microscopy” [M-PHYS102189] (K.I.T., Karlsruhe School of Optics and Photonics), 2 ECTS.
- Research Project [M-PHYS102194] (K.I.T., Karlsruhe School of Optics and Photonics), 4 ECTS.

Other:

- Scientific Module “Hands-on 3D laser micro-printing for beginners” (K.I.T., 3DMM2O Excellence Initiative), winter and summer semesters 2019-2022 (total 113.75hrs).
- Mentoring of one PhD student, 2019-2022 (K.I.T., within the 3DMM2O Excellence Initiative).
- Tutoring of one MSc Student, 2021 (K.I.T., Karlsruhe School of Optics and Photonics).

Undergraduate education

[24.02.12-30.10.14] - Scuola Superiore ISUFI @ Università del Salento (Lecce, Italy)

« **Licenza Magistrale** » **Graduation**, Thesis supervisor : Prof.ssa Rosaria RINALDI — Grade 70/70

[07.2014] - Universiteit Utrecht (Utrecht, Netherlands)

Summer Scholar in Regenerative Medicine

[26.01.12-16.04.14] - Università del Salento (Lecce, Italy)

MSc in Materials Engineering, Thesis supervisor : Prof. Ing. Alessandro SANNINO — Grade 110/110 cum laude

[13.03.13-05.08.13] - Karlsruher Institut für Technologie, KIT (Karlsruhe, Germany)

ERASMUS Exchange Programme Scholar

[01.09.08-23.02.12] - Scuola Superiore ISUFI @ Università del Salento (Lecce, Italy)

« **Licenza Triennale** » **Graduation**

[01.09.08-25.01.12] - Università del Salento (Lecce, Italy)

BSc in Industrial Engineering — Grade 110/110 cum laude

[01.09.03-01.07.08] - Liceo Scientifico “C. De Giorgi” (Lecce, Italy)

Diploma di maturità scientifica (Secondary school graduation) — Grade 100/100 cum laude

Language skills

- Italian : mother tongue
- English : proficiency (C2 level according to CEFR, Certificate of Proficiency in English, Univ. of Cambridge, 2007, certificate No.0018549530)
- German : advanced (C1 level according to CEFR, Goethe Zertifikat C1, Goethe Institut)
- French : autonomous (B1 level according to CEFR)

List of publications

1. Enrico Domenico Lemma*‡, Zhongxiang Jiang, Franziska Klein, Tanja Landmann, Kai Weißenbruch, Sarah Bertels, Marc Hippler, Bernhard Wehrle-Haller, Martin Bastmeyer, **Adaptation of cell spreading to varying fibronectin densities and topographies is facilitated by β 1 integrins**, *Frontiers in Bioengineering and Biotechnology*, 2022, 10:964259.
2. Kai Weißenbruch, Enrico Domenico Lemma‡, Marc Hippler, Martin Bastmeyer, **Micro-scaffolds as synthetic cell niches: Recent advances and challenges**, *Current Opinion in Biotechnology*, 2022, 73, pp.290-299.
3. Roberta Tabone, Dominik Feser, Enrico Domenico Lemma, Ute Schepers, Claudia Bizzarri, **Intriguing heteroleptic Zn^{II} bis (dipyrrinato) emitters in the far-red region with large pseudo-Stokes shift for bioimaging**, *Frontiers in Chemistry*, 2021, 9.
4. Andrea Milzi, Enrico Domenico Lemma‡, Rosalia Dettori, Kathrin Burgmaier, Nikolaus Marx, Sebastian Reith, Mathias Burgmaier, **Coronary plaque composition influences biomechanical stress and predicts plaque rupture in a morpho-mechanic OCT analysis**, *eLife*, 2021, 10 (e64020).
5. Marc Hippler, Kai Weißenbruch, Kai Richler, Enrico Domenico Lemma, Masaka Nakahata, Benjamin Richter, Christopher Barner-Kowollik, Yoshinori Takashima, Akira Harada, Eva Blasco, Martin Wegener, Motomu Tanaka, Martin Bastmeyer, **Mechanical stimulation of single cells by reversible host-guest interactions in 3D microcaffolds**, *Science Advances*, 2020, 6 (39).
6. Sara Sergio, Addolorata Maria Luce Coluccia, Enrico Domenico Lemma, Barbara Spagnolo, Daniele Vergara, Michele Maffia, Massimo De Vittorio, Ferruccio Pisanello, **3D-microenvironments initiate TCF4 expression rescuing nuclear β -catenin activity in MCF-7 breast cancer cells**, *Acta Biomaterialia*, 2020, 103, pp.153-164.
7. Sebastian Reith, Andrea Milzi, Enrico Domenico Lemma, Rosalia Dettori, Kathrin Burgmaier, Nikolaus Marx, Mathias Burgmaier, **Intrinsic calcification angle: a novel feature of the vulnerable coronary plaque in patients with type 2 diabetes: an optical coherence tomography study**, *Cardiovascular Diabetology*, 2019, 18, 1, pp. 1-12.
8. Marc Hippler, Enrico Domenico Lemma‡, Sarah Bertels, Eva Blasco, Christopher Barner-Kowollik, Martin Wegener, Martin Bastmeyer, **3D Scaffolds to Study Basic Cell Biology**, *Advanced Materials*, 2019, 1808110.
9. Enrico Domenico Lemma*, Barbara Spagnolo, Massimo De Vittorio, Ferruccio Pisanello, **Studying Cell Mechanobiology in 3D: The Two-Photon Lithography Approach**, *Trends in biotechnology*, 2019, 37, 4, pp.358-372.
10. Elisa Scarpa, Enrico Domenico Lemma*‡, Roberto Fiammengo, Maria Pia Cipolla, Ferruccio Pisanello, Francesco Rizzi, Massimo De Vittorio, **Microfabrication of pH-responsive 3D hydrogel structures via two-photon polymerization of high-molecular-weight poly (ethylene glycol) diacrylates**, *Sensors and Actuators B: Chemical*, 2019, 279, pp.418-426.
11. Alessandro Rizzo, Enrico Domenico Lemma, Filippo Pisano, Marco Pisanello, Leonardo Sileo, Massimo De Vittorio, Ferruccio Pisanello, **Laser micromachining of tapered optical fibers for spatially selective control of neural activity**, *Microelectronic Engineering*, 2018, 192, pp.88-95.
12. Enrico Domenico Lemma*, Sara Sergio, Barbara Spagnolo, Marco Pisanello, Luciana Algieri, Maria Addolorata Coluccia, Michele Maffia, Massimo De Vittorio, Ferruccio Pisanello, **Tunable mechanical properties of stent-like microcaffolds for studying cancer cell recognition of stiffness gradients**, *Microelectronic engineering*, 2018, 190, pp.11-18.
13. Enrico Domenico Lemma*‡, Barbara Spagnolo, Francesco Rizzi, Stefania Corvaglia, Marco Pisanello, Massimo De Vittorio, Ferruccio Pisanello, **Microenvironmental Stiffness of 3D Polymeric Structures to Study Invasive Rates of Cancer Cells**, *Advanced Healthcare Materials*, 2017, 6, 22. – [Issue back cover](#)
14. Enrico Domenico Lemma, Barbara Spagnolo, Sara Sergio, Marco Pisanello, Massimo De Vittorio, Ferruccio Pisanello, **Confocal imaging characterization of two-photon lithography microstructures for cell cultures**, *2017 IEEE 17th International Conference on Nanotechnology (IEEE-NANO)*, 2017, pp.720-724.

15. Natalina Moscatelli, Barbara Spagnolo, Marco Pisanello, Enrico Domenico Lemma, Massimo De Vittorio, Vincenzo Zara, Ferruccio Pisanello, Alessandra Ferramosca, **Single-cell-based evaluation of sperm progressive motility via fluorescent assessment of mitochondria membrane potential**, *Scientific Reports*, 2017, 7.
16. Enrico Domenico Lemma*, Francesco Rizzi, Tommaso Dattoma, Barbara Spagnolo, Leonardo Sileo, Antonio Qualtieri, Massimo De Vittorio, Ferruccio Pisanello, **Mechanical properties tunability of three-dimensional polymeric structures in two-photon lithography**, *IEEE Transactions on Nanotechnology*, 2017, 16, 1, pp.23-31 – [Issue front cover](#)
17. Francesco Guido, Antonio Qualtieri, Luciana Algieri, Enrico Domenico Lemma, Massimo De Vittorio, Maria Teresa Todaro, **AlN-based flexible piezoelectric skin for energy harvesting from human motion**, *Microelectronic Engineering*, 2016, 159, pp.174-178.
18. Barbara Spagnolo, Leonardo Sileo, Enrico Domenico Lemma, Virgilio Brunetti, Elisa De Luca, Teresa Pellegrino, Godefroy Leménager, Pier Paolo Pompa, Massimo De Vittorio, Ferruccio Pisanello, **Nanofabricated 3D cage-like structures for cancer cell discrimination**, *2015 IEEE 15th International Conference on Nanotechnology (IEEE-NANO)*, 2015, pp.1414-1417.

* (co-)corresponding author

‡ co-first author

Contributions at conferences

1. **Enrico Domenico Lemma**, Marc Hippler, Sarah Bertels, Kai Weißenbruch, Stephan Keppler, Martin Bastmeyer, *Three-dimensional direct laser writing for single-cell force measurements*, Poster Contribution at Materials Science and Engineering MSE 2022, Darmstadt (D) and online, 27—29. September 2022.
2. F. Kermani, **E. D. Lemma**, K. Rapti, D. Grimm, M. Bastmeyer, M. Hecker, N. D. Ullrich, Structural Remodelling Improves Electrophysiological Properties in Human iPSC-Derived Cardiomyocytes, [Poster Contribution](#) at Europhysiology 2022, Copenhagen (DK), 16—18. September 2022.
3. **Enrico Domenico Lemma**, Roberta Tabone, Kai Richler, Ann-Kathrin Schneider, Christof Niemeyer, Claudia Bizzarri, M. Trombetta, A. Rainer and Martin Bastmeyer, Selective Cell Adhesion on 3D Scaffolds via Photo-induced DNA Functionalization, [Oral Contribution](#) at 9th Workshop of AICIng (Associazione Italiana di Chimica per l'Ingegneria), Ancona (I), 16—17. June 2022.
4. **Enrico Domenico Lemma**, Roberta Tabone, Kai Richler, Ann-Kathrin Schneider, Christof Niemeyer, Claudia Bizzarri, and Martin Bastmeyer, Selective Cell Adhesion on 3D Scaffolds via Photo-induced DNA Functionalization, accepted for [Oral Contribution](#) at MRS Spring 2022, Honolulu (USA) and online, 23—25. May 2022.
5. **Enrico Domenico Lemma**, Roberta Tabone, Kai Richler, Ann-Kathrin Schneider, Christof Niemeyer, Claudia Bizzarri, and Martin Bastmeyer, *Selective cell adhesion on 3D scaffolds via photo-induced DNA functionalization*, [Oral Contribution](#) at 47th Micro- and Nanoengineering International Conference MNE 2021, Torino (I), 20—23. September 2021.
6. **Enrico Domenico Lemma**, Roberta Tabone, Kai Richler, Ann-Kathrin Schneider, Christof Niemeyer, Claudia Bizzarri, and Martin Bastmeyer, *Selective cell adhesion on 3D scaffolds via photo-induced DNA functionalization*, [Poster Contribution](#) at Biointerfaces International Zurich 2021, online, 18. —19. August 2021.
7. **Enrico Domenico Lemma**, Roberta Tabone, Kai Richler, Ann-Kathrin Schneider, Christof Niemeyer, Claudia Bizzarri, and Martin Bastmeyer, *Selective cell adhesion on 3D scaffolds via photo-induced DNA functionalization*, [Invited Contribution](#) at the Humboldt Netzwerktagung 2021, online, 21.—22. April 2021.
8. **Enrico Domenico Lemma**, Roberta Tabone, Kai Richler, Ann-Kathrin Schneider, Christof Niemeyer, Claudia Bizzarri, and Martin Bastmeyer, *Selective cell adhesion on 3D scaffolds via photo-induced DNA functionalization*, [Oral Contribution](#) at the “Nanobiotechnology for Cell Interfaces” 733th Wilhelm-und-Else-Heraeus-Stiftung Seminar, online, 17.—18. March 2021.
9. **Enrico Domenico Lemma**, Marc Hippler, Sarah Bertels, Kai Weißenbruch, Stephan Keppler, Martin Bastmeyer, *YAP nuclear/cytoplasmic relocation in 2D, 2.5D and 3D constrained fibroblasts*, [Poster Contribution](#) at Future 3D Additive Manufacturing – the 3DMM20 Conference 2020: 3D Hybrid Organotypic Systems, Schöntal (D), 1. —4. March 2021.
10. **Enrico Domenico Lemma**, Marc Hippler, Sarah Bertels, Kai Weißenbruch, Stephan Keppler, Martin Bastmeyer, *Three-dimensional direct laser writing for single-cell force measurements*, [Poster Contribution](#) at Joint German-Japanese Workshop 2020, Heidelberg (D), 4.—5. March 2020.

11. Marc Hippler, Kai Weißenbruch, **Enrico Lemma**, Eva Blasco, Motomu Tanaka, Christopher Barner-Kowollik, Martin Bastmeyer, Martin Wegener, Stimuli-responsive 3D micro-scaffolds for single cell actuation, Oral Contribution at PHOTONIC WEST 2020, San Francisco (USA), 1—6. February 2020.
12. Antonio Balena, Alessandro Rizzo, Leonardo Sileo, Barbara Spagnolo, Filippo Pisano, Marco Pisanello, Francesco De Nuccio, Dario Lofrumento, **Enrico Domenico Lemma**, Bernardo Sabatini, Massimo De Vittorio, Ferruccio Pisanello, *A fully integrated tapered fiber optrode for simultaneous multipoint optical control and electrical readout of neural activity*, Oral Contribution at 45th Micro- and Nanoengineering International Conference MNE 2019, Rhodes (GR), 23—26. September 2019.
13. Sara Sergio, Addolorata Maria Luce Coluccia, **Enrico Domenico Lemma**, Barbara Spagnolo, Daniele Vergara, Michele Maffia, Massimo De Vittorio, Ferruccio Pisanello, *Influence of 3D microenvironment on cancer cells growth and invasion*, Oral Contribution at 45th Micro- and Nanoengineering International Conference MNE 2019, Rhodes (GR), 23—26. September 2019.
14. **Enrico Domenico Lemma**, Marc Hippler, Sarah Bertels, Kai Weißenbruch, Stephan Keppler, Martin Bastmeyer, *Three-Dimensional Direct Laser Writing for Cell Biology*, Oral Contribution at 1st Young Materials and Surface Engineers Workshop, Rome (I), 2—3. May 2019.
15. Ferruccio Pisanello, Filippo Pisano, Marco Pisanello, Alessandro Rizzo, Antonio Balena, Leonardo Sileo, Rui Peixoto, **Enrico Lemma**, Emanuela Maglie, Antonio Qualtieri, Elisa Bellistri, Bernardo Sabatini, Massimo De Vittorio, *Patterning the non-planar surface of tapered fibers: towards multifunctional neural interfaces*, Oral contribution at 44th Micro- and Nanoengineering International Conference MNE 2018, Copenhagen (DK), 24—27. September 2018.
16. Elisa Scarpa, **Enrico Domenico Lemma**, Francesco Rizzi, Roberto Fiammengo, Maria Pia Cipolla, Ferruccio Pisanello, Massimo De Vittorio, *Two-photon polymerization for fabrication of pH responsive high molecular weight PEG-DA based hydrogel microstructures*, Poster Contribution at 28th World Congress on Biosensors, Miami (USA), 12—15. June 2018.
17. Alessandro Rizzo, **Enrico Domenico Lemma**, Filippo Pisano, Marco Pisanello, Leonardo Sileo, Massimo De Vittorio, Ferruccio Pisanello, *Laser Micromachining of Metal-Coated Tapered Fibers for Multipoint Control of Neural Activity Based on Mode-Division Demultiplexing*, Poster contribution at 20mo Convegno Italiano delle Tecnologie Fotoniche FOTONICA 2018, Lecce (I), 23—25. May 2018.
18. **Enrico Domenico Lemma**, Lara Natta, Antonio Qualtieri, Giovanna Calò, Vincenzo Petruzzelli, Tiziana Stomeo, Massimo De Vittorio, *Two-photon lithography in a single exposure step for fabricating 3D plasmonic nanoantennas*, Poster contribution at 20mo Convegno Italiano delle Tecnologie Fotoniche FOTONICA 2018, Lecce (I), 23—25. May 2018.
19. Barbara Spagnolo, **Enrico Domenico Lemma**, Sara Sergio, Ferruccio Pisanello, Massimo De Vittorio, *Optical control of cell mechanical properties*, Poster Contribution at 4th International Workshop on Technologies for Optogenetics and Neurophotonics OPTOGEN2017, Lecce (I), 12—13. December 2017.
20. Alessandro Rizzo, **Enrico Domenico Lemma**, Filippo Pisano, Marco Pisanello, Leonardo Sileo, Massimo De Vittorio, Ferruccio Pisanello, *Laser micromachining for fast and cost-effective realization of microstructured tapered optical fibers for optogenetics applications*, Poster Contribution at 4th International Workshop on Technologies for Optogenetics and Neurophotonics OPTOGEN2017, Lecce (I), 12—13. December 2017.
21. Natalina Moscatelli, Barbara Spagnolo, Marco Pisanello, **Enrico Domenico Lemma**, Massimo De Vittorio, Vincenzo Zara, Ferruccio Pisanello, Alessandra Ferramosca, *Single-cell-based evaluation of sperm progressive motility via fluorescent assessment of mitochondria membrane potential*, Poster Contribution at 4th International Workshop on Technologies for Optogenetics and Neurophotonics OPTOGEN2017, Lecce (I), 12—13. December 2017.
22. Filippo Pisano, Gil Mandelbaum, Marco Pisanello, Ian A. Oldenburg, Leonardo Sileo, Jeffrey E. Markowitz, Ralph E. Peterson, Andrea Della Patria, Rui Peixoto, Trevor M. Haynes, Emanuela Maglie, Mohamed S. Emara, Elisa Bellistri, Barbara Spagnolo, **Enrico Lemma**, Alessandro Rizzo, Sandeep R. Datta, Bernardo L. Sabatini, Massimo De Vittorio, Ferruccio Pisanello, *Tapered optical fibers for optogenetics*, Poster Contribution at 47th Society for Neuroscience International Conference SfN 2017, Washington DC (USA), 11—15. November 2017.
23. **Enrico Domenico Lemma**, Barbara Spagnolo, Francesco Rizzi, Sara Sergio, Marco Pisanello, Massimo De Vittorio, Ferruccio Pisanello, *Two-photon Lithography Fabrication of 3D Stiffness-gradient Microscaffolds for Cancer Cell Invasiveness Studies*, Oral Contribution at 43rd Micro- and Nanoengineering International Conference MNE 2017, Braga (PT), 18—22. September 2017.
24. **Enrico Domenico Lemma**, Barbara Spagnolo, Sara Sergio, Marco Pisanello, Massimo De Vittorio and Ferruccio Pisanello, *Confocal imaging characterization of two-photon lithography microstructures for cell cultures*, Oral Contribution at 17th International Conference on Nanotechnology IEEE NANO 2017, Pittsburgh (USA), 25—28. July 2017.
25. **Enrico Domenico Lemma**, Barbara Spagnolo, Virgilio Brunetti, Leonardo Sileo, Francesco Rizzi, Massimo De Vittorio, Ferruccio Pisanello, *Cancer cell discrimination through nanofabricated 3D scaffolds with controlled stiffness*, Poster Contribution at 5th Bio-Sensing Technology International Conference BITE 2017, Riva del Garda (I), 7—10. May 2017.

26. **Enrico Domenico Lemma**, Francesco Rizzi, Leonardo Sileo, Marco Pisanello, Barbara Spagnolo, Tommaso Dattoma, Antonio Qualtieri, Massimo De Vittorio, Ferruccio Pisanello, *Static and dynamic characterization of two-photon lithography photoresist*, Oral contribution at 4th Nanoscience and Nanotechnology NanoPortugal International Conference, Braga (PT), 16—19. February 2016.
27. **Enrico Domenico Lemma**, Francesco Rizzi, Leonardo Sileo, Marco Pisanello, Barbara Spagnolo, Tommaso Dattoma, Antonio Qualtieri, Massimo De Vittorio, Ferruccio Pisanello, *Static and dynamic characterization of two-photon lithography photoresist*, Poster Contribution at 41st Micro- and Nanoengineering International Conference MNE 2015, Den Haag (NL), 21—24. September 2015.
28. Barbara Spagnolo, **Enrico Domenico Lemma**, Virgilio Brunetti, Elisa De Luca, Teresa Pellegrino, Godefroy Leménager, Leonardo Sileo, Pier Paolo Pompa, Massimo De Vittorio, Ferruccio Pisanello, *Nanofabricated 3D cage-like structures for cancer cell discrimination*, Oral contribution at 15th International Conference on Nanotechnology IEEE NANO 2015, Rome (I), 27—30. July 2015.
29. Barbara Spagnolo, **Enrico Domenico Lemma**, Leonardo Sileo, Virgilio Brunetti, Elisa De Luca, Massimo De Vittorio, Ferruccio Pisanello, *3D two-photon microfabricated cage-like structures for cancer cell discrimination*, Oral Contribution at 17mo Convegno Italiano delle Tecnologie Fotoniche FOTONICA 2015, Torino (I), 6—8. May 2015.