

**Nefeli P. Lagopati, PostDoc Researcher****Personal Information**Birth date / Birth place: **May 10, 1983 / Athens, Greece****Education**

**2009-2013:** PhD in Biology (Nanomedicine), Faculty of Biology, School of Science, National and Kapodistrian University of Athens, (NKUA), Thesis: Photocatalytic-Anticancer Activity of Titanium Dioxide (TiO<sub>2</sub>): Related Mechanisms & Applications

**2007-2010:** MSc in Medical Physics - Radiation Physics, Faculty of Medicine, School of Health Sciences, (N.K.U.A.), Thesis: Estimation of individualized radiosensitivity index in patients, suffered from breast cancer, for personalized radiotherapy purposes

**2001-2006:** BSc in Physics, Faculty of Physics, School of Science, (N.K.U.A.), Thesis: Ionizing Radiation Study, employing MCNPX - Monte Carlo simulation software.

**2015-2018:** MSc in Advanced Materials, Department of Materials Science and Engineering, School of Engineering, University of Ioannina (UI), Thesis: Hydroxyapatite biomaterials, produced from cuttlefish bone via hydrothermal transformation, for application in tissue engineering and drug delivery systems.

**1990-2006:** BSc in Classical Guitar, Conservatory of Zografou, Athens

**1995-2001:** Pallini Music High School

**Research Activity**

**2017 - present:** PostDoctoral Researcher, General Chemistry Laboratory, School of Chemical Engineering, National Technical University of Athens (N.T.U.A.)

**2016 - present:** PostDoctoral Researcher, Molecular Carcinogenesis Group, Department of Histology-Embryology, Faculty of Medicine, School of Health Sciences, N.K.U.A. (Gorgoulis Lab)

**2019 March:** Visiting Researcher, Danish Cancer Society Research Center, Copenhagen, Denmark, Genome Integrity Group, Prof. Jiri Bartek, in the frame of the European Program COST- Action MP1407.

**2019 April:** Visiting Researcher, University of Liverpool, Institute of Translational Medicine Department of Molecular & Clinical Cancer Medicine, Liverpool, United Kingdom, Dr. L. Liloglou, in the frame of the European Program COST- Action MP1407.

**15/03/2017 – 31/12/2017:** Research fellow, Aristotle University of Thessaloniki (code: 93768), Pharmaceutical Company, "UCB BIOPHARMA SPRL", Processing, analysis and presentation of research results.

**2016 – present:** Research Fellow, Bioceramics and Advanced Materials Lab., Department of Materials Science and Engineering, School of Sciences and Technologies, UI

**2014 - 2015:** PostDoctoral Researcher, Laboratory of Biological Chemistry, UI, Operational Program "Education and Lifelong Learning" (NSRF), Research Funding Program: THALIS. "Study of molecular mechanisms of intracellular signal transduction through redox cysteine residue modifications: the role of iron ions".

**2009 - present:** Research fellow Radiation Physics Unit, A' Radiology Department, Areteion Hospital, School of Health Sciences, Faculty of Medicine, (N.K.U.A.), Research related to Radiodosimetry in Nuclear Medicine (MATLAB Analysis and Monte Carlo simulations)

**2006 - 2009:** Research Fellow, Research related to biological effect on nanostructured titanium dioxide, Laboratory for the Research on Cell & Matrix Biochemistry / Pathobiology - Institute of Biosciences and Applications and Laboratory of Nanotechnology processes for solar energy conversion and environmental protection - Institute of Nanoscience and Nanotechnology - Department of Physical Chemistry - National Center for Scientific Research (N.C.S.R.) "Demokritos".

**2007 (Nov - Dec):** Researcher, Regional Operational Programme (ROP), Attica 2007-2013 program "Development of novel bioactive nanomaterials for diagnosis and monitoring of pathologies by MRI", National Center for Scientific Research (N.C.S.R.) "Demokritos".

**Scholarships**

**2009 - 2012:** Full scholarship for PhD candidates, Heracleitus II, research funding program.

**2017 - 2019:** Full scholarship for Postdoct Research from the State Scholarships Foundation (IKY).

**Teaching Experience**

- 2016 - present:** Faculty of Medicine, School of Health Sciences, N.K.U.A., Undergraduate Course: "Cancer Biology"
- 2018 - present:** Participation in the teaching staff of the MSc in Nanomedicine, NKUA, with the lectures, entitled: "Nanotechnology and applications" & «Photodynamic Therapy and Photocatalysis»
- 2017 - present:** Participation in the teaching staff of MSc in "Materials Science and Technology", School of Chemical Engineering, N.T.U.A. with the lecture, entitled: "Cell Culture and cytotoxicity"
- 2017 - present:** Participation in the teaching staff of MSc in Biological applications in Medicine, NKUA, entitled: "Pharmacology-Toxicology, DNA, Forensic Genetic Applications in the Criminal Investigation"
- 2018 - present:** Lab Practice Supervisor in the context of the Lesson "Nanomaterials – Nanotechnology", School of Chemical Engineering, N.T.U.A. "Cytotoxicity of photo-activated nanomaterials"
- 2008 - 2009:** Lab Practice Supervisor in the context of the Lesson "Introduction to Nuclear and Particle Physics" and Lab Practice Supervisor in the context of the Lesson "Introduction to Computer Programming" and "Medical Physics", due to my statutory obligations as a MSc Student, Issue: Introduction to algorithms, NKUA
- 2015 - 2018:** Student Tutoring, "Medical Physics",
- 2014 - 2017:** Private Institute of Vocational Training "Delta" (Ioannina, Greece), teaching the courses: Medical Physics, Biotechnology, Biochemistry, Molecular Biology and Genetics.
- 2015 - 2017:** Private High School of Ioannina "Arsakeion" (Ioannina, Greece), teaching the courses: Biology, Chemistry, Physics, Experimental Physics, Geography-Geology.
- 2008-2013:** Physics, Maths, Chemistry and Biology tutoring to high school students
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**Work Experience**

- 2015 - 2016:** Substitute board member of the Hellenic Center for Disease Control & Prevention (HCDCP).
- 2008 - 2009:** Specialty in the field of Radiodiagnosis, Nuclear Medicine, non-ionizing radiation systems, Radiotherapy (University General Hospital "Attikon", Areteion University Hospital (Athens))
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**Languages:** Greek (native), English (Fluent C2)

**Computer Skills:** ECDL, Programming skills, Monte Carlo Simulation (MCNPX, FLUKA, VMC), MATLAB etc.

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**Other Skills**

**1990-2006:** Music Theory, Harmony, History of Music, Morphology, Chamber music

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**Citations:** h index=7, g index=13 (Google Scholar 01/07/2019)

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**Prizes and Awards**

- Best Poster Award, "The E3, E4 Ubiquitin ligase UBE4B in human cancer", N. Antoniou, N. Lagopati, T. Loutas, N. Margetis, T. Mariolis-Sapsakos, G.V. Gorgoulis, Y. Shiloh, A. Kotsinas, 10<sup>th</sup> National Conference of the Hellenic Society of Basic and Clinical Pharmacology, Ioannina, May 25-27, 2018.
  - 3<sup>rd</sup> Award for the oral presentation entitled: "Patient Specific Dosimetry in Targeted Molecular Radionuclide therapy – <sup>111</sup>In octreotide therapy", M. Andreou, N. Lagopati, P. Charalabatou, I. Vamvakas, M. Lyra, 1st International Meeting of Medical Olympicus Association, September 23 - 25, 2011, Thessaloniki, Greece.
  - Praise for the oral presentation entitled: "Bone Pain Palliation and Quality of Life Improvement for patients with Bone Metastasis: Individualized Dosimetry evaluation of <sup>186</sup>Re-HEDP and <sup>153</sup>Sm-EDTMP therapy", N. Lagopati, M. Andreou, M. Sotiropoulos, A. Georgantzoglou, M. Lyra, 1st International Meeting of Medical Olympicus Association, September 23 - 25, 2011, Thessaloniki, Greece
  - First Prize, Athens Science Festival, April 24-29, 2018, Member of the group of the School of Chemical Engineering, NTUA.
  - 2<sup>nd</sup> Prize, National Music Contest, 2000, Zappeion Megaron, Athens, Greece, Category, Chamber music
  - 2<sup>nd</sup> Prize in Drawing, Mattel Corporation, 1995.
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**Selected Publications**

- V.D Papakonstantinou, et al., «A Review on Platelet Activating Factor Inhibitors: Could a New Class of Potent Metal-Based Anti-Inflammatory Drugs Induce Anticancer Properties? », *Bioinorganic Chem & App*, 2017, 1-19.
- N. Lagopati, et al., «Effect of nanostructured TiO<sub>2</sub> crystal phase on photoinduced apoptosis of breast cancer epithelial cells», *IJ Nanomedicine*, 2014, 9 (1), 3219 - 3230.
- N. Lagopati, et al., «Photo-induced treatment of breast epithelial cancer cells using nanostructured titanium dioxide solution», *J Photochem Photobiol A: Chem*, 2010, 214 (2-3), 215-223.
- M. Argyrou, et al., «Patient specific dosimetric calculations obtained by planar images and Monte Carlo simulation in 111 In octreotide therapy», *Case Rep and Images in Surg*, 2018, 1(3) 1-5.
- S. L. Papadopoulou, et al., Therapeutic approaches in Locked-in syndrome, *Folia Medica*, 2018, 95-102.
- I. Vamvakas, et al., «Patient specific computer automated dosimetry calculations during therapy with 111 In Octreotide», *European, J Radiography*, 2009, 1 (4), 180-183.
- M. Andreou, et al., «Re-186 and Sm-153 dosimetry based on scintigraphic imaging data in skeletal metastasis palliative treatment and Monte Carlo simulation», *J Physics*, 2011, Ser 317, 1-4.
- M. Lyra, et al., «Patient - specific dosimetry in radionuclide therapy», *Rad Prot Dos*, 2011, 147, 1–6.

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**Selected Book Chapters**

- M.E. Lyra, et al., «Radionuclides used in Nuclear Medicine Therapy – From Production to Dosimetry» Bentham Science Publishers, *Current Medical Imaging Reviews*, 2013, 9, 51-75.
- M.E. Lyra, et al., «The impact of scattering and peak spectrum of I-123 in scintigraphy by I-123 MIBG», *Advanced Topics in Scattering Theory and Biomedical Engineering*, World Scientific, 79-89, 2009.
- N. Lagopati, S. Agathopoulos, Hydroxyapatite scaffolds produced from cuttlefish bone via hydrothermal transformation for application in tissue engineering and drug delivery systems, *Springer Ser. Biomaterials Sci., Engineer, Marine-Derived Biomaterials for Tissue Engineering Applications*, Vol. 14. Springer Publishing, 2018

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**Selected Publications in Conference Proceedings**

- M. Lyra, et al., Volume Quantification of I-123 DaTSCAN Imaging by MATLAB for the Differentiation and Grading of Parkinsonism and Essential Tremor, *International Conference on Science and Social Research (Kuala Lumpur, Malaysia, December 5-7, 2010, 1, 163-168.*
- M. Lyra, et al., «Quantification of myocardial perfusion in 3D SPECT images - stress/rest volume differences», 31 – 35, 2010.
- N. Lagopati, et al. «Photoinduced Cancer Treatment, Using Nanostructured Titanium Dioxide Solution», *Proceedings, of International Conference on Nanomedicine, «Nanotechnology for health», September 9-11. 2007, (Chalkidiki), Session DD-3, 50-5.*
- N. Lagopati, et al. «Radiopharmaceutical (Sm-153– EDTMP) palliative treatment and Monte Carlo simulation», *Proceedings of the 5th International Conference on Imaging Technologies in Biomedical Sciences (ITBS), Milos, 2009, pp 13-16.*
- M. Sotiropoulos, et al. «Radiation Effects Quantification in Breast Radiotherapy by Mammography Image Processing» *IFMBE Proceedings, Dössel Olaf – Schlegel Wolfgang C., Vol 25/5, 362-364, Springer, 2009.*
- N. Lagopati, et al. «Individualized Dosimetry Methods and Monte Carlo Simulation in Sm 153-EDTMP Palliative Treatment, *European Journal of Nuclear Medicine and Molecular Imaging*, 2009, 36, S428, Springer.
- N.P. Lagopati, et al. Image improvement in I123-MIBG adrenals scintigraphy by scattering corrections, *European Journal of Nuclear Medicine and Molecular Imaging*, 2011, 38, S262, Springer.
- M.A. Sotiropoulos, et al. 3D SPECT Myocardium Volume differences at Stress/Rest-MatLab Algorithm, *European Journal of Nuclear Medicine and Molecular Imaging*, 2011, 38, S263, Springer

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**Recent Participations in International – National Conferences**

- International Conference on Nanomedicine and Nanotechnology, August 20-21, 2018, Rome, Italy “Effect of silver doped nanostructured titanium dioxide (TiO<sub>2</sub>) on breast cancer epithelial cells”, N. Lagopati, E. A. Pavlatou, A. Kotsinas, V. Gorgoulis, Oral Presentation – Invited Speaker \* Moderator
- International Conference Opentox 2018, Bridging the gap between experimental and computational work in safety and risk assessment, October 9-11, 2018 Athens, Greece “Effect of nanostructured titanium dioxide on photoinduced cancer treatment”, N. Lagopati, E. Pavlatou, A. Kotsinas, V. Gorgoulis, Oral Presentation – Invited Speaker
- 1<sup>st</sup> annual meeting of Radiologist Assistants, October 7th, 2017, Thessaloniki, Greece “Effect of nanostructured TiO<sub>2</sub> chemical doping with silver, on photoinduced apoptosis of breast cancer epithelial cells”, N. Lagopati, E. Kassalia, E.C. Tsilibary, E. Pavlatou, Oral Presentation
- 11<sup>th</sup> Conference of Hellenic Society of Biomaterials, November 23<sup>th</sup>-24<sup>th</sup>, 2018, Athens, Greece, “Biomaterials produced from marine organisms for tissue-engineering applications and drug-delivery systems. N. Lagopati, S. Agathopoulos, Oral Presentation
- 8<sup>th</sup> Conference of Hellenic Society of Biomechanics, September 1<sup>st</sup>-2<sup>nd</sup>, Thessaloniki, Greece “Biomaterials for cancer treatment” N. Lagopati, **Oral Presentation – Invited Speaker – Round Table**