

## **PUBLICATIONS IN PEER REVIEWED JOURNALS**

1. **Tserevelakis, G.J.**, Filippidis, G., Krmpot, A.J., Vlachos, M., Fotakis, C., Tavernarakis, N. Imaging Caenorhabditis elegans embryogenesis by third-harmonic generation microscopy (2010) *Micron*, 41 (5), pp. 444-447.
2. Vounisiou, P., Selimis, A., **Tserevelakis, G.J.**, Melessanaki, K., Pouli, P., Filippidis, G., Beltsios, C., Georgiou, S., Fotakis, C. The use of model probes for assessing in depth modifications induced during laser cleaning of modern paintings (2010) *Applied Physics A: Materials Science and Processing*, 100 (3), pp. 647-652.
3. **Tserevelakis, G.J.**, Filippidis, G., Megalou, E.V., Fotakis, C., Tavernarakis, N. Cell tracking in live Caenorhabditis elegans embryos via third harmonic generation imaging microscopy measurements (2011) *Journal of Biomedical Optics*, 16 (4), art. no. 046019.
4. **Tserevelakis, G.J.**, Psycharakis, S., Resan, B., Brunner, F., Gavgiotaki, E., Weingarten, K., Filippidis, G. Femtosecond laser nanosurgery of sub-cellular structures in HeLa cells by employing Third Harmonic Generation imaging modality as diagnostic tool (2012) *Journal of Biophotonics*, 5 (2), pp. 200-207.
5. Kyvelidou, C. \*, **Tserevelakis, G.J.** \*, Filippidis, G., Ranella, A., Kleovoulou, A., Fotakis, C., Athanassakis, I. Following the course of pre-implantation embryo patterning by non-linear microscopy (2011) *Journal of Structural Biology*, 176 (3), pp. 379-386.
6. Selimis, A., **Tserevelakis, G.J.**, Kogou, S., Pouli, P., Filippidis, G., Sapogova, N., Bityurin, N., Fotakis, C. Nonlinear microscopy techniques for assessing the UV laser polymer interactions (2012) *Optics Express*, 20 (4), pp. 3990-3996.
7. Faraldi, F., **Tserevelakis, G.J.**, Filippidis, G., Ingo, G.M., Riccucci, C., Fotakis, C. Multi photon excitation fluorescence imaging microscopy for the precise characterization of corrosion layers in silver-based artifacts (2013) *Applied Physics A: Materials Science and Processing*, 111 (1), pp. 177-181.
8. Krmpot, A.J., **Tserevelakis, G.J.**, Murić, B.D., Filippidis, G., Pantelić, D.V. 3D imaging and characterization of microlenses and microlens arrays using nonlinear microscopy (2013) *Journal of Physics D: Applied Physics*, 46 (19), art. no. 195101,.
9. **Tserevelakis, G.J.**, Selimis, A., Pitsios, I., Filippidis, G. The development of an image processing algorithm for the precise monitoring of a laser-polymer interaction via third harmonic generation microscopy measurements (2013) *Laser Physics*, 23 (12), art. no. 126005,.
10. **Tserevelakis, G.J.**, Megalou, E.V., Filippidis, G., Petanidou, B., Fotakis, C., Tavernarakis, N. Label-free imaging of lipid depositions in C. elegans using third-harmonic generation microscopy (2014) *PLoS ONE*, 9 (1), art. no. e84431,.

11. Filippidis, G., **Tserevelakis, G.J.**, Selimis, A., Fotakis, C. Nonlinear imaging techniques as non-destructive, high-resolution diagnostic tools for cultural heritage studies (2014) *Applied Physics A: Materials Science and Processing*, 118 (2), pp. 417-423.
12. **Tserevelakis, G.J.**, Soliman, D., Omar, M., Ntziachristos, V. Hybrid multiphoton and optoacoustic microscope (2014) *Optics Letters*, 39 (7), pp. 1819-1822.
13. Ghazaryan, A., Omar, M., **Tserevelakis, G.J.**, Ntziachristos, V. Optoacoustic detection of tissue glycation (2015) *Biomedical Optics Express*, 6 (9), pp. 3149-3156.
14. Soliman, D. \*, **Tserevelakis, G.J.** \*, Omar, M., Ntziachristos, V. Combining microscopy with mesoscopy using optical and optoacoustic label-free modes (2015) *Scientific Reports*, 5, art. no. 12902,.
15. **Tserevelakis, G. J.**, Tsagkaraki, M., Zacharakis, G. Hybrid photoacoustic and optical imaging of pigments in vegetative tissues (2016) *Journal of Microscopy*, 263: 300–306.
16. Kyvelidou, C., Sotiriou, D., Antonopoulou, T., Tsagkaraki, M., **Tserevelakis, G.J.**, Filippidis, G., Athanassakis I. L-Carnitine affects preimplantation embryo development toward infertility in mice (2016) *Reproduction* 152 (4) 283-291.
17. **Tserevelakis, G.J.**, Vrouvaki, I., Siozos, P., Melessanaki, K., Hatzigiannakis, K., Fotakis, C., Zacharakis, G. Photoacoustic imaging reveals hidden underdrawings in paintings (2017) *Scientific Reports*, 7 (1), art. no. 747,.
18. **Tserevelakis, G.J.**, Avtzi, S., Tsilimbaris, M.K., Zacharakis, G. Delineating the anatomy of the ciliary body using hybrid optical and photoacoustic imaging (2017) *Journal of Biomedical Optics*, 22 (6), art. no. 060501,.
19. **Tserevelakis, G.J.**, Tsagkaraki, M., Tsilimbaris, M.K., Plainis, S., Zacharakis, G. Photoacoustic imaging methodology for the optical characterization of contact lenses (2017) *Optics Letters*, 42 (20), pp. 4111-4114.
20. **Tserevelakis, G.J.**, Dal Fovo, A., Melessanaki, K., Fontana, R., Zacharakis, G. Photoacoustic signal attenuation analysis for the assessment of thin layers thickness in paintings (2018) *Journal of Applied Physics*, 123 (12), art. no. 123102,.
21. **Tserevelakis, G. J.**, Tsagkaraki, M., Siozos, P. Zacharakis, G. Uncovering the hidden content of layered documents by means of photoacoustic imaging (2018), *Strain*, e12289, DOI: 10.1111/str.12289.
22. Kellnberger, S., Soliman, D., **Tserevelakis, G.J.** \*, Seeger, M., Yang, H., Karlas, A., Prade, L., Omar, M., Ntziachristos, V. Optoacoustic microscopy at multiple discrete frequencies (2018) *Light: Science and Applications*, 7 (1), art. no. 109,.
23. **Tserevelakis, G.J.**, Pozo-Antonio, J.S., Siozos, P., Rivas, T., Pouli, P., Zacharakis, G. On-line photoacoustic monitoring of laser cleaning on stone: Evaluation of cleaning effectiveness and detection of potential damage to the substrate (2019) *Journal of Cultural Heritage*, 35, pp. 108-115.

24. Dal Fovo, A., **Tserevelakis, G.J.** \*, Papanikolaou, A., Zacharakis G., Fontana, R., Combined photoacoustic imaging to delineate the internal structure of paintings (2019) *Optics Letters* 44 (4), pp. 919-922.
25. **Tserevelakis, G.J.**, Tsafas, V., Melessanaki, K., Zacharakis, G., Filippidis, G. Combined multiphoton fluorescence microscopy and photoacoustic imaging for stratigraphic analysis of paintings (2019) *Optics Letters*, (in press).
26. **Tserevelakis, G.J.**, Papanikolaou, A., Pouli, P., Zacharakis, G., Listening to Laser Light Interactions with Objects of Art: A Novel Photoacoustic Approach for Imaging and Monitoring (2019) *Studies in Conservation*, (accepted).
27. **Tserevelakis, G.J.**, Lemonaki, K., Malekzadeh-Najafabadi, J., Ntziachristos V., Zacharakis, G., Non-linear response based unmixing of absorbers in photoacoustic microscopy images using single wavelength excitation (2018), *Optics Letters* (under review).
28. **Tserevelakis, G.J.**, Siozos, P., Papanikolaou, A., Melessanaki, K., Zacharakis, G., Non-invasive photoacoustic detection of hidden underdrawings in paintings using air-coupled transducers (2019) *Ultrasonics* (under review).

\*Equal contribution

## **PEER REVIEWED CONFERENCE PAPERS**

1. Selimis, A., Vounisiou, P., **Tserevelakis, G.J.**, Melessanaki, K., Pouli, P., Filippidis, G., Beltsios, C., Georgiou, S., Fotakis, C. In-depth assessment of modifications induced during the laser cleaning of modern paintings (2009) *Proceedings of SPIE – The International Society for Optical Engineering*, 7391, art. no. 73910U.
2. Aviles-Espinosa, R., **Tserevelakis, G.J.**, Santos, S.I.C.O., Filippidis, G., Krmpot, A.J., Vlachos, M., Tavernarakis, N., Brodschelm, A., Kaenders, W., Artigas, D., Loza-Alvarez, P. Cell division stage in *C. elegans* imaged using third harmonic generation microscopy (2010) *Biomedical Optics, OSA Technical Digest*, doi: 10.1364/BIOMED.2010.BTuD78.
3. Soliman, D. \*, **Tserevelakis, G.J.** \*, Omar, M., Ntziachristos, V. Hybrid label-free multiphoton and photoacoustic microscopy (MPOM) (2015) *Proc. SPIE 9539, Opto-Acoustic Methods and Applications in Biophotonics II*, 953908, doi:10.1117/12.2183619.
4. Soliman, D. \*, **Tserevelakis, G.J.** \*, Omar, M., Ntziachristos, V. Combined label-free optical and photoacoustic imaging of model organisms at mesoscopy and microscopy resolutions (2016) *Proc. SPIE 9708, Photons Plus Ultrasound: Imaging and Sensing 2016*, 97083B, doi:10.1117/12.2208861.

\*Equal contribution

## **ABSTRACTS**

1. Kyvelidou, C., **Tserevelakis, G.**, Filippidis, G., Tsagkaraki, M., Tsouko, A., Fotakis, C., Athanassakis I. L-carnitine alters lipid body content in pre-implantation embryos leading to infertility (2014) Journal of Reproductive Immunology, DOI: 10.1016/j.jri.2013.12.117

## **BOOK CHAPTERS**

1. Kyvelidou, C., **Tserevelakis, G.J.**, Vardaki, K., Filippidis, G., Ranella, A., Fotakis, C., Athanassakis, I. Qualification and Quantification of Pre-Implantation Embryo Health (2013) Advances in Medicine and Biology Volume 65, ISBN: 978-1-62618-298-1, Nova Science Publishers Inc.

## **PATENTS**

1. I. Athanassakis, G. Filippidis, **G.J. Tserevelakis**, C. Kyvelidou, A. Ranela, C. Fotakis Use of nonlinear imaging techniques to evaluate pre-implantation embryo health and promote pregnancy outcome Application Number 20110100030 (Greek patent).