Nefeli Lagopati

Short Curriculum Vitae

Nefeli Lagopati is Assistant Professor in Biology-Nanomedicine at the Department of Biology, at the School of Medicine of the National & Kapodistrian University of Athens (NKUA). She performed her PhD at the Faculty of Biology of the School of Science, NKUA (Section of Animal & Human Physiology) in cooperation with the Laboratory for the Research on Cell & Matrix Biochemistry / Pathobiology of the Institute of Biosciences and Applications and the Laboratory of Nanotechnology processes for solar energy conversion and environmental protection of the Institute of Nanoscience and Nanotechnology, of the National Center for Scientific Research "Demokritos" (N.C.S.R. “D”). She has graduated from the Faculty of Physics, of the School of Science, NKUA. She has received her first MSc in Medical Physics/ Radiation Physics from the School of Medicine, NKUA and the second MSc in Advanced Materials from the Department of Materials Science and Engineering at the School of Engineering of the University of Ioannina. She is also about to finish a MSc in Technoeconomic Systems (National Technical University of Athens, School of School of Electrical and Computer Engineering/Department of Industrial Management & Technology, university of Piraeus) in parallel with continuous training and seminars, reflecting her dedication in lifelong learning.

Among her research interests is the multi-disciplinary field of nanomedicine in cancer treatment. Specifically, Dr. Nefeli Lagopati focuses on the oxidative stress induced apoptotic effect and the anticancer activity of nanomaterials. She has worked as a Research Fellow in various research projects, and had the honor to receive full national scholarships as a PhD candidate, as well as Postdoc researcher (IKY, Heraclitus II), through her continuous and strategic collaborations with NTUA, NCSR “D”, and School of Medicine NKUA. In the past decade, she has focused on the development of drug delivery systems, biomaterials, hybrid materials, cellular senescence, oxidative stress molecular mechanisms, radiobiology, Monte Carlo simulation, and dosimetry in nuclear medicine, while recently she worked on projects related to SARS-CoV-2. Dr. Nefeli ‘s Lagopati work is reflected in a significant number of scientific publications. She also has numerous participations in national and international conferences, which highlights her persistence and devotion to her research activity. She is a reviewer in various scientific journals. She has served as a Substitute board member of the Hellenic National Public Health Organization and as a scientific collaborator of the General Secretariat for Research and Innovation, of the Ministry of Development and Investment of Greece.

Dr. Nefeli Lagopati teaches Biology and Genetics to undergraduate medical students, and she has supervised a significant number of junior scientists. She also teaches some aspects of Histology-Embryology to undergraduate medical and dental students while she participates at the organization and teaching of “Cancer Biology”, “Nanomedicine” and “Applications of Biology in Regenerative Medicine”. She is among the teaching staff of various postgraduate programs of NKUA.

ORCIDID: 0000-0001-9317-9510 / Web: https://biology.med.uoa.gr/prosopiko/meli_dep

Representative Publications

1. N. Lagopati, K. Evangelou, P. Falaras, E.-P. C. Tsilibary, P.V.S. Vasileiou, S. Havaki, A. Angelopoulou, E. A. Pavlatou, V.G. Gorgoulis, Nanomedicine: Photo-activated nanostructured titanium dioxide, as a promising anticancer agent, **Pharmacology and Therapeutics**, 2021, 222:107795.

2. N. Lagopati, E.-P. Tsilibary, P. Falaras, P. Papazafiri, E.A. Pavlatou., E. Kotsopoulou, P. Kitsiou, Effect of nanostructured TiO_2 crystal phase on photoinduced apoptosis of breast cancer epithelial cells», International **Journal of Nanomedicine**, 2014, 9 (1), 3219 – 3230.

3. N. Lagopati, P.V. Kitsiou, A.I. Kontos, P. Venieratos, E. Kotsopoulou, A.G. Kontos, D.D. Dionysiou, S. Pispas, E.C. Tsilibary, P. Falaras, Photo-induced treatment of breast epithelial cancer cells using nanostructured titanium dioxide solution, **Journal of Photochemistry and Photobiology A: Chemistry**, 2010, 214, 215-223.

4. N. Lagopati, A. Kotsinas, D. Veroutis, K. Evangelou, A. Papaspyropoulos, M. Arfanis, P. Falaras, P. V. Kitsiou, I. Pateras, A. Bergonzini, T. Frisan, S. Kyriazis, D. S. Tsoukleris, E.-P. C. Tsilibary, M. Gazouli, E. A. Pavlatou, V. G. Gorgoulis, Biological Effect of Silver-modified Nanostructured Titanium Dioxidein Cancer, **Cancer Genomics & Proteomics**, 2021, 18 (3 Suppl) 425-439.

5. H. Katifelis, M.-P. Nikou, I. Mukha, N. Vityuk, **Nefeli Lagopati**, C. Piperi, A. Ahmad Farooqi, N. Pippa, E. P. Efstathopoulos, M. Gazouli, Ag/Au bimetallic nanoparticles trigger different cell death pathways and affect Damage Associated Molecular Patterns release in human cell lines, **Cancers**, 14, 6, 1546, 2022.

6. I. Tremi, S. Havaki, S. Georgitsopoulou, **N. Lagopati**, V. Georgakilas, V. G. Gorgoulis, A. G. Georgakilas, A guide for using Transmission Electron Microscopy for studying the radiosensitizing effects of Gold Nanoparticles in vitro, **Nanomaterials**, 2021, 11(4), 859.

7. A. Barbouti, **N. Lagopati**, D. Veroutis, V. Goulas, K. Evangelou, P. Kanavaros, V. Gorgoulis, D. Galaris, Implication of dietary iron chelating bioactive compounds in molecular mechanisms of oxidative stress-induced cell ageing, **Antioxidants**. 2021, 10(3): 491.

8. D. Despotopoulou, **N. Lagopati**, S. Pispas, M. Gazouli, C. Demetzos, N. Pippa, The technology of transdermal delivery nanosystems: from bench to bedside from design and development to preclinical studies, **International Journal of Pharmaceutics**, 2021.

9. M. Lyra, **N. Lagopati**, P. Charalabatou, I. Vamvakas, Patient-specific dosimetry in radionuclide therapy, **Radiation Protection Dosimetry**, 2011, 147, 1–6.

10. K. Evangelou, D. Veroutis, K. Paschalaki, P. G. Foukas, **N. Lagopati**, M. Dimitriou, A. Papaspyropoulos, B. Konda, O. Hazapis, A. Polyzou, S. Havaki, A. Kotsinas, C. Kittas, A. G. Tzioufas, L. de Leval, D. Vassilakos, S. Tsiodras, B. R. Stripp, A. Papantonis, G. Blandino, I. Karakasiliotis, P. J. Barnes, V. G. Gorgoulis, Pulmonary infection by SARS-CoV-2 induces senescence accompanied by an inflammatory phenotype in severe COVID-19, **European Respiratory Journal**, 2022.

11. C. Zampetidis, P. Galanos, A. Angelopoulou, Y. Zhu, A. Polyzou, T. Karamitros, A. Kotsinas, **N. Lagopati**, I. Mourkioti, R. Mirzazadeh, A. Polyzos, S. Garnerone, A. Mizi, E. G. Gusmao, K. Sofiadis, Z. Gál, D. H. Larsen, D.-E. Pefani, M. Demaria, A. Tsirigos, N. Crosetto, A. Maya-Mendoza, A. Papaspyropoulos, K. Evangelou, J. Bartek, A. Papantonis, Vassilis G. Gorgoulis, A recurrent chromosomal inversion suffices for driving escape from oncogene-induced senescence via subTAD reorganization, **Molecular Cell**, 2021.

12. I. Karakasiliotis, **N. Lagopati***, K. Evangelou, V. G. Gorgoulis, Cellular senescence as a source of SARS-CoV-2quasispecies, **The FEBS Journal**, 2021 (*First Co- author).

13. D. Veroutis, A. Kouroumalis, **N. Lagopati**, A. Polyzou, C. Chamilos, S. Papadodima, K. Evangelou, V.G. Gorgoulis, D. Kletsas, Evaluation of senescent cells in intervertebral discs by lipofuscin staining, **Mechanisms of Ageing and Development**, 2021, 199, 111564.