

Panagiota-Efstathia Nikolaou, PhD, MSc, B.Pharm
Scientist of Tomorrow by the European Society of
Cardiology

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Current position

September 2026: **Assistant Professor of Pharmacology**, University of Nicosia, School of Health Sciences, Athens, Greece

May 2026 to present: **Basic and translational scientist**, Cardiovascular Research Laboratory, Biomedical Research Foundation, Academy of Athens, Athens, Greece.

October 2018 to present: **Scientific collaborator/Researcher** Oncology – Hematology Unit, Department of Therapeutics, Medical School, NKUA, Athens, Greece.

Academic qualifications

2018 to 2022: **PhD, Arista, Honors**. Laboratory of Pharmacology, Department of Pharmacy, NKUA, Athens, Greece.

PhD thesis title: “*Cardiac light chain amyloidosis: Investigation of the underlying mechanism of cardiotoxicity to reveal novel targets for cardioprotection*”, Supervisor: Prof. Andreadou Ioanna

2016 to 2018: **Master of Science (MSc)**. Postgraduate program "Design and Development of New Pharmaceutical Agents" with specialization in Pharmacology, **Arista, Honors**. Department of Pharmacy, NKUA, Athens, Greece. Graduation grade: 9.81/10.

MSc thesis title: “*Investigation of the role of glycogen synthase kinase 3 β (GSK3 β) in cardioprotection through pharmacological inhibition*”, Supervisor: Prof. Andreadou Ioanna

2010 to 2016: **BSc in Pharmacy**, Department of Pharmacy, NKUA, Athens, Greece. Graduation grade: 8.81/10. (Licensed Pharmacist since 2017)

Thesis title: *“Investigation of the role of glycogen synthase kinase 3 β (GSK3 β) in the opening of the mitochondrial permeability transition pore (mPTP) using specific indirubin-derived inhibitors”*, Supervisor: Prof. Andreadou Ioanna

Research experience

November 2022-September 2026: Post-doctoral researcher

Laboratory of Pharmacology, Department of Pharmacy, NKUA, Athens, Greece.

September to October 2025: Visiting Researcher – Short-Term Research Mobility Abroad

Research Institute Sant Pau, Hospital de la Santa Creu, Barcelona, Spain.

Investigation of metabolic bone marrow alterations during aging and hypertriglyceridemia in rats via the application of single-cell transcriptomic analysis.

May 2023 to July 2023: Visiting Researcher – Short-Term Research Mobility Abroad

Radboud Institute for Molecular Life Sciences, Nijmegen, the Netherlands.

Application of cardiac magnetic resonance for the evaluation of vascular damage, microvascular obstruction and non-reflow phenomena in murine models of myocardial infarction.

February 2022 to June 2025: Associate Researcher

Institute of Nuclear and Radiological Sciences, Technology, Energy & Safety “Demokritos”, Athens, Greece.

Improving Detection of AL Amyloidosis (IDEA) QuickFire Challenge, funded by Johnson & Johnson. Establishment of light chain derived amyloidoma bearing mice and evaluation of radio-diagnostics.

September 2020 to November 2022: Research Trainee

Laboratory of Biochemistry, Department of Biology, NKUA, Athens, Greece.

Supervision: Prof. Constantinos E. Vorgias

Biotechnological production, purification, and characterization of patient plasma cell derived light chains.

October to December 2019: Visiting Researcher – Short-Term Research Mobility Abroad

The Hatter Cardiovascular Institute, University College London, London, United Kingdom. Supervision: Prof. Sean M. Davidson

Training in permanent ligation animal models. Evaluation of mitochondrial F1Fo ATPase as a molecular target for ischemia/reperfusion injury.

October to December 2019: Visiting Researcher – Short-Term Research Mobility Abroad

National Amyloidosis Center (NAC), University College London, London, United Kingdom. Supervision: Prof. Ashutosh Wechalekar, Janet Gilbertson and Prof. Vittorio Bellotti

Implementation of Laser Capture Microdissection, decellularization and top-down proteomics for the diagnosis and systems biology investigation of light chain and transthyretin amyloidosis in fat aspirates.

October 2018 to June 2019: Research Trainee

Laboratory of Systems Biology, Biomedical Research Foundation of the Academy of Athens, Athens, Greece. Supervision: Dr. Antonia Vlahou

Proteomics and bioinformatic analysis in animal and patient samples.

September to October 2018: Research Trainee

Physiologisches Institut Fachbereich Medizin der Justus-Liebig-Universität, Giessen, Germany. Supervision: Prof. Rainer Schulz and Prof. Kerstin Boengler

Mitochondria isolation from murine hearts and mitochondria functional assays.

Teaching and educational activities

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| 2025-2026 | Teaching in the course “Basic Principles of Drug Mechanisms of Action”. Postgraduate Program “Clinical Trials: Design and Conduct”, Medical School, National and Kapodistrian University of Athens (NKUA). |
| 2024-2026 | Appointed lecturer of the course “Toxicology”, Scientific field “Pharmacology”. Teaching responsibilities as an appointed lecturer. Harokopio University, School of Health Sciences & Education, Department of Nutrition and Dietetics (2 semesters) |
| | Appointed lecturer of the course “Pharmacology”, Scientific field “Pharmacology”. Teaching responsibilities as an appointed lecturer. Harokopio University, School of Health Sciences & Education, Department of Nutrition and Dietetics (2 semesters) |
| 2023-2025 | Co-teaching of the course “Laboratory Methods in Pharmacology”. Postgraduate program "Design and Development of New Pharmaceutical Agents" with specialization in Pharmacology. Department of Pharmacy, NKUA. |
| September 2017 to date | Training and scientific advisory support of 12 undergraduate students, 7 master students and 5 PhD candidates on their dissertation projects |

Publications in peer-reviewed Journals

PubMed link to publications: <https://pubmed.ncbi.nlm.nih.gov/?term=nikolaou+PE>

1. Andreadou I, Efentakis P, Balafas E, Togliatto G, Davos CH, Varela A, Dimitriou C, **Nikolaou PE**, Maratou E, Lambadiari V, Ikonomidis I, Kostomitsopoulos N, Brizzi MF, Dimitriadis G, Iliodromitis EK. Empagliflozin limits myocardial

- infarction in vivo and cell death in vitro: role of STAT3, mitochondria, and redox aspects. *Front Physiol.* **2017 Dec 19;8:1077.**
2. Efentakis P*, Kremastiotis G*, Varela A, **Nikolaou PE**, Papanagnou ED, Davos CH, Tsoumani M, Agrogiannis G, Konstantinidou A, Kastritis E, Kanaki Z, Iliodromitis EK, Klinakis A, Dimopoulos M, Trougakos IP, Andreadou I, Terpos E **Equal authorship contribution*. Molecular mechanisms of Carfilzomib-induced cardiotoxicity in mice and the emerging cardioprotective role of Metformin. *Blood.* **2019 Feb 14;133(7):710-723.**
 3. **Nikolaou PE**, Boengler K, Efentakis P, Vougianniopoulou K, Zoga A, Gaboriaud-Kolar N, Myrianthopoulos V, Alexakos P, Kostomitsopoulos N, Rerras I, Tsantili-Kakoulidou A, Skaltsounis AL, Papapetropoulos A, Iliodromitis EK, Schulz R, Andreadou I. Investigating and re-evaluating the role of glycogen synthase kinase 3 beta kinase as a molecular target for cardioprotection by using novel pharmacological inhibitors. *Cardiovasc Res.* **2019 Jun 1;115(7):1228-1243.**
 4. Stamatelopoulos K*, Georgiopoulos G*, Athanasouli F, **Nikolaou PE**, Lyka M, Roussou M, Gavriatopoulou M, Laina A, Trakada G, Charakida M, Delialis D, Petropoulos I, Pamboukas C, Manios E, Karakitsou M, Papamichael C, Gatsiou A, Lambrinoudaki I, Terpos E, Stellos K, Andreadou I**, Dimopoulos MA**, Kastritis E.** **Equal authorship contribution*, ***Equal senior authorship contribution*. Reactive Vasodilation Predicts Mortality in Primary Systemic Light-Chain Amyloidosis. *Circ Res.* **2019 Sep 27;125(8):744-758.**
 5. Angelis A, Mavros P, **Nikolaou PE**, Mitakou S, Halabalaki M, Skaltsounis L. Phytochemical Analysis of Olive Flowers' Hydroalcoholic Extract and in Vitro Evaluation of Tyrosinase, Elastase and Collagenase Inhibition Activity. *Fitoterapia* **2020 Jun; 143:104602.**
 6. Efentakis P, Doerschmann H, Witzler C, Siemer S, **Nikolaou PE**, Kastritis E, Stauber R, Dimopoulos MA, Wenzel P*, Andreadou I*, Terpos E*.**Equal authorship contribution*. Investigating the Vascular Toxicity Outcomes of the Irreversible Proteasome Inhibitor Carfilzomib. *Int J Mol Sci.* **2020 Jul 22;21(15):5185.**
 7. Andreadou I, Schulz R, Badimon L, Adameová A, Kleinbogard P, Lecour S, **Nikolaou PE**, Falcão-Pires I, Vilahur G, Woudberg N, Heusch G, Ferdinandy P.

- Hyperlipidaemia and cardioprotection: animal models for translational studies. *Br J Pharmacol.* 2020 Dec;177(23):5287-5311.
8. Michailidis D, Angelis A, **Nikolaou PE**, Mitakou S, Skaltsounis AL. Exploitation of *Vitis vinifera*, *Foeniculum vulgare*, *Cannabis sativa* and *Punica granatum* by-product seeds as dermo-cosmetic agents. *Molecules.* 2021 Jan 31;26(3):731.
 9. **Nikolaou PE**, Efentakis P, Abu Qourah F, Femmino S, Makridakis M, Kanaki Z, Varela A, Tsoumani M, Davos CH, Dimitriou CA, Tasouli A, Dimitriadis G, Kostomitsopoulos N, Zuurbier CJ, Vlahou A, Klinakis A, Brizzi MF, Iliodromitis EK, Andreadou I. Chronic Empaglifozin treatment reduces myocardial infarct size in non-diabetic mice through STAT-3 mediated protection on microvascular endothelial cells and reduction of oxidative stress. *Antioxid Redox Signal.* 2021 Mar 1;34(7):551-571.
 10. Tsoumani M, Georgoulis A*, **Nikolaou PE***, Kostopoulos IV, Dermintzoglou T, Papatheodorou I, Zoga A, Efentakis P, Konstantinou M, Gikas E, Kostomitsopoulos N, Papapetropoulos A, Lazou A, Skaltsounis AL, Hausenloy DJ, Tsitsilonis O, Tseti I, Di Lisa F, Iliodromitis EK, Andreadou I. Acute administration of the olive constituent, oleuropein, combined with ischemic postconditioning increases myocardial protection by modulating oxidative defense. *Free Radic Biol Med.* 2021 Apr;166:18-32.
 11. Efentakis P, Psarakou G, Varela A, Papanagnou ED, Chatzistefanou M, **Nikolaou PE**, Davos CH, Gavriatopoulou M, Trougakov IP, Dimopoulos MA, Andreadou I, Terpos E. Elucidating carfilzomib's induced cardiotoxicity in an *in vivo* model of aging: prophylactic potential of metformin. *Int J Mol Sci.* 2021 Oct 11;22(20):10956.
 12. Tsoumani M*, **Nikolaou PE***, Argyropoulou A, Tseti I, Mitakou S, Andreadou I. *Equal authorship contribution. Novel Evidence-Based Combination of Plant Extracts with Multitarget Mechanisms of Action for the Elimination of Hot Flashes during Menopause. *Molecules.* 2022 Feb 11;27(4):1221.
 13. **Nikolaou PE**, Mylonas N, Makridakis M, Makrecka-Kuka M, Iliou A, Zerikiotis S, Efentakis P, Kampoukos S, Kostomitsopoulos N, Vilskersts R, Ikonomidis I, Lambadiari V, Zuurbier CJ, Latosinska A, Vlahou A, Dimitriadis G, Iliodromitis EK, Andreadou. Cardioprotection by selective SGLT-2 inhibitors in a non-diabetic

mouse model of myocardial ischemia/reperfusion injury: a class or a drug effect?

Basic Res Cardiol. 2022 May 17;117(1):27.

14. Efentakis P, Lamprou S, Makridakis M, Barla I, **Nikolaou PE**, Christodoulou A, Dimitriou C, Kostomitsopoulos N, Ntanas-Stathopoulos I, Theochari I, Gavriatopoulou M, Gakiopoulou H, Tasouli A, Vlahou A, Gikas E, Thomaidis N, Dimopoulos MA, Terpos E, Andreadou I. Mineralocorticoid Receptor Pathway Is a Key Mediator of Carfilzomib-induced Nephrotoxicity: Preventive Role of Eplerenone. **Hemasphere**, 2022 Oct 18;6(11):e791
15. **Nikolaou PE**, Lambrinidis G, Georgiou M, Karagiannis D, Efentakis P, Bessis-Lazarou P, Founta K, Kampoukos S, Konstantin V, Palmeira CM, Davidson SM, Lougiakis N, Marakos P, Pouli N, Mikros E, Andreadou I. Hydrolytic Activity of Mitochondrial F₁F₀-ATP Synthase as a Target for Myocardial Ischemia-Reperfusion Injury: Discovery and In Vitro and In Vivo Evaluation of Novel Inhibitors. **J Med Chem.** 2023 Nov 23;66(22):15115-15140.
16. Mylonas N, **Nikolaou PE**, Karakasis P, Stachteas P, Fragakis N, Andreadou I. Endothelial Protection by Sodium-Glucose Cotransporter 2 Inhibitors: A Literature Review of In Vitro and In Vivo Studies. **Int J Mol Sci.** 2024 Jul 2;25(13):7274.
17. Fotiou D, Solia E, Theodorakakou F, **Nikolaou PE**, Gakiopoulou C, Psimenou E, Papanikolaou A, Dimopoulos MA, Kastitis E. TEMPI syndrome: difficult to diagnose, "easy" to treat? **Ann Hematol.** 2024 Sep;103(9):3787-3793.
18. Christodoulou A, **Nikolaou PE**, Symeonidi L, Katogiannis K, Pechlivanic L, Nikou T, Varela E, Chania C, Zerikiotis S, Efentakis P, Vlachodimitropoulos D, Katsoulas D, Agapaki A, Dimitriou C, Tsoumani M, Kostomitsopoulos N, Davos CH, Skaltsounis AL, Tselepis A, Halabalaki M, Tseti I., Iliodromitis EK, Ikonomidis I, Andreadou I. Cardioprotective potential of Oleuropein, Hydroxytyrosol, Oleocanthal and their combination: Unravelling complementary effects on ischemia/reperfusion injury and metabolic syndrome. **Redox Biol.** 2024 Oct;76:103311.
19. Bellofatto I, **Nikolaou PE**, Andreadou I, Canepa M, Carbone F, Ghigo A, Heusch G, Kleinbongard P, Maack C, Podesser B, Stamatelopoulos K, Stellos K, Vilahur G, Montecucco F, Liberale L. Mechanisms of damage and therapies for cardiac

- amyloidosis: a role for inflammation? *Clin Res Cardiol.* 2026 May;115(5):685-699.
20. Theodorakakou F, Fotiou D, Spiliopoulou V, Migkou M, Malandrakis P, Ntanasis-Stathopoulos I, Roussou M, Kanellias N, Eleutherakis-Papaiakovou E, Solia E, Papanikolaou A, Gakiopoulou C, Courraud J, **Nikolaou PE**, Giannouli S, Gavriatopoulou M, Terpos E, Dimopoulos MA, Kastritis E. Re-evaluation of Mayo 2004 and revised Mayo 2012 staging in patients with AL amyloidosis in the era of new therapies. *Amyloid.* 2025 Jun;32(2):193-195
 21. **Nikolaou PE**, Konijnenberg L, Kostopoulos IV, Miliotis M, Mylonas N, Georgoulis A, Pavlidis G, Kuster C, van Reijmersdal V, Luiken T, Agapaki A, Rovers R, Orologas N, Grigoriadis D, Pallot G, Boucher P, Kostomitsopoulos N, Pieper MP, Germain S, Loukas Y, Dotsikas Y, Ikonomidis, Hatzigeorgiou AG, Tsitsilonis O., Zuurbier CJ, Nijveldt R. van Royen N., Andreadou, I. *Empagliflozin in acute myocardial infarction reduces no-reflow and preserves cardiac function by preventing endothelial damage.* *JACC Basic Transl Sci.* 2024 Aug 30;10(1):43-61.
 22. Xiao Y, Hu X, Rudolphi CF, Nollet EE, Nederlof R, Wang Q, Bakker D, Nikolaou PE, Knol JC, Goeij-de Haas RR, Henneman AA, Pham TV, Jimenez CR, Grootemaat AE, van der Wel NN, Girardin SE, Kaludercic N, van der Velden J, Onódi Z, Leszek P, Varga ZV, Ferdinandy P, Preckel B, Weber NC, Hollmann M, Di Lisa F, Zuurbier CJ. The innate immune receptor NLRX1 is a novel required modulator for mPTP opening: implications for cardioprotection. *Basic Res Cardiol.* 2025 Aug;120(4):707-725.
 23. Pavlidis G, Kountouri A, Katogiannis K, Thymis J, **Nikolaou PE**, Chania C, Karalis J, Kostelli G, Michalopoulou E, Katsanaki E, Parissis J, Vink H, Long R, Tsiodras S, Lambadiari V, Ikonomidis I. Effects of 4-month treatment with glycocalyx dietary supplement on endothelial glycocalyx and vascular function after COVID-19 infection. *Eur J Clin Invest.* 2025 Jul;55(7):e70058
 24. Andreadou I, Ghigo A, **Nikolaou PE**, Swirski F, Thackeray JT, Heusch, G, Vilahur G. Immunometabolism in heart failure. *Nat Rev Cardiol.* 2025 Oct;22(10):751-772
 25. Mylonas N, **Nikolaou PE**, Siokatas G, Kostopoulos IV, Tsitsilonis O, Drosatos K, Andreadou I. Empagliflozin restores cardiac metabolism and suppresses immune activation in acute myocardial infarction. *Atherosclerosis.* 2025 Jun 12:407:120404.

26. Castiello C, Efentakis P, Nikolaou PE+, Symeonidi L, Chania C, Barla I, Akrani I., Kostomitsopoulos N, Gikas E, Thomaidis NS, Mikros E, Kleinbongard P., Fioravanti R., Zwergel C, Valente S, Mai A+, Andreadou I. Cardioprotection Through Pharmacological Activation of Sirtuin 5 in a Murine Model of Acute Myocardial Infarction. *Drug Des Devel Ther.* 2025 Jun 27;19:5489-5505.
27. Thymis J, Katogiannis K, Pavlidis G, Vlastos D, Tsilivarakis D, Kostelli G, Parissis J, **Nikolaou PE**, Andreadou I, Lambadiari V, Ikonmidis I. Association of Endothelial Glycocalyx Integrity with Left Ventricular Performance and Remodeling after Acute Myocardial Infarction: A 12-month Follow-up Study. *Thromb Haemost.* 2026 Apr;126(4):383-393.
28. Karousi P, Voumvouraki M, **Nikolaou PE**, Kollias I, Paradeisi F, Sampana E, Gkalea V, Morianos I, Zoidakis J, Kastritis E, Thomaidis N, Médard G, Courraud J. Easy Proteomics Sample Preparation: Technical Repeatability and Workflow Optimization Across 8 Biological Matrices in a New Core Facility Setting. *Proteomics.* 2025 Oct;25(20):15-24
29. Choustoulaki A., Ben-Aicha S., Fotiou D., Briasoulis A., Tsitsilonis O., Kastritis E., **Nikolaou PE**. B cells at the crossroads of cardiovascular and hematologic disease: Paving the way for novel immunomodulatory therapies. *Cell Physiol Biochem.* 2025 Oct 24;59(S3):22-51
30. Girón G.O., Otero S., **Nikolaou P.E**, Alcover S., Ramos-Regalado L., Zaragoza C., Liberale L., Borrell-Pages M., Padró T., Suades R, Vilahur G. Atherogenic dyslipidaemia and residual cardiovascular risk: understanding the link to heart disease. *Eur J Clin Invest.* 2026 Jan;56(1):e70167
31. Ikonmidis I, Papageorgiou A, Pavlidis G, Georgiopoulos G, Katogiannis K, Maratou E, Thymis J, Pliouta L, Kountouri A, Korakas E., Kostelli G, Parissis J, **Nikolaou PE**, Andreadou I, Lambadiari V. GLP-1 Receptor Agonists, SGLT2 Inhibitors and Their Combination : Effects on Carotid Atherosclerosis, oxidative stress and Amyloid-β1-40 in Type 2 Diabetes. *Am J Physiol Heart Circ Physiol.* 2026 Feb 1;330(2):H610-H619
32. Gkalea V, **Nikolaou PE**, Pappas T, Papadimou A, Courraud J, Tsoumani M, Maryiola MS, Voumvouraki M, Malandrakis P, Gakiopoulou C, Sfrikakis PP, Matsouka C, Andreadou I, Fotiou D, Kastritis E, Dimopoulos MA. On a quest for

- fingerprints of crystalglobulinemia on platelets and endothelium. *Blood Vessel Thromb Hemost*. 2025 Dec 22;3(2):100134
33. Ikonomidis I, Michalopoulou E, Pavlidis G, **Nikolaou PE**, Katogiannis K, Prentza V, Thymis J, Vlachomitros D, Katsanaki E, Kostelli G, Korakas E, Pliouta L, Kountouri A, Kypraios D, Dimitroulopoulos D, Oikonomou E, Siasos G, Papanikolaou IS, Lambadiari V. Effects of dapagliflozin and dulaglutide on blood pressure and coronary flow in liver steatosis patients with type 2 diabetes. *J Hypertens*. 2026 Jul 1;44(7):1173-1184
 34. Symeonidi L, **Nikolaou PE**, Stathopoulos P, Christodoulou A, Svouraki A, Efentakis P, Chania C, Choustoulaki A, Xenaki M, Agapaki A, Tsoumani M, Kostomitsopoulos N, Tseti I, Vilahurg G, Skaltsounis AL, Andreadou I. Preclinical evaluation of berry-extracts as a nutritional intervention to alleviate myocardial ischemia reperfusion injury and atherosclerosis development. *Phytother Res*. 2026 May 29. doi: 10.1002/ptr.70391. Online ahead of print
 35. Piperidou A, **Nikolaou PE**, Fotiou D. Risk Assessment for Venous Thrombosis in Lymphoma and Emerging Biomarkers. *Int J Mol Sci*. 2026 Jun 17;27(12):5461.
 36. Gianniou DD, Delialis D, Georgiopoulos G, Bampatsias D, Gkogkou E, Theodorakakou F, **Nikolaou PE**, Choustoulaki A, Briasoulis A, Petropoulos I, Papanagnou ED, Dimoula A, Courraud J, Patras R, Soranidis A, Dimopoulos MA, Trougakos IP, Kastitis E, Stamatelopoulos K. Proteostasis is disrupted in human endothelial cells by serum from ATTR patients and is rescued by tafamidis treatment. *Amyloid*. 2026 Jun 26:1-15. doi: 10.1080/13506129.2026.2689643. Online ahead of print.
 37. Katsanaki E, Georgiopoulos G, Thymis J, Pavlidis G, Katogiannis K, **Nikolaou PE**, Vlastos D, Parissis J, Lambadiari V, Ikonomidis I. Effects of Nutritional Supplements on Vascular Function: A Narrative Review. *Journal of Clinical Medicine*. 2026; 15(14):5693. <https://doi.org/10.3390/jcm1514569>
 38. Wang Q, Hu X, Xiao Y, Nederlof R, **Nikolaou PE**, Chania C, Bakker D, Singh AK, Hollmann MW, Weber NC, Schomakers B, van Weeghel M, Zuurbier CJ. Metabolic dependency of malonate protection against cardiac ischemia-reperfusion injury. *Basic Res Cardiol*. 2026 Oct;121(5):863-882
 39. Tsakalidis E, Giannouli M, Akrani I, Panara A, Katalagarianou E, Degaita K, Giahou M, Kyriakou K, Routsis M, Nikolaou PE, Tsitsou E, Tsoka A, Vorgias CC,

Mikros E, Gikas E, Efthimiadou EK, Myrianthopoulos V. Sodium Channel Blockers Demonstrate Binding Affinity for the Tandem Tudor Domain of the Epigenetic Hub UHRF1. *ChemMedChem*. 2026 Sep 14;21(17):e70473.

40. Ntanasis-Stathopoulos I, **Nikolaou PE**, Filippatos C, Miliotis M, Kostopoulos IV, Bakouros P, Makridakis M, Liacos CI, Nikolopoulos K, Laidou S, Chatzidimitriou A, Frantzi M, Kastritis E, Fotiou D, Gavriatopoulou M, Vlahou A, Hatzigeorgiou AG, Tsitsilonis O, Dimopoulos MA, Terpos E. Independent prognostic value of semaphorin-4D, interleukin-1 β and complement activation in newly diagnosed multiple myeloma patients. *Haematologica*. 2026 Sep 3. doi: 10.3324/haematol.2026.301208. Online ahead of print.

Conference proceedings: Forty – three (43) already published.

[Metrics \(18/6/2026\)](#)

Scopus h-index: **16**, 926 citations

Google scholar h-index: **17**, 1178 citations, i10-index: **22**

[Conference presentations](#)

Invited Talks at National and International Conferences

1. **Symposium:** *Amyloidosis: Diagnostic and Therapeutic Challenges*, Athens, Greece, 10/03/2018.
Presentation: “The Physiology of Amyloid and the Induction of Myocardial Tissue Damage”
2. **Scientific Meeting:** *Rare Plasma Cell Dyscrasias – Recent Advances*, Athens, Greece, 08–09/02/2019.
Presentation: “Amyloid Typing”
3. **Scientific Meeting:** *Rare Plasma Cell Dyscrasias – Recent Advances*, Athens, Greece, 07–08/02/2020.
Presentation: “Amyloid Typing Beyond Immunohistochemistry”
4. **Scientific Meeting:** *Rare Plasma Cell Dyscrasias – Recent Advances*, Athens, Greece, 12–13/02/2021.

Presentation: “Amyloid Typing by Mass Spectrometry”

5. **Winter Workshop– DNA Repair 2020**, DAAD, University of Duisburg-Essen, Medical School, Essen, Germany, 08–13/12/2021.

Presentation: “Biotechnological Production and Characterization of Amyloidogenic Light-Chains”

6. **Conference: Rare Plasma Cell Dyscrasias – Recent Advances**, Athens, Greece, 11–12/02/2022.

Presentation: “Amyloid Typing by Mass Spectrometry: Data from Greece”

7. **1st National Congress of the Hellenic Society for the Study of Cancer Biology and Therapy (IEMVITHEC): Amyloidosis, Rare Plasma Cell Dyscrasias and Hematologic Malignancies: Diagnostic and Therapeutic Approaches**, Athens, Greece, 10–13/02/2023.

Presentation: “Cardiotoxicity of Immunoglobulins and Transthyretin”

8. **2nd Meeting of the COST Innovators Grant (CIG) "IMPACT" – Improving Preclinical Assessment of Cardioprotective Therapies**, IG16225 network, Reykjavik, Iceland, 06–08/09/2023.

Presentation: “Cardiotoxicity in Light Chain Amyloidosis”

9. **2nd National Congress IEMVITHEC: Amyloidosis, Rare Plasma Cell Dyscrasias and Hematologic Malignancies: Diagnostic and Therapeutic Approaches**, Athens, Greece, 08–10/02/2024.

Presentation: “Cardiotoxicity in Light Chain and Transthyretin Amyloidosis”

10. **1st Training School & International Conference, EU-METAHEART – COST Action 22169, Comprehensive Heart Failure Center Würzburg, Würzburg, Germany**, 09–13/09/2024.

Presentation: “Empagliflozin in Acute Myocardial Infarction Reduces No-Reflow and Preserves Cardiac Function by Preventing Endothelial Damage”

11. **Panhellenic Seminars of the Working Groups of the Hellenic Society of Cardiology**, Athens, Greece, 6-8/02/2025.

Lecture (Ioannis Terrovitis): “Challenges in Translational Research in Cardiac Amyloidosis”

12. **Gender Equality and Anti-Discrimination Committee of the National and Kapodistrian University of Athens**, Athens, Greece, 17/02/2025.

Presentation: “Ioanna Andreadou: The Scientist, the Mentor, the Woman Behind It All”

13. **3rd National Congress IEMVITHEC: Amyloidosis, Rare Plasma Cell Dyscrasias and Hematologic Malignancies: Diagnostic and Therapeutic Approaches**, Athens, Greece, 21–23/02/2024.

Presentation: “Cardiotoxicity of immunoglobulin light chains: Recent Data”

14. **20th Conference of the Hellenic Society of Medicinal Chemistry**, Ioannina, Greece, 03–05/04/2025.

Presentation: “Bridging Cardiovascular Pharmacology and Immunology: Molecular Mechanisms in Translational Research”

15. **25th Hellenic Hypertension Congress**, Thessaloniki, Greece, 06–08/11/2025.

Presentation: “Pharmacogenomics in Arterial Hypertension: Tailoring Therapies to the Genetic Profile”

16. **11th Panhellenic Congress of Working Groups, Hellenic Atherosclerosis Society**, Athens, Greece, 05–06/12/2025

Presentation: “Natural Products and Atherosclerosis: From Basic Research to Clinical Practice”

17. **4th National Congress IEMVITHEC: Amyloidosis and Other Rare Hematologic Malignancies: Diagnostic and Therapeutic Approaches**, Athens, Greece, 13–15/02/2026.

Presentation: “Cardiotoxicity of Immunoglobulins and TTR – In Vitro & In Vivo Models, Discussion and Commentary”

18. **Panhellenic Seminars of the Working Groups of the Hellenic Cardiology Society**, Thessaloniki, Greece, 12–14/02/2026.

Lecture (Ioannis Terrovitis): “Cardioprotective Mechanisms of SGLT2 Inhibitors: Novel Targets and Impact on Immunometabolism”

19. **39th Meeting of the European Section of the International Society for Heart Research (ISHR)**, Birmingham, United Kingdom, 22–25/06/2026.

Presentation: “Cardioprotective Mechanisms of SGLT2 Inhibitors: Beyond Glycaemia”

Oral announcements/ Poster presentations

- More than 50 presentations including oral announcements (25) and poster presentations (24) in national (11) and international congresses (39) (European Society of Cardiology, International Society of Heart Research, International Society of Amyloidosis, Hellenic Society of Basic and Clinical Pharmacology, etc)

Research Grants and Funded Projects

2026 | Principal Investigator

Targeting the Bone Marrow–Immune–Heart Axis through Novel Natural Pharmacological Combinations as a Therapeutic Strategy for Healthy Aging.
Funded by **UNIPHARMA S.A.**

2026 | Grant Recipient – ESC First Contact Initiative Grant

Deciphering the Pathophysiology of Cardiac Amyloidosis Using Advanced Human Myocardial Microtissue (hMMT) Models

European Society of Cardiology (ESC). Short-term research visit at the **Center for Molecular Cardiology, University of Zurich, Switzerland.**

2024–2025 | Co-Investigator

Comprehensive Exploration of Molecular Pathways and Biomarkers in Myeloma-Induced Bone Disease: A Multi-Omics Approach for Personalized Therapeutic Management.

Funded by the **International Myeloma Society (IMS).**

2023–2027 | Working Group Leader, WG3: Immunometabolism

COST Action CA22169 – European Network to Tackle METAbolic Alterations in HEART Failure (EU-METAHEART).

European Cooperation in Science and Technology (COST).

2023–2024 | Co-Investigator

Investigation of Empagliflozin as an Agent to Alleviate Myocardial Ischemia–Reperfusion Injury and Microvascular Obstruction.

Funded by **Boehringer Ingelheim International GmbH**.

2023–2024 | Co-Investigator

Establishment of Light Chain-Derived Amyloidoma-Bearing Mice and Evaluation of Radiodiagnostic Approaches.

Improving Detection of AL Amyloidosis (IDEA) QuickFire Challenge, Johnson & Johnson.

2022–2024 | Research Team Member

Elucidation of Light Chain Amyloidosis-Induced Cardiotoxicity: Establishment of In Vitro and In Vivo Models (ENLIGHTMENT).

Funded by the **Hellenic Foundation for Research and Innovation (H.F.R.I.)**.

Professional society memberships

European Hematology Association (EHA)

European Society of Cardiology (ESC)

ESC Working Group on Cellular Biology of the Heart

Hellenic Society of Basic and Clinical Pharmacology

Hellenic Society of Cardiology

Hellenic Society of Hematology (HSH)

HSH Working Group on Plasma Cell Dyscrasias

International Society of Amyloidosis (ISA)

International Society of Heart Research (ISHR)

Reviewer in scientific journals

- American Journal of Physiology – Heart and Circulatory Physiology (IF: 4.1, American Physiological Society)

- Apoptosis (IF: 8.1, Springer Nature)
- Basic Research in Cardiology (IF: 8.0, Springer Nature)
- Biomedicine & Pharmacotherapy (IF: 7.5, Elsevier)
- BMC Pharmacology and Toxicology (IF: 2.7, BioMed Central-Springer Nature)
- Cardiovascular Diabetology (IF: 10.6, BioMed Central-Springer Nature)
- Data in Brief (IF: 1.4, Elsevier)
- Journal of Medicinal Chemistry (IF: 6.8, American Chemical Society-ACS)
- Hellenic Journal of Cardiology (IF: 3.0, Elsevier)
- npj Science of Food (IF: 7.8, Springer Nature)
- Scientific Reports (IF: 3.9, Springer Nature)
- The European Journal of Pharmacology (IF: 4.7, Elsevier)

Editor (guest)

- American Journal of Physiology – Heart and Circulatory Physiology (IF: 4.1, American Physiological Society)

Accomplishments

2026-2030 Working group member of EU-COST, European Initiative to Enhance the Current SABV Policy in Preclinical Biomedical Research (EU-SABV, CA24168)

2025–2027 **Elected member of the Core Group of the *Scientists of Tomorrow (SoT)*** within the European Society of Cardiology (ESC).
<https://www.escardio.org/The-ESC/ESC-Young-Community/Scientists-of-Tomorrow>

2025-2027 **Elected Core Working group Leader of WG3: Immunometabolism**, EU-COST, European network to tackle METAbolic alterations in HEART failure (EU-METAHEART CA22169)

2023 **(Co-)Inventor in Patent** No. 1010378 – 17/01/2023: "Composition for the management of menopausal and/or perimenopausal symptoms"

Awards and grants

- 2026 **ESC First Contact Initiative Grant, Center for Molecular Cardiology of the University of Zurich (Switzerland)**
- 2025 **Short Term Scientific Mission EU-Cost Action CA22169 - European network to tackle METAbolic alterations in HEART failure (META-HEART).** Visiting researcher at Research Institute Sant Pau, Hospital de la Santa Creu, Barcelona, Spain.
- Prize for Best Oral Announcement:** 17th Symposium of the Hellenic Society of Basic and Clinical Pharmacology, May 2025, Athens, Greece. Title: *Mechanist insights in light chain-associated cardiovascular toxicity: implication of IRE-1/NF-kB/ICAM-1 pathway activation.*
- Travel grant:** International Society of Amyloidosis (ISA) Scientific Workshop: “Amyloidosis from Bench to Bedside and Back Again”, Collegio Fondazione Ghislieri, October 2025 Pavia, Italy
- 2024 **Prize for Best Oral Announcement:** 45th Panhellenic Congress of the Hellenic Society of Cardiology, October-November 2024, Hersonisos, Crete, Greece. Title: *Empagliflozin affects the transcriptome of endothelial cells, reduces no-reflow injury, and preserves cardiac function in acute myocardial infarction.*
- Travel grant:** ESC Congress 2024 from the ESC Council on Basic Cardiovascular Science, August 2024, London, United Kingdom, Title: *Empagliflozin treatment pre- and post- acute myocardial infarction reduces no-reflow, inflammatory cell infiltration and infarct size while preserving cardiac function.*
- 2023 **Short Term Scientific Mission EU-Cost Action IG16225 - IMproving Preclinical Assessment of Cardioprotective Therapies (IMPACT).** Visiting researcher at Radboud Institute for Molecular Life Sciences, Nijmegen, the Netherlands.

- Best Poster Award:** Biennial meeting: Cellular Biology of the Heart & Myocardial Function Meeting, November 2023, Naples, Italy. Title: *In vitro and in vivo characterization of cardiotoxicity in light chain amyloidosis.*
- 2022 **Best Poster Award:** 12th Congress of the Hellenic society of Basic and Clinical Pharmacology, October 2022 Arta, Greece. Title: *Cardiotoxicity in cardiac light chain amyloidosis: implication and therapeutic potential of endoplasmic reticulum stress.*
- 2019 -2022 **H.F.R.I. Scholarships for PhD Candidates** (Hellenic Foundation for research and innovation) (Scholarship duration: 36 months)
- 2019 **Short Term Scientific Mission. EU-Cost Action Cardioprotection (CA16225-45011).** Visiting researcher at The Hatter Cardiovascular Institute, University College London, London, United Kingdom.
- 2018-2019 **Onassis Foundation Scholarships for PhD candidates** (ID: G ZO 020-1/2018-2019) (Scholarship duration:12 months)
- 2018 **Travel grant:** 35th meeting of the International Society of Heart Research European Section, July 2018, Amsterdam, The Netherlands. Title: *Investigation of the glycogen synthase kinase 3 beta-mPTP interaction in cardioprotection with novel GSK3 β inhibitors.*
- Prize for Best Oral Announcement:** 10th Congress of Hellenic company of Basic and Clinical Pharmacology, May 2018, Ioannina, Greece. Title: *Novel indirubin derivatives attenuate infarct size through glycogen synthase kinase-3 β inhibition: The emerging role of region-specific phosphorylation beyond mPTP opening*
- 2012 **Distinction:** Foundation of National Scholarships (IKY Foundation), Athens, Greece: Award for acquiring the 1st Place in the Department of Pharmacy, NKUA

2010 **Eurobank Scholarships-2010:** for the highest grades acquired during the Panhellenic Examinations for entering Public Universities (Grade 19,540/20,000)

Scientific outreach and organizational involvement

Conference Organization:

- Member of the organizing committee of the *3rd EU-CARDIOPROTECTION COST Action WG Meeting*, Kamari, Santorini, Greece (October 8–10, 2018).
- Organizer of the *COST EU-METAHEART MC3 Meeting*, Heraklion, Crete (March 18–20, 2025).

Science Communication & Gender Equality Advocacy:

- **Scientific Writer and Communication Officer** for the *Greek Women in STEM* initiative (funded by Dr. Lina Ntokou, June 2022 – June 2024), promoting the work of Greek women scientists and gender equality in science.
- **Collaboration with SciCo**, a non-profit organization for science outreach:
 - o *Athens Science Festival (ASF) 2023*: Panel moderator on STEM education and speaker of the talk “**You and the Science of 2040.**”
 - o *ASF 2024*: Organizer of a public science experiment and a flash mob performance with 15 professional dancers and 60 volunteers. [Watch video](#)

Research Communication & Project Management:

- Manager of the website for the research program **ENLIGHTMENT** (*Elucidation of LIGHT chain amyloidosis-induced cardiotoxicity*), providing updates and support on research progress. www.enlightment.net (June 2024 – present)

Academic Laboratory Coordination:

- Ongoing organizational role at the **Laboratory of Pharmacology**, Department of Pharmacy, NKUA, involving coordination of lab activities and student training (November 2022 – April 2026).

Seminars/Courses/Workshops

January 2026	Red cross First Aid Certification
November 2025	Epistimi's leadership program based on Massachusetts Institute of Technology (MIT) LEAPS -LEAdership and Professional Skills and Strategies (1 semester).
November 2024	Hand-on R-week, Data science 101: Breaking up with Excel
October 2019	EACVI Webinar: Storage and infiltrative cardiomyopathies.
June 2019	ECS Basic Research Summer School , Nice, France.
2018-2023	ICH GOOD CLINICAL PRACTICE E6 (R2) , Online course and certification.
November 2017	Workshop “Clinical Trials: Design, implementation and management” , ELPEN Pharmaceutical industry, Pikermi, Greece.
October 2017	3rd LAS EU Functions Course, FELASA Course ID: F056/16 , Modules A, B, C, D, Athens, Greece.
June 2015	Workshop: Exploring structure-based design Drug Design with Maestro SCHRODINGER , NKUA, Athens, Greece.

Relevant skills

Laboratory skills in molecular biology and biochemistry

Mammalian and bacterial cell culture | Isolation of primary cells | Proliferation assays | Transfection | Cloning and overexpression of genes | Plasmid preparation (ligation, transformation) | Genomic DNA extraction | Total RNA extraction | RNA isolation and preparation for 3'mRNA sequencing | PCR RT-PCR | Protein purification and

quantification | Determination of endotoxin levels | Silver and Coomassie staining | Western blot | Immunoprecipitation | Differential scanning fluorimetry (DSF) | Elisa assays | Proteomics | Enzyme kinetics | Mitochondria functional assays | Immunohistochemistry | Immunofluorescence | Laser Caption Microdissection | Decellularization

Scientific analysis and presentation tools

Graphpad Prism | Image J | GelPro | Fiji | GIMP | BLAST | ExPASy| MultAlign | MegaX | Jalview | ImmunoGeneTics | Megellan (Tecan plate reader software) | Biorender | Castor (Randomization and data management) | G Power | R language and R studio platform | 10X platforms for single-cell analysis.

Communication

Scientific writing| Project proposal writing for funding | Technical writing | Peer-reviewed publication | Public speaking | Presentation skills | Science communication | Teaching | International collaboration | Negotiation.

Animal models:

High fat induced metabolic syndrome | Atherosclerosis models | Animal models with diabetes | Cardiac ischemia/reperfusion injury mouse and rat model | Permanent ligation murine model | Cardiotoxicity models | Immunosuppressed NOD.Cg-Prkdcscid Il2rgtm1Wjl/SzJ | Animal models of plasma cell dyscrasias and amyloidosis.

Language proficiency:

English: (*Certificate of Proficiency in English University of Cambridge Grade A, Certificate of Proficiency in English University of Michigan Grade High Pass*) | French: (*Certificat de Langue Francaise, L' Institut Francais B2 Grade 88.50/100*) | Greek (*mother tongue*).