

Name: Erasmia Rouka, BSc, MSc, PhD

Date of Birth: 29 April 1976

Present Appointment: Assistant Professor of Applied Biosciences in Nursing, Department of Nursing, Faculty of Health Sciences, University of Thessaly, Larissa, Greece

Professional Experience			
Dates		Appointment	
<i>May 2022-</i>		Assistant Professor, Department of Nursing, Faculty of Health Sciences, University of Thessaly, Greece	
<i>May 2008 – May 2022</i>		Biologist, Department of Transfusion Medicine, University Hospital of Larissa, Greece	
<i>June 2002 – May 2008</i>		Nurse, Department of Transfusion Medicine, University Hospital of Larissa, Greece	
Academic Degrees			
Date	Title of Award	Subject	Awarding Body
<i>Feb 1996 – Oct 1999</i>	BSc	Nursing	Alexander Technological Educational Institute, Thessaloniki, Greece
<i>Mar 2000 – Jul 2005</i>	BSc	Biology	Aristotle University, Thessaloniki, Greece
<i>Sep 2012-Jun 2014</i>	MSc	Primary Health Care	University of Thessaly, Larissa, Greece
<i>Jan 2009 – July 2015</i>	PhD	Molecular Epidemiology	University of Thessaly, Larissa, Greece

Publication Track Record (2011-2023)

Number of Publications: 33; Citations (Scopus-18.10.23): 127, h-index: 6, ORCID: <https://orcid.org/0000-0003-2885-4510>

1. Siapati EK, Papadaki M, Kozaou Z, **Rouka E**, Michali E, Savvidou I, Gogos D, Kyriakou D, Anagnostopoulos NI, Vassilopoulos G. Proliferation and bone marrow engraftment of AML blasts is dependent on β -catenin signalling. *Br J Haematol* 2011; 152(2):164-174.
2. Siapati EK, **Rouka E**, Kyriakou D, Vassilopoulos G. Neuroblastoma cells negative for CD44 possess tumor-initiating properties. *Cell Oncol (Dordr)* 2011; 34(3):189-197.
3. Klonizakis P, Tselios K, Sarantopoulos A, Gougourellas I, **Rouka E**, Onufriadou Z, Kapali P, Kyriakou D, Boura P. ADAMTS-13 metalloprotease abnormalities in systemic lupus erythematosus: is there a correlation with disease status? *Lupus* 2013; 22(5):443-452.

4. Mitrakas LP, Zachos IV, Tzortzis VP, Gravas SA, **Rouka EC**, Dimitropoulos KI, Vandoros GP, Karatzas AD, Melekos MD, Papavassiliou AG. Previous Bladder Cancer History in Patients with High-Risk, Non-muscle-invasive Bladder Cancer Correlates with Recurrence and Progression: Implications of Natural History. *Cancer Res Treat* 2015; 47(3):495-500.
5. **Rouka E**, Kyriakou D. Molecular epidemiology of human Herpesviruses types 1-6 and 8 among Greek blood donors. *Transfus Med* 2015; 25(4):276-279.
6. **Rouka E**, Kyriakou D. Identification and functional analysis of the BIM interactome; new clues on its possible involvement in Epstein-Barr Virus-associated diseases. *J Biol Res (Thessalon)* 2015; 22:14.
7. **Rouka E**, Kyriakou D. Diagnosis of Chromosomally Integrated HHV-6: Comment on the 'Molecular prevalence of human Herpesviruses types 1-6 and 8 in Greek blood donors'. *Transfus Med* 2016; 26(1): 71-72.
8. **Rouka E**, Vavougiou GD, Solenov EI, Gourgoulialis KI, Hatzoglou C, Zarogiannis SG. Transcriptomic Analysis of the Claudin Interactome in Malignant Pleural Mesothelioma: Evaluation of the Effect of Disease Phenotype, Asbestos Exposure, and CDKN2A Deletion Status. *Front Physiol* 2017; 8:156.
9. **Rouka E**. Hypothesis: Is there a link between the immune response to Human Herpes Virus type 6A (HHV-6A) infection and the interaction network (interactome) of the genes encoding the CTSS, PTX3, CHI3L1, Mx1, CXCL16, BIRC3 and BST2 proteins? *Med Hypotheses* 2018; 112: 47-50.
10. **Rouka E**, Kotsiou OS, Kyriakou D, Gourgoulialis KI, Zarogiannis SZ. Pleural effusions induced by Human Herpesviruses in the immunocompetent host. *Infect Dis (Lond)* 2019;51(3):189-196.
11. **Rouka E**, Beltsios E, Goundaroulis D, Vavougiou GD, Solenov EI, Hatzoglou C, Gourgoulialis KI, Zarogiannis SG. In Silico Transcriptomic Analysis of Wound-Healing-Associated Genes in Malignant Pleural Mesothelioma. *Medicina (Kaunas)* 2019;55(6). pii: E267.
12. **Rouka E**, Liakopoulos V, Gourgoulialis KI, Hatzoglou C, Zarogiannis SG. In-Depth Bioinformatic Study of the CLDN16 Gene and Protein: Prediction of Subcellular Localization to Mitochondria. *Medicina (Kaunas)* 2019;55(8). pii: E409.
13. **Rouka E**, Hatzoglou C, Gourgoulialis KI, Zarogiannis SG. Interactome networks between the human respiratory syncytial virus (HRSV), the human metapneumovirus (HMPV), and their host: In silico investigation and comparative functional enrichment analysis. *Microb Pathog.* 2020;141:104000.
14. **Rouka E**, Gourgoulianni N, Lüpold S, Hatzoglou C, Gourgoulialis K, Blanckenhorn WU, Zarogiannis SG. The Drosophila septate junctions beyond barrier function: Review of the literature, prediction of human orthologs of the SJ-related proteins and identification of protein domain families [published online ahead of print, 2020 Jun 30]. *Acta Physiol (Oxf)*. 2020;e13527.
15. **Rouka E**. The effect of the COVID-19 pandemic on the adequacy of blood supply: Specialists in transfusion medicine need to establish models of preparedness. *Transfus Apher Sci.* 2021;60(1):102960.
16. Jagirdar RM, Papazoglou ED, Pitaraki E, Kouliou OA, **Rouka E**, Giannakou L, Giannopoulos S, Sinis SI, Hatzoglou C, Gourgoulialis KI, Zarogiannis SG. Cell and extracellular matrix interaction models in benign mesothelial and malignant pleural mesothelioma cells in 2D and 3D in-vitro. *Clin Exp Pharmacol Physiol.* 2021;48(4):543-552.
17. Giannakou LE, Giannopoulos AS, Hatzoglou C, Gourgoulialis KI, **Rouka E**, Zarogiannis SG. Investigation and Functional Enrichment Analysis of the Human Host Interaction Network with Common Gram-Negative Respiratory Pathogens Predicts Possible Association with Lung Adenocarcinoma. *Pathophysiology.* 2021;28(1):20-33.
18. **Rouka E**, Gourgoulialis KI, Zarogiannis SG. In silico investigation of the viroporin E as a vaccine target against SARS-CoV-2. *Am J Physiol Lung Cell Mol Physiol.* 2021;320(6):L1057-L1063.

- 19. Rouka E**, Kotsiou OS, Perlepe G, Pagonis A, Pantazopoulos I, Gourgoulisanis KI. Temporal Associations of the SARS-CoV-2 NP Antigen and Anti-Spike Total Ig Levels with Laboratory Parameters in a Greek Cohort of Hospitalized COVID-19 Patients. *Can Respir J*. 2021;2021:6590528.
- 20. Rouka E**, Gourgoulianni N, Lüpold S, Hatzoglou C, Gourgoulisanis KI, Zarogiannis SG. Prediction and enrichment analyses of the Homo sapiens-Drosophila melanogaster COPD-related orthologs: potential for modeling of human COPD genomic responses with the fruit fly. *Am J Physiol Regul Integr Comp Physiol*. 2022;322(1):R77-R82.
- 21. Rouka E**, Kotsiou OS, Perlepe G, Pagonis A, Pantazopoulos I, Gourgoulisanis KI. Alanine aminotransferase serum levels in COVID-19 patients inversely correlate with SARS-CoV-2 antigen. *Eur J Gastroenterol Hepatol*. 2021;33(1S Suppl 1):e1080.
- 22.** Pantazopoulos I, Magounaki K, Kotsiou O, **Rouka E**, Perlikos F, Kakavas S, Gourgoulisanis K. Incorporating Biomarkers in COPD Management: The Research Keeps Going. *J Pers Med*. 2022;12(3):379.
- 23. Rouka E**, Livanou E, Sinis S, Dimeas I, Pantazopoulos I, Papagiannis D, Malli F, Kotsiou O, Gourgoulisanis KI. Immune response to the severe acute respiratory syndrome coronavirus 2 vaccines: Is it sustained in the diabetes population? *J Diabetes Investig*. 2022;13(8):1461-1462.
- 24.** Livanou E, **Rouka E**, Sinis S, Dimeas I, Pantazopoulos I, Papagiannis D, Malli F, Kotsiou O, Gourgoulisanis KI. Predictors of SARS-CoV-2 IgG Spike Antibody Responses on Admission and Clinical Outcomes of COVID-19 Disease in Fully Vaccinated Inpatients: The CoVax Study. *J Pers Med*. 2022;12(4):640.
- 25.** Papagiannis D, Thireos E, Mariolis A, Katsioulis A, Gartzonika K, Malliaraki N, Agnantis C, Tsaras K, Malli F, **Rouka EC**, Tsiaousi I, Symvoulakis EK, Rachiotis G, Gourgoulisanis KI. Pertussis Prevalence in Adult Population in Greece: A Seroprevalence Nationwide Study. *Vaccines*. 2022; 10(9):1511.
- 26.** Pantazopoulos I, Chalkias A, Mavrovounis G, Dimeas I, Sinis S, Miziou A, **Rouka E**, Poulas K, Gourgoulisanis K. Nasopharyngeal Wash with Normal Saline Decreases SARS-CoV-2 Viral Load: A Randomized Pilot Controlled Trial. *Can Respir J*. 2022;2022:8794127.
- 27. Rouka E**, Livanou E, Sinis S, Dimeas I, Pantazopoulos I, Papagiannis D, Malli F, Kotsiou O, Gourgoulisanis KI. Investigation of admission serum creatinine as a predictor of hospital length of stay in triple-vaccinated COVID-19 inpatients. *Int Health*. 2023:ihad008.
- 28.** Jagirdar RM, Pitaraki E, Kotsiou OS, **Rouka E**, Sinis SI, Varsamas C, Marnas P, Stergiopoulou E, Giannou A, Hatzoglou C, Gourgoulisanis KI, Zarogiannis SG. Effects of pharmacological primary cilium disturbance in the context of in vitro 2D and 3D malignant pleura mesothelioma. *Biochem Biophys Res Commun*. 2023;654:128-135.
- 29.** Tsitsami E, Sarrigeorgiou I, Tsinti M, **Rouka EC**, Zarogiannis SG, Lymberi P. Natural autoimmunity in oligoarticular juvenile idiopathic arthritis. *Pediatr Rheumatol Online J*. 2023;21(1):44.
- 30.** Pantazopoulos I, Chalkias A, Miziou A, Spanos M, Gerovasileiou E, **Rouka E**, Gourgoulisanis K. A Hypertonic Seawater Nasal Irrigation Solution Containing Algal and Herbal Natural Ingredients Reduces Viral Load and SARS-CoV-2 Detection Time in the Nasal Cavity. *J Pers Med*. 2023;13(7):1093.
- 31. Rouka E**, Jagirdar RM, Sarrigeorgiou I, Pitaraki E, Sinis SI, Varsamas C, Papazoglou ED, Kotsiou OS, Lymberi P, Giannou A, Hatzoglou C, Gourgoulisanis KI, Zarogiannis SG. Changes in expression of mesothelial BBS genes in 2D and 3D after lithium chloride and ammonium sulphate induction of primary cilium disturbance: a pilot study. *Pharmacol Rep*. 2023. doi: 10.1007/s43440-023-00513-0. Epub ahead of print.
- 32.** Lampropoulos IC, Kirgou P, Raptis DG, Rouka E, Kotsiou O, Papagiannis D, Daniil Z, Gourgoulisanis KI, Malli F. Changes in Smoking Habits in Greece During the Lockdown Measures Due to COVID-19. *Adv Exp Med Biol*. 2023;1425:275-281.

33. Rouka E, Zarogiannis SG, Hatzoglou C, Gourgoulialis KI, Malli F. Identification of Genes and miRNAs Associated with TAFI-Related Thrombosis: An in Silico Study. *Biomolecules*. 2023; 13(9):1318.

Society Memberships

Hellenic Thoracic Society; European Respiratory Society; European Society of Virology; Panhellenic Union of Bioscientists; European Association of Cancer Research

Editorial Board Memberships: *Frontiers in Physiology*, 2017 –

Ad-Hoc Reviewer: *Frontiers in Cell and Developmental Biology* (IF: 6.684); *Frontiers in Physics* (IF: 3.56); *Frontiers in Physiology* (IF: 4.755); *Occupational and Environmental Medicine* (IF: 4.948); *The FASEB Journal* (IF: 5.834); *BMC Pulmonary Medicine* (IF: 3.320).

Travel Grants

Berlin 2017, 10th International Conference on Human Herpesvirus 6 and 7; *Boston 2015*, 9th International Conference on Human Herpesvirus 6 and 7; *Vienna 2013*, European Society of Virology Workshop: Techniques in Clinical Virology; *Freiburg 2019*, European Society of Virology Workshop: Nosocomial Viral Infections

Research Grants

Hellenic Foundation for Research and Innovation Grant: The role of the primary cilium in the physiology and pathophysiology of pleural mesothelial cells. Functional and molecular studies in two-dimensional and three-dimensional cell cultures of patients with infectious and malignant pleural effusions. Role: Research Team Member (10.10.2019-).

Research and Innovation Structure of the University of Thessaly. Young Faculty Grant. *In vivo* study of Cigarette Smoke-induced COPD with the fruit-fly model. Role: Principal Investigator (09/2022-).

Complementary distance learning:

2016, **Pharmacogenomics and personalized therapy**, University of Piraeus, Greece; 2019, **Introduction to Systems Biology**, Icahn School of Medicine at Mount Sinai; 2020, Global Disease Masterclass: **Global Disease Distribution**, Imperial College London

Oral and poster presentations in several international conferences

- 50th Annual Meeting of the American Society of Haematology, Association of ADAMTS13 Activity with Gender in Normal Adult Cohort, 6-9 December 2008, San Francisco, California, USA.
- 51st Annual Meeting of the American Society of Haematology, AML Survival and In Vivo Progression Is Dependent On β -Catenin Signaling, 5-8 December 2009, New Orleans, Louisiana, USA.
- 14th Congress of the European Haematology Association, Differences in expression of genes involved in nuclear factor Kappa B (NFkB) pathway after analysis by quantitative polymerase chain reaction arrays in myelodysplastic syndromes (MDS) patients, 4-7 June 2009, Berlin, Germany.
- 15th Congress of the European Haematology Association, Thrombosis in relation to Von Willebrand Factor, VWF propeptide and adamts13 protease levels in Philadelphia chromosome negative myeloproliferative neoplasms, 10-13 June 2010, Barcelona, Spain.
- 21st Regional Congress of the International Society of Blood Transfusion, PCR detection of Herpesviruses types 1,2,3,6 and 8 in whole blood obtained from healthy blood donors of Central Greece, 18-22 June 2011, Lisbon, Portugal.
- 54th Annual Meeting of the American Society of Haematology, Severe Sickle Cell Disease Is Characterized by Low ADAMTS13/VWF: Ag Ratio, 8-11 December 2011, Atlanta, Georgia, USA.
- 38th Congress of the Federation of European Biochemical Societies, Computational transcriptomic analysis of claudins in malignant pleural mesothelioma reveals significant correlations in their gene expression patterns, 6-9 July 2013, St Petersburg, Russia.

- International Congress of the European Respiratory Society, Effect of asbestos on gene expression of tight junctions components in malignant pleural mesothelioma, 3-7 September 2016, London, UK.
- 10th International Conference on HHV-6&7, Investigation of the possible link between the interaction network (interactome) of the genes encoding the CTSS, PTX3, CHI3L1, Mx1, CXCL16, BIRC3, BST2 proteins and host's immune response to HHV-6 infection, 23-26 July 2017, Berlin, Germany.
- 17th European Conference on Computational Biology, In-Silico analysis of the CLDN16 gene and protein: prediction of subcellular localization to mitochondria, 8-12 September 2018, Athens, Greece.
- 17th European Conference on Computational Biology, Bioinformatic analysis of OCLN gene and protein and its differential expression in human cancers, 8-12 September 2018, Athens, Greece.
- 17th European Conference on Computational Biology, RAG recombinase and DNA sequence dependent interactors promote recurrent gene fusions in solid tumors, 8-12 September 2018, Athens, Greece.
- International Congress of the European Respiratory Society, In silico investigation and comparative functional enrichment analysis of the human-respiratory syncytial virus (RSV) and the human-metapneumovirus (MPV) gene interaction networks, 28 September-2 October 2019, Madrid, Spain.
- International Congress of the European Respiratory Society, Investigation and functional enrichment analysis of the human gene interaction network with common gram-negative respiratory pathogens predicts possible association with lung adenocarcinoma, 28 September-2 October 2019, Madrid, Spain.
- International Congress of the European Respiratory Society, Antibody epitope and mimotope prediction of the viroporins M2 of the Influenza A virus, E of the Human SARS coronavirus and SH of the Respiratory Syncytial virus, 28 September-2 October 2019, Madrid, Spain.
- International Congress of the European Respiratory Society, Measurement of Natural antibodies (NABs) against actin, DNA and trinitrophenol in the fluid of pleural effusion patients with various etiologies, Virtual Congress, 6–9 September 2020.
- International Congress of the European Respiratory Society, Prediction of human orthologs to the Drosophila's COPD-associated genes, Virtual Congress, 6–9 September 2020.
- International Congress of the European Respiratory Society, Effect of primary cilium-associated genes expression on the survival of mesothelioma patients: In silico investigation of TCGA data, Virtual Congress, 6–9 September 2020.
- International Congress of the European Respiratory Society, Primary cilium regulates cell migration and mechanical contraction in mesothelioma cell models, Virtual Congress, 5–8 September 2021.
- International Congress of the European Respiratory Society, Primary cilium modulates mesothelioma cell viability and 3D sphere formation, Virtual Congress, 5–8 September 2021.
- International Congress of the European Respiratory Society, Correlates of the SARS-CoV-2 Ag or Total Ig antibody levels with hematological parameters in Greek hospitalized COVID-19 patients, Virtual Congress, 5–8 September 2021.
- European Association for Cancer Research (EACR) 2022 conference, Primary Cilium BBS5 gene expression occurs in human malignant mesothelioma cells as opposed to human benign mesothelial cells, 20-23 June 2022, Seville, Spain.
- European Association for Cancer Research (EACR) 2022 conference, Modification of BBSome gene expression components in malignant pleural mesothelioma cells under the influence of the Primary Cilium modulating agent, ammonium sulphate, 20-23 June 2022, Seville, Spain.
- International Congress of the European Respiratory Society, Molecular identification of the primary cilium BBSome complex in pleural mesothelial cells, 4-6 September 2022, Barcelona, Spain.
- International Congress of the European Respiratory Society, Global trends in mesothelioma incidence, mortality and disability adjusted life years for the period 1990-2019, 4-6 September 2022, Barcelona, Spain.
- International Congress of the European Respiratory Society, Human malignant pleural mesothelioma derived pleura fluid induces mesenchymal transition of benign pleural mesothelial cells, 4-6 September 2022, Barcelona, Spain.

- European Association for Cancer Research (EACR) 2023 conference, Primary cilium BBSome gene expression and cell migration during protein induced hyperosmotic stress in mesothelial and mesothelioma cells, 12-15 June 2023, Torino, Italy.
- European Association for Cancer Research (EACR) 2023 conference, Effects of malignant pleural effusion on BBSome components of the Primary Cilium (PC) and cell migration in benign mesothelial cells, 12-15 June 2023, Torino, Italy.
- European Association for Cancer Research (EACR) 2023 conference, Changes to primary cilium composition of BBS genes in response to Hydrogen peroxide mediated oxidative stress and primary cilium influenced cell migration, 12-15 June 2023, Torino, Italy.
- European Association for Cancer Research (EACR) 2023 conference, LPS induced inflammatory effects on the primary cilium (PC) associated BBSome complex and PC associated migration of mesothelial and primary mesothelioma cells, 12-15 June 2023, Torino, Italy.
- International Congress of the European Respiratory Society, Immunoinformatics investigation of B- and T- cell epitopes in the VP2 protein of the BOCA respiratory virus, 9-13 September 2023, Milan, Italy.
- International Congress of the European Respiratory Society, In silico investigation of B- and T-cell epitopes in the M2 protein of the H5N6 influenza virus, 9-13 September 2023, Milan, Italy.
- International Congress of the European Respiratory Society, Primary cilium associated BBSome gene expression during inflammatory stress in mesothelial cells and primary mesothelioma cells, 9-13 September 2023, Milan, Italy.