

## 1. CHAPTERS IN SCIENTIFIC BOOKS

- Emmanuel Stratakis, [Anthi Ranella](#), Costas Fotakis  
"Laser-Based Biomimetic Tissue Engineering",  
Laser Technology in Biomimetics, 2013, p:211-236, Springer Berlin Heidelberg.  
Editors: Volker Schmidt, Maria Regina Beleggratis Springer-Verlag.
- Emmanuel Stratakis, [Anthi Ranella](#), Costas Fotakis  
"Future Perspectives",  
Laser Technology in Biomimetics, 2013, p:259-262, Springer Berlin Heidelberg.  
Editors: Volker Schmidt, Maria Regina Beleggratis Springer-Verlag.
- Christianna Kyvelidou, George J. Tservelakis, Katerina Vardaki, George Filippidis, [A. Ranella](#), Costas Fotakis and Irene Athanassakis  
"Qualification and Quantification of Pre-Implantation Embryo Health"  
Advances in Medicine and Biology, 2013, vol:65, Nova Science Publishers, Inc.

## 2. REVIEW PAPERS

\*: corresponding author

1. L. Papadimitriou, P. Manganas, [A. Ranella\\*](#), E. Stratakis  
Biofabrication for neural tissue engineering applications.  
*Materials Today Bio* (2020), 100043
2. C. Simitzi, K. Karali, [A. Ranella](#), E. Stratakis.  
Controlling the outgrowth and functions of neural stem cells: The effect of surface topography.  
*ChemPhysChem* (2018) 19 (10), 1143-1163.
3. C. Simitzi, [A. Ranella](#) and E. Stratakis.  
Controlling the morphology and outgrowth of nerve and neuroglial cells: The effect of surface topography".  
*Acta Biomaterialia* (2017) 51, 21-52.
4. E. Stratakis, [A. Ranella](#), C. Fotakis,  
Biomimetic micro/nanostructured functional surfaces for microfluidic and tissue engineering applications,  
*Biomicrofluidics*, 5, 013411, (2011). Among the top 20 most downloaded articles (09/2011).
5. E. Stratakis, [A. Ranella](#), M. Farsari and C. Fotakis  
Laser based micro/nano-engineering for biological applications.  
*Progress in Quantum Electronics*, 33, 127, (2009).

## 3. PUBLICATIONS IN PEER-REVIEWED JOURNALS

\*: corresponding author

1. G. Flamourakis, I. Spanos, Z. Vangelatos, P. Manganas, L. Papadimitriou, C. Grigoropoulos, [A. Ranella\\*](#), M. Farsari

Laser-made 3D auxetic metamaterial scaffolds for Tissue Engineering applications *Macromol. Mater. Eng.* (2020), 2000238.

**2.** D. Angelaki, P. Kavatzikidou, C. Fotakis, E. Stratakis, [A. Ranella\\*](#)

Laser-induced topographies enable the spatial patterning of co-cultured peripheral nervous system cells *Materials Science and Engineering: C* (2020), 111144.

**3.** S. Pisani, I. Genta, R. Dorati, P. Kavatzikidou, D. Angelaki, A. Manousaki, K. Karali, [A. Ranella](#), E. Stratakis, B. Conti

Biocompatible polymeric electrospun matrices: Micro-nanotopography effect on cell behavior. *Journal of Applied Polymer Science* (2020), 49223.

**4.** K. Parkatzidis, E. Kabouraki, A. Selimis, M. Kaliva, [A. Ranella](#), M. Farsari, M. Vamvakaki.

Initiator-Free, Multiphoton Polymerization of Gelatin Methacrylamide. *Macromolecular Materials and Engineering* (2018) 303 (12), 1800458.

**5.** E. Babaliari, P. Kavatzikidou, D. Angelaki, L. Chaniotaki, A. Manousaki, A. Siakouli-Galanopoulou, [A. Ranella\\*](#), E. Stratakis.

Engineering cell adhesion and orientation via ultrafast laser fabricated microstructured substrates. *International journal of molecular sciences* (2018) 19 (7), 2053.

**6.** A. Kostopoulou, K. Brintakis, E. Fragogeorgi, A. Anthousi, L. Manna, S. Begin-Colin, C. Billotey, [A. Ranella](#), G. Loudos, I. Athanassakis, A. Lappas.

Iron Oxide Colloidal Nanoclusters as Theranostic Vehicles and Their Interactions at the Cellular Level. *Nanomaterials* (2018) 8 (5), 315.

**7.** C. Simitzi, P Harimech, S Spanou, C Lanara, A Heuer-Jungemann, A. Manousaki, C. Fotakis, [A. Ranella](#), A. G Kanaras, E. Stratakis.

Cells on hierarchically-structured platforms hosting functionalized nanoparticles. *Biomaterials science* (2018) 6 (6), 1469-1479.

**8.** A. Prigipaki, K. Papanikolopoulou, E. Mossou, E.P. Mitchell, V Trevor Forsyth, A. Selimis, [A. Ranella](#), A. Mitraki.

Laser processing of protein films as a method for accomplishment of cell patterning at the microscale. *Biofabrication* (2017) 9(4) Article Number:045004.

**9.** C. Yiannakou, C. Simitzi, A. Manousaki, C. Fotakis, [A. Ranella](#), E. Stratakis.

Cell patterning via laser micro/nano structured silicon surfaces. *Biofabrication* (2017) 9(2) Article Number: 025024 .

**10.** G. Deidda, S.V.R. Jonnalagadda, J.W. Spies, [A. Ranella](#), E. Mossou, V. Forsyth, E. Mitchell, M. Bowler, P. Tamamis, A. Mitraki.

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**11.** A. Daskalova, CSR Nathala, P. Kavatzikidou, [A. Ranella](#), R. Szoszkiewicz, W. Husinsky, C Fotakis.

FS laser processing of bio-polymer thin films for studying cell-to-substrate specific response. *Applied Surface Science* (2016) 382, 178-191.

- 12.** C. Simitzi, E. Stratakis, C. Fotakis, I. Athanassakis, [A. Ranella\\*](#). Microconical silicon structures influence NGF-induced PC12 cell morphology. *J Tissue Eng Regen Med* (2015) 9(4), 424-434.
- 13.** C. Simitzi, P. Efstathopoulos, A. Kourgiantaki, [A. Ranella](#), I. Charalampopoulos, C. Fotakis, I. Athanassakis, E. Stratakis, A. Gravanis. Laser fabricated discontinuous anisotropic microconical substrates as a new model scaffold to control the directionality of neuronal network outgrowth. *Biomaterial* (2015) 67, 115-128
- 14.** I. Zerva, C. Simitzi, A. Siakouli-Galanopoulou, [A. Ranella](#), E. Stratakis, C. Fotakis, I. Athanassakis  
Implantable vaccine development using in vitro antigen-pulsed macrophages absorbed on laser micro-structured Si scaffolds. *Vaccine* (2015) 33(27), 3142-3149.
- 15.** A. Kostopoulou, S. KP Velu, K. Thangavel, F. Orsini, K. Brintakis, S. Psycharakis, [A. Ranella](#), L. Bordonali, A. Lappas, A. Lascialfari  
Colloidal assemblies of oriented maghemite nanocrystals and their NMR relaxometric properties. *Dalton Transactions* (2014) 43 (22), 8395-8404.
- 16.** M. Castillejo, E. Rebollar, M. Oujja, M. Sanz, A. Selimis, M. Sigletou, S. Psycharakis, [A. Ranella](#), C. Fotakis  
Fabrication of porous biopolymer substrates for cell growth by UV laser: The role of pulse duration. *Applied Surface Science* (2012) 258: 8919– 8927
- 17.** V. Melissinaki, A.A Gill, I. Ortega, M. Vamvakaki, [A. Ranella](#), J.W. Haycock, C. Fotakis, M. Farsari and F Claeysens  
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- 18.** N. Koufaki, [A. Ranella](#), K.E Aifantis, M. Barberoglou, S. Psycharakis, C. Fotakis and Emmanuel Stratakis  
Controlling cell adhesion via replication of laser micro/nano-textured surfaces on polymers. *Biofabrication* (2011) 3: 045004 (12pp)
- 19.** S. Psycharakis, A. Tosca, V. Melissinaki, A. Giakoumaki and [A. Ranella\\*](#)  
Tailor-made three-dimensional hybrid scaffolds for cell cultures. *Biomed. Mater.* (2011) 6: 045008 (16pp)
- 20.** C. Kyvelidou, G.J. Tserevelakis , G. Filippidis, [A. Ranella](#), A. Kleovoulou, C. Fotakis, I. Athanassakis  
Following the course of pre-implantation embryo patterning by non-linear microscopy. *Journal of Structural Biology* (2011) 176: 379–386
- 21.** [A. Ranella](#), M Barberoglou, S Bakogianni, C Fotakis, E Stratakis  
Tuning cell adhesion by controlling the roughness and wettability of 3D micro/nano silicon structures. *Acta Biomaterialia* (2010) 6 (7), 2711-2720
- 22.** F. Claeysens, E. A. Hasan, Arune Gaidukeviciute, D. S. Achilleos, [A. Ranella](#), C. Reinhardt, A. Ovsianikov, X. Shizhou, C. Fotakis, M. Vamvakaki, B. N. Chichkov, and M. Farsari  
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- 23.** V. Dinca, E. Kasotakis, A. Mourka, [A. Ranella](#), M. Farsari, A. Mitraki, and C. Fotakis  
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- 24.** V. Dinca, [A. Ranella](#), M. Farsari, D. Kafetzopoulos, M. Dinescu, A. Popescu and C. Fotakis  
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- 25.** V. Dinca, E. Kasotakis, J. Catherine, A. Mourka, [A. Ranella](#), A. Ovsianikov, B.N. Chichkov, M. Farsari, A. Mitraki and C. Fotakis  
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- 26.** V. Dinca, [A. Ranella](#), A. Popescu, M. Dinescu, M. Farsari and C. Fotakis  
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- 27.** [A. Ranella](#), S. Vassiliadis, C. Mastora, V. Michailidou, E. Dionyssopoulou and I. Athanassakis  
Constitutive Intracellular Expression of Human Leukocyte Antigen (HLA)-DO and HLA-DR But Not HLA-DM in Trophoblast Cells. *Human Immunology* (2005) 66:43-55
- 28.** I. Athanassakis, [A. Ranella](#), S. Vassiliadis  
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- 29.** I. Athanassakis, Y. Aifantis, [A. Ranella](#), K. Giouremou S. Vassiliadis  
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- 30.** I. Athanassakis, M. Pafilis, [A. Ranella](#), S. Vassiliadis  
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- 31.** S. Vassiliadis, [A. Ranella](#), L. Papadimitriou, A. Makrygiannakis and I. Athanassakis  
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- 32.** I. Athanassakis, Y. Aifantis, [A. Ranella](#), S. Vassiliadis  
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#### **4. SELECTED PAPERS IN CONFERENCE PROCEEDINGS**

- 1.** [A. Ranella](#), M. Sygletou, K. Terzaki, C. Simitzi, A. Selimis, C. Fotakis  
Laser processing of natural biopolymers for tissue engineering applications. *Journal of Tissue Engineering and Regenerative*, 8: 473-474 (2014)

2. A. Kostopoulou, K. Brintakis, A. Lascialfari, M. Angelakeris, M. Vasilakaki, K. Trohidou, A. P Douvalis, S. Psycharakis, [A. Ranella](#), L. Manna, A. Lappas.

Iron-oxide colloidal nanoclusters: from fundamental physical properties to diagnosis and therapy.

SPIE BiOS. International Society for Optics and Photonics, 895517-895517-10 (2014).

3. A. Daskalova, A. Selimis, A. Manousaki, D. Gray, [A. Ranella](#), C. Fotakis, Surface modification of collagen-based biomaterial induced by pulse width variable femtosecond laser pulses. SPIE (Society). PROCEEDINGS- SPIE THE INTERNATIONAL SOCIETY FOR OPTICAL ENGINEERING; 8770; 8770 16 (2013).

4. I. Zerva, C. Simitzi, [A. Ranella](#), E. Stratakis, C. Fotakis, I. Athanassakis. 3-dimensional laser structured scaffolds improve macrophage adherence and antigen-specific response.

Procedia Engineering 59: 211-218 (2013).

5. [A. Ranella](#), CH. Simitzi, M. Barberoglou, S. Melissinaki, S. Psycharakis, A. Selimis, M. Farsari, E. Stratakis, I. Athanassakis, C. Fotakis.

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6. F Claeysens, EA Hasan, A Gaidukeviciute, DS Achilleos, [A. Ranella](#), C Reinhardt, A Ovsianikov, X Shizhou, C Fotakis, M Vamvakaki, BN Chichkov, Maria Farsari

Three-dimensional Polycaprolactone Structures Fabricated by Two-Photon Polymerization

AIP Conference Proceedings 1288: 154-161 (2010)

7. C. Fotakis, M. Barberoglou, V. Zorba, E. Stratakis, E.L. Papadopoulou, [A. Ranella](#), K. Terzaki, M. Farsari

Applications of ultrafast lasers in materials processing: fabrication on self-cleaning surfaces and scaffolds for tissue engineering.

15th International School on Quantum Electronics: Laser Physics and Applications, 702702-702702-6 (2008)