

# Curriculum vitae

## PERSONAL INFORMATION

### Sabato Fusco

Associate Professor at University of Molise, Campobasso - Italy

**Citizenship:** Italian  
**Address:** Department of Medicine and Health Science, Via F. De Santis,  
Campobasso - Italy  
**e-mail:** sabato.fusco@unimol.it; sabfusco@unina.it

## LANGUAGES

Italian	Mother tongue
English	Advanced
Spanish	Basic

## ACADEMIC RECORDS

2020 – present: **Associate Professor** at University of Molise, Campobasso

2019 – 2020: **E.P. Technologist** at Centro di Ricerca sui Biomateriali (CRIB) – University of Naples “Federico II”

2017 – 2019: **Research assistant** at Centro di Ricerca sui Biomateriali (CRIB) – University of Naples “Federico II”

2015 – 2016: **PostDoc Senior** Istituto Italiano di Tecnologia (IIT), Center for Advanced Biomaterials for Healthcare (CABHC@CRIB) Napoli – Italy

2010 – 2014: **PostDoc** at Istituto Italiano di Tecnologia (IIT), Center for Advanced Biomaterials for Healthcare (CABHC@CRIB) Napoli – Italy

2005 – 2009: **Research Fellow** at Centro di Ricerca sui Biomateriali (CRIB) – University of Naples “Federico II”

## **EDUCATION**

2005: Doctoral Degree in Biomaterials – Department of Chemical, Materials and Production Engineering at University of Naples “Federico II”, Italy.

2002: Master’s degree with honours in Materials Engineering at University of Naples “Federico II”, Italy

## **AWARDS**

Award for the best scientific poster received at Advances in Polymer based Materials and Related Technologies, Capri (Naples), 29 may-1 june 2011

## **TEACHING AND TUTORING ACTIVITIES**

- Master’s degree course:
  - 2021-present: Biomaterials and Tissue Engineering, Master’s Degree in Biomedical Engineering, University of Molise
  
- Bachelor’s degree course:
  - 2019-present: Bioelectricity for diagnostic and therapeutic devices, Bachelor’s Degree in Medical Engineering, University of Molise
  
- Coordinator of Master’s Degree in Biomedical Engineering, University of Molise
- Board member of National PhD Course in Artificial Intelligence for Health and Life Science
- Tutor of PhD students at the University of Molise and University of Naples “Federico II”
- Tutor of several master’s degree students at the University of Molise and University of Naples “Federico II”

## **MAIN RESEARCH ACTIVITIES:**

- Cell-materials mechanical crosstalk
  
- Mechanobiology of cancer cell and tissues
  
- Design and development of new experimental techniques for cells and tissues mechanobiology
  
- Targeting and Internalization of engineered nanocarriers in cell

### PAST RESEARCH ACTIVITIES:

- Design and set up of Optical Tweezers system for microrheological characterization of complex macromolecular fluids.
- Micellization and sol-gel transition of self-assembly PEO-PPO polymeric solutions
- Rheological characterization of PVP photocrosslinked hydrogels.
- Dynamic-mechanical and in flux characterization of Hyaluronic Acid hydrogels

### PUBLICATIONS

1. V. Panzetta, I. Musella, **S. Fusco\*** and P. A. Netti, ECM mechanoregulation in malignant pleural mesothelioma, **Frontiers in Bioengineering and Biotechnology**, DOI: 10.3389/fbioe.2022.797900, **2022**
2. R. Carotenuto, M. Tussellino, R. Ronca, G. Benvenuto, C. Fogliano, **S. Fusco**, P. A. Netti, Toxic effects of SiO<sub>2</sub>NPs in early embryogenesis of *Xenopus laevis*, **Chemosphere**, 289 - 133233, **2021**
3. Di Natale, C., Lagreca, E., Panzetta, V., Gallo, M., Passannanti, F., Vitale, M., **Fusco, S.**, Vecchione, R., Nigro, R & Netti, Morphological and Rheological Guided Design for the Microencapsulation Process of *Lactobacillus paracasei* CBA L74 in Calcium Alginate Microspheres. **Frontiers in bioengineering and biotechnology**, 9, 660691, **2021**.
4. Panzetta, V., La Verde, G., Pugliese, M., Arrichiello, C., Muto, P., La Commara, M., ... & **Fusco, S.**, Investigation of biophysical migration parameters for healthy and cancer cells after radiotherapy treatment. **Frontiers in Physics**, 8, 414, **2020**
5. V Panzetta, GL Verde, M Pugliese, V Artiola, C Arrichiello, P Muto, M La Commara, PA Netti, **S Fusco\***, *Adhesion and Migration Response to Radiation Therapy of Mammary Epithelial and Adenocarcinoma Cells Interacting with Different Stiffness Substrates*, **Cancers** 12(5), 1170, ISSN: 2072-6694, **2020**
6. T Panciera, A Citron, D Di Biagio, G Battilana, A Gandin, S Giulitti, M Forcato, S Bicciato, V Panzetta, **S Fusco**, L Azzolin, A Totaro, M Fassan, V Vindigni, F Bassetto, G Brusatin, M Cordenonsi and S Piccolo, *Reprogramming normal cells into tumour precursors requires ECM stiffness and oncogene-mediated changes of cell mechanical properties*, **Nature Materials** 19 (4), 475, ISSN: 1476-1122, **2020**

7. V Panzetta, **S Fusco\***, and PA Netti, *Cell mechanosensing is regulated by substrate strain energy rather than stiffness*, **Proceedings of the National Academy of Sciences** 116.44: 22004-22013, ISSN: 0027-8424, **2019**
8. L Mayol, T Silvestri, **S Fusco**, A Borzacchiello, G De Rosa, M Biondi, *Drug micro-carriers with a hyaluronic acid corona toward a diffusion-limited aggregation within the vitreous body*, **Carbohydrate Polymers** Volume: 220, Pages: 185-190, ISSN: 0144-8617, **2019**
9. C Serri, V Quagliariello, RV Iaffaioli, **S Fusco**, G Botti, L Mayol, M Biondi, *Combination therapy for the treatment of pancreatic cancer through hyaluronic acid-decorated nanoparticles loaded with quercetin and gemcitabine: A preliminary in vitro study*, **Journal of Cellular Physiology**, Volume :234, Pages: 4959-4969, ISSN: 0021-9541, **2019**
10. V Panzetta, MG Pugliese, I Musella, M De Menna, PA Netti, **S Fusco\***, *A biophysical analysis to assess x-ray sensitivity of healthy and tumor cells*, **Radiation Protection Dosimetry**, Volume: 183, Pages 116-120, ISSN: 0144-8420, **2019**
11. V Panzetta, MG Pugliese, G Di Gennaro, C Federico, C Arricchiello, P Muto, PA Netti and **S Fusco\***, *X-rays affect cytoskeleton assembly and nanoparticle uptake: Preliminary results*, **Il Nuovo Cimento**, 41 C 204, ISSN: 2037-4909, **2018**
12. V Panzetta, D Guarnieri, A Paciello, F Della Sala, O Muscetti, L Raiola, P A Netti, **S Fusco\***, *The ECM mechanosensing regulates cytoskeleton assembly and receptor-mediated endocytosis of nanoparticles*, **ACS Biomaterials Science & Engineering**, Volume: 3, Pages: 1586-1594, ISSN: 2373-9878, **2017**
13. **S Fusco\***, V Panzetta, P A Netti, *Mechanosensing of Substrate Stiffness Regulates Focal Adhesions Dynamics in Cell*, **Meccanica**, Volume: 52, Pages: 3389-3398, ISSN: 0025-6455, **2017**
14. V Panzetta, I Musella, I Rapa, M Volante, P A Netti, **S Fusco\***, *Mechanical Phenotyping of Cells and Extracellular Matrix as Grade and Stage Markers of Lung Tumor Tissues*, **Acta Biomaterialia**, Volume: 57, Pages: 334-341, ISSN: 2373-9878, **2017**
15. V Brancato, A Garziano, F Gioiella, F Urciuolo, G Imparato, V Panzetta, **S Fusco**, PA Netti, *3D is not enough: Building up a cell instructive microenvironment for tumoral stroma microtissues*, **Acta Biomaterialia**, Volume: 47, Pages: 1-13, ISSN: 1742-7061, **2017**
16. V Panzetta, M De Menna, I Musella, M Pugliese, M Quarto, P A Netti, **S Fusco\***, *X-rays effects on cytoskeleton mechanics of healthy and tumor cells*, **Cytoskeleton**, Volume: 74, Pages: 40-52, ISSN: 1949-3584, **2016**

17. **S Fusco**<sup>1</sup>, M Fernández-Gutiérrez<sup>1</sup>, L Mayol, J San Román, A Borzacchiello, *Stimuli-responsive chitosan/poly (N-isopropylacrylamide) semi-interpenetrating polymer networks: effect of pH and temperature on their rheological and swelling properties*, L Ambrosio, **Journal of Materials Science: Materials in Medicine**, Volume: 27, Pages: 1-8, ISSN: 0957-4530, **2016**
18. **S Fusco\***, P Memmolo, L Miccio, F Merola, M Mugnano, A Paciello, P Ferraro and PA Netti, *Nanomechanics of a fibroblast suspended using point-like anchors reveal cytoskeleton formation*, **RSC Advances**, Volume: 6, Pages: 24245-24249, ISSN: 2046-2069, **2016**
19. F Urciuolo, A Garziano, G Imparato, V Panzetta, **S Fusco**, C Casale, PA Netti, *Biophysical properties of dermal building-blocks affect extra cellular matrix assembly in 3D endogenous macrotissue*, **Biofabrication**, Volume: 8, Page: 015010, ISSN: 1758-5082, **2016**
20. D Guarnieri, O Muscetti, A Falanga, **S Fusco**, V Belli, E Perillo, E Battista, V Panzetta, S Galdiero, PA Netti, *Surface decoration with gH625-membranotropic peptides as a method to escape the endo-lysosomal compartment and reduce nanoparticle toxicity*, **Nanotechnology**, Volume: 26, Issue: 41, Page: 415101, ISSN: 0957-4484, **2015**
21. **S Fusco**, V Panzetta, V Embrione, PA Netti, *Crosstalk between focal adhesions and material mechanical properties governs cell mechanics and functions*, **Acta Biomaterialia**, Volume: 23, Pages: 63-71, ISSN: 1742-7061, **2015**
22. V Panzetta, M De Menna, D Bucci, V Giovannini, M Pugliese, M Quarto, **S Fusco\***, PA Netti, *X-Ray Irradiation affects morphology, proliferation and migration rate of healthy and cancer cells*, **Journal of Mechanics in Medicine and Biology**, Volume: 15, Issue: 02, Page: 1540022, ISSN: 0219-5194, **2015**
23. A Troiano, IS Lomoriello, O di Martino, **S Fusco**, A Pollice, M Vivo, G La Mantia, V Calabrò, *Y-box Binding Protein-1 Is Part of a Complex Molecular Network Linking  $\Delta Np63\alpha$  to the PI3K/akt Pathway in Cutaneous Squamous Cell Carcinoma*, **Journal of cellular physiology**, Volume: 230, Issue: 9, Pages: 2067-2074, ISSN: 0021-9541, **2015**
24. M Tussellino, R Ronca, F Formiggini, N De Marco, **S Fusco**, PA Netti, R Carotenuto, *Polystyrene nanoparticles affect *Xenopus laevis* development*, **Journal of Nanoparticle Research**, Volume: 17, Issue: 2, Pages: 1-17, ISSN: 1388-0764, **2015**
25. E Battista, F Causa, V Lettera, V Panzetta, D Guarnieri, **S Fusco**, F Gentile, PA Netti, *Ligand engagement on material surfaces is discriminated by cell mechanosensing*, **Biomaterials**, Volume: 45, Pages: 72-80, ISSN: 0142-9612, **2015**

26. DM Monti, D Guarnieri, G Napolitano, R Piccoli, PA Netti, **S Fusco**, A Arciello, *Biocompatibility, uptake and endocytosis pathways of polystyrene nanoparticles in primary human renal epithelial cells*, **Journal of biotechnology**, Volume: 193, Pages: 3-10, **ISSN: 0142-9612, 2015**
27. I Fiorentino, R Gualtieri, V Barbato, V Mollo, S Braun, A Angrisani, M Turano, M Furia, PA Netti, D Guarnieri, **S Fusco**, R Talevi, *Energy independent uptake and release of polystyrene nanoparticles in primary mammalian cell cultures*, **Experimental cell research**, Volume: 330, Issue: 2, Pages: 240-247, **ISSN: 0014-4827, 2015**
28. L Miccio, P Memmolo, F Merola, **S Fusco**, V Embrione, A Paciello, M Ventre, PA Netti, P Ferraro, *Particle tracking by full-field complex wavefront subtraction in digital holography microscopy*, **Lab on Chip**, Volume: 14, Issue: 6, Pages: 1129-1134, **ISSN: 1473-0189, 2014**
29. P Memmolo, L Miccio, F Merola, A Paciello, V Embrione, **S Fusco**, P Ferraro, PA Netti, *Investigation on specific solutions of Gerchberg-Saxton algorithm*, **Optics and Lasers in Engineering**, 52 (2014): 206-211, **ISSN: 0143-8166, 2014**
30. D Guarnieri, S Sabella, O Muscetti, V Belli, MA Malvindi, **S Fusco**, E De Luca, PP Pompa, PA Netti, *Transport across the cell-membrane dictates nanoparticle fate and toxicity: a new paradigm in nanotoxicology*, **Nanoscale**, Volume: 6, Issue: 17, Pages: 10264-10273, **ISSN: 2040-3372, 2014**
31. D Guarnieri, A Falanga, O Muscetti, R Tarallo, **S Fusco**, M Galdiero, S Galdiero, PA Netti, *Shuttle-mediated nanoparticle delivery to the blood-brain barrier*, **Small**, Volume: 9, Issue: 6, Page: 806, **ISSN: 1613-6810, 2013**
32. E Pizzo, C Sarcinelli, J Sheng, **S Fusco**, F Formiggini, PA Netti, W Yu, G D'Alessio, G Hu, *Ribonuclease/angiogenin inhibitor 1 regulates stress-induced subcellular localization of angiogenin to control growth and survival*, **Journal of Cell Science**, Volume: 126, Pages: 4308-4319, **ISSN: 0021-9533, 2013**
33. M Biondi, **S Fusco**, AL Lewis, PA Netti, *Investigation of the mechanisms governing doxorubicin and irinotecan release from drug-eluting beads: mathematical modeling and experimental verification*, **Journal of Materials Science: Materials in Medicine**, Volume: 24, Issue: 10, Pages: 2359-2370, **ISSN: 0957-4530, 2013**
34. **S Fusco**<sup>1</sup>, D Guarnieri<sup>1</sup>, A Guaccio<sup>1</sup>, Netti, PA, *Effect of serum proteins on polystyrene nanoparticle uptake and intracellular trafficking in endothelial cells*, **Journal of Nanoparticle Research**, Volume: 10 Issue: 9 Pages: 4295-4309, **ISSN: 1388-0764, 2011**

35. L Mayol, M Biondi, F Quaglia, **S Fusco**, A Borzacchiello, L Ambrosio, MI La Rotonda, *Injectable Thermally Responsive Mucoadhesive Gel for Sustained Protein Delivery*, **Biomacromolecules**, Volume: 12 Issue: 1 Pages: 28-33, **ISSN: 1525-7797, 2011**
36. **S Fusco**<sup>1</sup>, M Biondi<sup>1</sup>, AL Lewis, PA Netti, *New Insights into the Mechanisms of the Interactions Between Doxorubicin and the Ion-Exchange Hydrogel DC Bead™ for Use in Transarterial Chemoembolization (TACE)*, **Journal of Biomaterials Science**, Polymer Edition, Volume: 22, Issue: 15, Pages: 1-22, **ISSN: 0920-5063, 2011**
37. G Pesce, AC De Luca, G Rusciano, PA Netti, **S Fusco** and A Sasso, *Microrheology of complex fluids using optical tweezers: a comparison with macrorheological measurements*, **Journal of Optics A: Pure and Applied Optics**, 11 034016 (11pp), **ISSN: 1464-4258, 2009**
38. **S Fusco**, A Borzacchiello, PA Netti, *Micro and Macro Characterization of PEO-PPO-PEO Triblocks Hydrogels*, **Macromolecular Symposia**, Volume: 266, Issue: 1, Pages: 92-95, **ISSN: 1022-1360, 2008**
39. G D'Errico, M De Lellis, G Mangiapia, A Tedeschi, O Ortona, **S Fusco**, A Borzacchiello, L Ambrosio, *Structural and mechanical properties of UV-photo-cross-linked poly(N-vinyl-2-pyrrolidone) hydrogels*, **Biomacromolecules**, Volume: 9, Issue: 1, Pages: 231-240, **ISSN: 1525-7797, 2008**
40. **S Fusco**, A Borzacchiello, L Miccio, G Pesce, G Rusciano, A Sasso, PA Netti, *Biorheology, High frequency viscoelastic behaviour of low molecular weight hyaluronic acid water solutions*, **Biorheology**, Volume 44, Number 5-6, **ISSN: 0006-355X, 2007**
41. G Pesce, A Sasso, **S Fusco**, *Viscosity measurements on micron-size scale using an optical tweezers*, **Review of Scientific Instruments**, Volume: 76 Article Number: 115105, **ISSN: 0034-6748, 2005**

## REVIEW

1. La Verde, G., Artiola, V., Panzetta, V., Pugliese, M., Netti, P. A., & **Fusco, S.**, Cytoskeleton Response to Ionizing Radiation: A Brief Review on Adhesion and Migration Effects. **Biomedicines**, 9(9), 1102, **2021**
2. **S Fusco**, A Borzacchiello, PA Netti, *Perspectives on micellation of PEO-PPO-PEO copolymers and their utilization in biomedical applications*, **Journal of Bioactive and Biocompatible Polymers**, Volume: 21 Issue: 2 Pages: 149-164, **ISSN: 0883-9115, 2006**

## CONFERENCE PAPERS

1. **Effects of high energy X-rays on cell morphology and functions**, V Panzetta, I Musella, M Pugliese, C Piccolo, G Pasqua, PA Netti, **S Fusco**, **2017 Bioengineering (ENBENG), IEEE 5th Portuguese Meeting on**, doi: 10.1109/ENBENG.2017.7889448, **2017**
2. **Investigation on cytoskeleton dynamics for non-adherent cells under point-like stimuli**, L Miccio, P Memmolo, F Merola, M Mugnano, **S Fusco**, A Paciello, Pietro Ferraro, Paolo A Netti, **SPIE Optical Metrology**, 95290P-95290P-6, **2015**
3. **Studying cell-material interaction by new particle tracking in digital holography**, L Miccio, P Memmolo, F Merola, **S Fusco**, PA Netti, P Ferraro, Digital Holography and Three-Dimensional Imaging, DH 2014; Seattle, WA; United States; 13 July 2014 through 17 July **2014**
4. **Label-free 3D imaging for lab-on-chip biomedical applications**, L Miccio, F Merola, P Memmolo, S Fusco, PA Netti, P Ferraro, Conference on Lasers and Electro-Optics Europe - Article number 6989689 - Technical Digest Volume 2014-January, **2014**
5. **Investigation on cytoskeleton dynamics for non-adherent cells subjected to point-like stimuli by Digital Holographic Microscopy and Holographic Optical trapping**, L Miccio, F Merola, P Memmolo, M Mugnano, **S Fusco**, P A Netti, P Ferraro, **SPIE Photonics Europe**, **2014**
6. **A new 3D tracking method for cell mechanics investigation exploiting the capabilities of digital holography in microscopy**, L Miccio, P Memmolo, F Merola, **S Fusco**, PA Netti, P Ferraro, **SPIE BIOS**, 89471L-89471L-7, **2014**
7. **A new 3D tracking method exploiting the capabilities of digital holography in microscopy**, L Miccio, P Memmolo, F Merola, **S Fusco**, V Embrione, PA Netti, P Ferraro, **SPIE Optical Metrology**, 87920S-87920S-6, **2013**
8. **Cell mechanics investigation by digital holographic microscopy**, L Miccio, P Memmolo, F Merola, **S Fusco**, V Embrione, PA Netti, P Ferraro, **SPIE Optical Metrology**, 87921F-87921F-6, **2013**
9. **Cell-material interaction investigated by Digital Holographic microscopy**, L Miccio, P Memmolo, F Merola, **S Fusco**, V Embrione, PA Netti, P Ferraro, **Conference on Lasers & Electro-Optics Europe & International Quantum Electronics Conference CLEO EUROPE/IQEC**, **2013**
10. **Xenopus laevis come modello per lo studio degli effetti tossici da nanoparticelle**, M Tussellino, G Benvenuto, F Formiggini, **S Fusco**, P Netti, R Carotenuto, **59° Convegno Gruppo Embriologico Italiano**, **2013**



- 11. gH625 modified polystyrene nanoparticle: uptake and permeation across blood brain endothelium**, A Falanga, D Guarnieri, R Tarallo, O Muscetti, S Fusco, M Cantisani, PA Netti, **Workshop on Bioactive Peptides, 2012**
- 12. A novel system for delivery**, A Falanga, D Guarnieri, R Tarallo, O Muscetti, S Fusco, M Cantisani, PA Netti, **Divisione di Chimica dei Sistemi Biologici DSCB, 2012**
- 13. Injectable thermally responsive mucoadhesive gel for sustained protein delivery**, L Mayol, M Biondi, F Quaglia, M La Rotonda, S Fusco, A Borzacchiello, L Ambrosio, 24th European Conference on Biomaterials, EBS 2011; Dublin; Ireland; Code 100603; 4 September 2011 through 8 September 2011
- 14. UV-photocrosslinked poly(N-vinyl-2-pyrrolidone) hydrogels**, A Borzacchiello, S Fusco, G D'errico, L Ambrosio, 24th European Conference on Biomaterials, EBS 2011; Dublin; Ireland; Code 100603; 4 September 2011 through 8 September 2011
- 15. Nano-toxicity and embryonic development**, M Tussellino, N De Marco, S Fusco, P Netti, R Talevi, R Carotenuto, **Comparative Medicine** 61, 26-27, **2011**
- 16. Effetti tossici dell'impiego di nanoparticelle durante l'embriogenesi di Xenopus laevis**, M Tussellino, N De Marco, S Fusco, P Netti, R Talevi, **57° Convegno Gruppo Embriologico Italiano, 2011**
- 17. High frequency shock absorber properties of hyaluronic acid water solutions**, S Fusco, A Borzacchiello, PA Netti, 8th World Biomaterials Congress 2008, WBC 2008; Amsterdam; Netherlands; Code 93751; 28 May 2008 through 1 June 2008
- 18. Optical tweezers calibration: a quantitative tool for local viscosity investigation**, G.Pesce, A.Sasso, P.Netti, S.Fusco, in "Laser Physics and Applications", Proceedings of SPIE Vol. 5830, 368-378, **2005**.
- 19. Optical tweezers as a tool for microrheology of simplex and complex fluids**, G Pesca, A Sasso, S Fusco, A Borzacchiello, PA Netti, Proceedings of SPIE - The International Society for Optical Engineering Volume 5514, 2004, Article number 66, Pages 487-493, Optical Trapping and Optical Micromanipulation; Denver, CO; United States; 2 August 2004 through 6 August **2004**

#### COMMUNICATIONS

**Embo Workshop - Stem cell mechanobiology in development and disease**, Capri (Italy), October **2015**

- **Time dependent mechanical X'talk between Stem Cells and ECM, S Fusco, V Panzetta, M De Menna, I Musella, PA Netti**
- **Short-term effects of time-dependent material mechanical properties on Mesenchymal Stem Cells functions, V Panzetta, S Fusco, M De Menna, I Musella, PA Netti**

**6th Annual Symposium - Physics of Cancer, Leipzig, Germany, September 7-9, 2014**

- **Effect of x-irradiation on cell morphology, cytoskeleton network, and adhesion, S Fusco, V Panzetta, M De Menna, I Musella, M Quarto, M Pugliese, PA Netti**

**XIX International Conference on Mechanics in Medicine and Biology, Bologna (Italy), September 2014**

- **X-irradiation effects on healthy and tumor cell, V Panzetta, S Fusco, M De Menna, I Musella, M Quarto, M Pugliese PA Netti**

**6th AFM BioMed Conference, San Diego (California), December 2014**

- **AFM-time dependent material mechanical properties characterization for stem cell culture, V Panzetta, S Fusco, M De Menna, I Musella, PA Netti**

**E-MRS 2013 Spring Meeting, Strasburg, May 28-30 Congress Center - Strasbourg, France**

- **Influence of substrate stiffness on cytoskeleton mechanics, Sabato Fusco, Valeria Panzetta, Paolo A. Netti – Istituto Italiano di Tecnologia.**
- **Cell hardening in response of 3D ECM deformations, Sabato Fusco, Valeria Panzetta, Paolo A. Netti – Istituto Italiano di Tecnologia.**
- **Bioinspired nano-shuttles to overcome blood brain barrier, Daniela Guarnieri, Annarita Falanga, Ornella Muscetti, Rossella Tarallo, Sabato Fusco, Massimiliano Galdiero, Stefania Galdiero, Paolo Netti – Istituto Italiano di Tecnologia.**
- **The effect of serum protein adsorption on Cell-Adhesion to RGD Functionalized Surfaces Edmondo Battista, Filippo Causa, Daniela Guarnieri, Valeria Panzetta, Sabato Fusco, Gentile Francesco, Paolo Antonio Netti – Istituto Italiano di Tecnologia.**

**4th Mechanobiology Workshop and Biophysical Society Meeting on “Actin, the Cytoskeleton, and the Nucleus”, Singapore, November 9-12, 2010:**

- **Mapping Cytoskeleton Mechanical Properties of NIH Cells in vitro,**

**Sabato Fusco**, Valeria Panzetta, Paolo Netti – Istituto Italiano di Tecnologia.

**9th International Symposium on Scanning Probe Microscopy & Optical tweezers in Life Sciences**, Umspannwerk Ost, Berlin, 6-7 October 2010:

- **NIH cell viscoelasticity by using multiple particle tracking**, **Sabato Fusco**, Valeria Panzetta, Paolo Netti – Istituto Italiano di Tecnologia.

**Third International NanoBio Conference**, 2010, 24- 27th August 2010 ETH Zurich, CH:

- **Polystyrene nanoparticles uptake by endothelial cells: effect of serum proteins**, D.Guarnieri, A. Guaccio, **S. Fusco**, P.A. Netti – Istituto Italiano di Tecnologia.

**ESB2010, 23rd European Conference on Biomaterials**, 11-15th September 2010 Tampere, Finland:

- **Effect of serum proteins on endothelial cellular uptake of polystyrene nanoparticles**, D.Guarnieri, A. Guaccio, **S. Fusco**, P.A. Netti – Istituto Italiano di Tecnologia.

**4th AltUN Annual Meeting Innovation in Pharmaceuticals: a “glimpse” in the Biotech world**, 26-27 February 2010 Napoli, Italia:

- **Ion-exchange hydrogel DC Beads for transarterial chemoembolization (TACE): Doxorubicin – Microsphere interactions**, Marco Biondi, **Sabato Fusco**, Andrew L. Lewis, Paolo A. Netti – Istituto Italiano di Tecnologia.

**2nd National Nanomedicine Conference** – September 21-22, 2009, Università degli Studi di Pavia, Italy:

- **Exploring mechanisms of endothelial cell membrane crossing by polystyrene nanoparticles**, P.A. Netti, , D. Guarnieri, A. Guaccio, **S. Fusco**, CRIB - Interdisciplinary Research Center on Biomaterials, University of Naples Federico II, Naples.

**1st Nanotoday Conference** – August 2-5 2009, Singapore:

- **Investigation on Nanoparticle Fate Across Endothelial Barrier**, P. Netti, D. Guarnieri, A. Guaccio, **S Fusco**, CRIB - Interdisciplinary Research Center on Biomaterials, University of Naples Federico II, Naples

**Frontiers in Biomedical Polymers** – June 24-27 2007, Ghent (Belgium):

- **Synthesis and characterization of novel stimuli-responsive hydrogels based on chitosan**, A. Borzacchiello, **S Fusco**, P.A. Netti, L. Ambrosio, M.

Fernández C. Elvira and J. San Roman

**International Congress on Biohidrogels** – November 14-18 2007, Viareggio (Italy):

- **Micro and Macro Characterization of PEO-PPO Triblocks Hydrogels, S. Fusco**, CRIB - Interdisciplinary Research Center on Biomaterials, University of Naples Federico II, Naples.

**AERC 2007 4th Annual European Rheology Conference** – April 12-14, Napoli – Italy:

- **High frequency microrheology of hyaluronic acid water solutions, S. Fusco**, A. Borzacchiello, G. Pesce, A. Sasso, P. A. Netti, CRIB - Interdisciplinary Research Center on Biomaterials, University of Naples Federico II, Naples.

**The 20<sup>th</sup> European Conference on Biomaterials** – September 27 to October 1, 2006, Cites des Congres, Nantes, France:

- **Modified PEO-PPO Block Copolymers: Micro and Macro Characterization, S. Fusco**, A. Borzacchiello, D. Cohn, P.A. Netti, CRIB - Interdisciplinary Research Center on Biomaterials, University of Naples Federico II, Naples.

**International Conference on Advances in Biomaterials for Drug Delivery and regenerative Medicine** – June 11-16, 2006, Capri (Italy):

- **Ion-exchange doxorubicin-loaded polyvinyl alcohol microspheres: release kinetics and diffusion features**, M. Biondi, G. Cardone, S. Fusco, V. Gonzalez, A. Lewis, P.A. Netti, CRIB - Interdisciplinary Research Center on Biomaterials, University of Naples Federico II, Naples.

**VIIth International Symposium on Frontiers in Biomedical Polymers** – 16-19 June 2005, Granada Spain:

- **Modified PEO-PPO copolymers in aqueous solutions, S. Fusco**, P. A. Netti, Università di Napoli Federico II, Dipartimento di Ingegneria dei Materiali e della Produzione, A. Borzacchiello, L. Ambrosio, Consiglio Nazionale delle Ricerche, D. Cohn, School of Applied Science and Tech., Casali Inst. of Appl. Chem, The Hebrew University of Jerusalem, Israel.

**13th General Conference of the European Physical Society – Beyond Einstein – Conference III** – 11–15 July 2005, Bern:

- **Brownian motion analysis of optically trapped particles for local viscosity measurements**, A.Sasso, G.Pesce, S.Fusco.

**The XIVth International Congress on Rheology – 22-27 August 2004 - COEX Convention Center, Seoul , Korea:**

- **Rheological properties of composite hydrogels**, **S Fusco**, A Borzacchiello, L Nicolais, PA Netti, Università di Napoli Federico II, Dipartimento di Ingegneria dei Materiali e della Produzione

**The International Symposium on Optical Science and Technology – SPIE 49<sup>th</sup> annual meeting - 2–6 August 2004 - Denver, Colorado, USA:**

- **Optical tweezers as a tool for microrheology of simplex and complex fluids**, G. Pesce, A. Sasso, Univ. di Napoli Federico II and Istituto Nazionale per la Fisica della Materia (Italy); **S. Fusco**, P. Netti, Univ. di Napoli Federico II; A. Borzacchiello, Consiglio Nazionale delle Ricerche.

#### **INVITED CONFERENCES, WORKSHOP AND SEMINARS**

- Material-cytoskeleton mechanical crosstalk regulates cell functions and behavior, **Mechanobiology of the cell and tissues morphogenesis – Workshop** – Milan – September 9, 2014
- Time dependent mechanical properties ECM characterization for cell culture by traction force microscopy, **XXII Congresso - Associazione Italiana di Meccanica Teorica e Applicata - AIMETA**, Scuola Politecnica - Sede Architettura - Università di Genova, Genova, 14-17 Settembre **2015**
- Investigation on the mechanisms of cell hardening under uniaxial stretching, **10<sup>th</sup> European Solid Mechanics Conference (European Mechanics Society), Biomechanics – Cell Mechanics Symposium** – Bologna – July 2-6, 2018

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Date 02.11.2022

Sabato Fusco