

Dr Pelagia (Peli) Foka

Education

1998-2003: Ph.D. in Molecular Biology/Biochemistry (Thesis on the Transcriptional Regulation of C/EBP transcription factors during the acute phase response - under the supervision of Dr D.P. Ramji), Cardiff University - UK.

1993-1998: BSc in Chemistry (Final year project on the Effect of Cold Shock on the fatty-acid composition of different lipid classes of the food-borne pathogen *Listeria Monocytogenes*), National and Kapodistrian University of Athens - Greece.

Relevant Work Experience

04/2018-Present: Researcher Grade C' - Molecular Virology Laboratory, Hellenic Pasteur Institute.

2006-03/2018: Senior Postdoctoral researcher - Molecular Virology Laboratory & Molecular Biology and Immunobiotechnology Laboratory, Hellenic Pasteur Institute.

03/2003-02/2006: Postdoctoral Fellow (Wellcome Trust) - Dep. Of Biochemistry, Cardiff School of Biosciences Cardiff University, UK.

02/2002-02/2003: Junior Postdoctoral Fellow (BBSRC) - Welsh School of Pharmacy, Cardiff University, UK.

1998-2002: Demonstrator - School of Biological Sciences, Cardiff University.

Research Focus and Interests

Dr Peli Foka is a chemist, specialised in biochemistry and molecular biology. Her research interests include the study of molecular, cellular and epigenetic mechanisms involved in virus – host interactions with an emphasis on immunometabolism, inflammation and innate immunity. Additionally, she has initiated projects on the development of molecular diagnostics of viral infections, based on state-of-the-art synthetic biology techniques and the assembly and construction of 2D co-cultures and 3D-based organoid models that may be used to simulate the liver sinusoid and its interactions with the intestine and the immune system, in an attempt to shed light on the role of viral infections as initiators of human malignancy and autoimmune diseases. Over the years Dr Foka has built solid and fruitful international collaborations with university faculty members and researchers from Europe, Canada and Asia, as well as on the national level and co-workers from the Hellenic Pasteur Institute. She has also been involved in the training and supervision of a plethora of students in the laboratory, has been participating in university courses and setting up cutting-edge methodologies for the advancement of her research works.

Summary of Work	UP TO 08-2019
<i>Publications in International Peer-reviewed journals</i>	27
<i>Publications in Greek scientific journals</i>	1
<i>Published Proceedings in International Peer-reviewed journals</i>	17
<i>Book Chapters/ Deposited DNA Sequences in Public Databases</i>	1/ 2
<i>Oral/Poster Presentations in International/Greek Conferences</i>	24 (3 Oral) 30 (15 Oral)
<i>Citations (self-citations excluded)</i>	1261 (1248)
<i>Average Impact factor (highest – lowest)</i>	5,302 (13.246-1.076)
<i>Total Impact factor/ h-index</i>	222.687/ 12

[Publication List from Web of Science](#)

Awards and Distinctions

2018: Bronze medal in the iGEM 2018 Competition, as instructor of the iGEM Athens 2018 team (Undergraduate category / Diagnostics track) for the project: Ntekas Y., Litsa M., Krokos V., Katopodi X.-L., Kanata E., Kostadima E., Bartzoka N., Kotzastratis S., Spatharas P., Eliadis P., Georgopoulou U., Topakas E., Foka P. “GENOMERS: Toehold switch enabled viral detection via routine glucose monitoring technology”, oral & poster presentation @ iGEM 2018 Giant Jamboree, Boston, USA.

2017: Greek candidate for the International Pasteur Network Talent Award.

2015: 1st Oral Presentation Award for the presentation titled “Hepatitis C and cellular kinase network: An intriguing relationship” 14th Hellenic Liver Congress, Kos, Greece.

2014: Young Scientists Travel Award – Hellenic and French Pasteur Institutes, Scientific Symposium of the Institut Pasteur International Network, 10 - 13 September 2014, Paris, France.

2006: “BOURSE DE STAGE” Fellowship – Training in Molecular Virology, University of Lyon, France, Scientific department of the French Institute of Athens

2003: Wellcome Trust Fellowship - Molecular mechanisms involved in the transforming growth factor-beta-mediated inhibition of macrophage gene-expression relevant to foam cell formation and atherogenesis. Cardiff School of Biosciences, Cardiff University, UK

2002: BBSRC (Biotechnology and Biological Sciences Research Council) Fellowship – Synthesis of Poly(amidoamines) block copolymers and application in non-viral vector gene delivery (Centre for Polymer Therapeutics, Welsh School of Pharmacy, UK under the supervision of Prof. R. Duncan)

1998: PhD Studentship - School of Biosciences, Cardiff University, UK.

Research Grants and Project Participation

2018: Gilead Science Greece – Asklipios Grants – HCV-regulated lipid metabolism of the host as a putative mechanism for HCC development (P.I.)

2015: Hellenic Association for the Study of the Liver – Deregulation of Lipid Metabolism in Hepatocellular Carcinoma: The HCV paradigm (HPI) (Co-applicant with Dr U. Georgopoulou (HPI) as P.I.)

2011-2013: ESPA/Synergasia (Hellenic Ministry of Research – EU Research Fund) – Development of automated methods for measuring Hcpidin and investigation of its diagnostic and physiopathological role in diseases related to deregulated Iron homeostasis (HPI) (Participant)

2006-2009: FP6 - THOVLEN “Targeted herpes-virus derived oncolytic vectors for liver cancer European Network” (HPI) (Participant)

2003-2006: Wellcome Trust - Molecular mechanisms involved in the transforming growth factor-beta-mediated inhibition of macrophage gene-expression relevant to foam cell formation and atherogenesis (Cardiff School of Biosciences, Cardiff University, UK) (Named Co-applicant with Dr D.P.Ramji as P.I.)

2002-2003: BBSRC – Synthesis of Poly(amidoamines) block copolymers and application in non-viral vector gene delivery (Welsh School of Pharmacy, UK) (Participant)

Collaborators

International

- Prof. D.P. Ramji, (Inflammation, macrophage biology and gene regulation) School of Biosciences, Cardiff University UK

- Dr V. Diamanti, Senior Clinical Researcher (Stem cell therapies) Bristol Institute for Transfusion Sciences, NHS Blood and Transplant, UK

- Dr M. Thanou Senior Lecturer (Cancer nanotherapy and drug delivery), Institute of Pharmaceutical Science, King’s College, UK

- Dr S.A. Irvine, Senior Research Fellow (Synthetic cell scaffolding and 3D materials for tissue culture), Nanyang Technical University, Singapore

- Prof. F.T.Kockar, (Gene regulation) Balikesir University, Turkey

- Dr Ruben Hernandez Alcoceba, Primary Investigator (Gene therapy, cellular hypoxia) University of Navarra, Spain

- Dr S. Gobaa, Head of Facility (Microfluidics and Biomaterials), Institut Pasteur Paris, France

- Dr J. De Buck Assistant Professor (Veterinary Microbiology) University of Calgary, Canada

National

- Prof. J. Koskinas, Professor (Hepatology) Medical School of Athens, Greece

- Dr E. Tsitoura, Senior post-doctoral Researcher (Virology, Pulmonary Biology, Innate Immunity), School of Medicine, University of Crete, Greece

- Dr Germanidis Associate Professor (Gastroenterology) Medical School, University of Thessaloniki, Greece

- Prof. Simos G. Professor (Biochemistry) Medical School, University of Thessaly, Greece
Hellenic Pasteur Institute

- Dr E. Topakas, Associate Professor (Bioengineering, Enzymology) Chemical Engineering School, National Technical University of Athens

List of Publications

1. Karamichali E., Chihab H., Kakkanas A., Marchio A., Karamitos T., Pogka V., Varaklioti A., Kalliaropoulos A., Martinez-Gonzales B., **Foka P.**, Koskinas I., Mentis A., Benjelloun S., Pineau P., Georgopoulou U. (2018). HCV Defective Genomes Promote Persistent Infection by Modulating the Viral Life Cycle. **Front. Microbiol.** 9:2942. (IF₂₀₁₇:4.019).
2. Chihab H., Jadid F.Z., **Foka P.**, Zaidane I., El Fihry R., Georgopoulou U., Marchio A., Elhabazi A., Chair M., Pineau P., Ezzikouri S., Benjelloun S. (2018). Programmed cell death-1 3'-untranslated region polymorphism is associated with spontaneous clearance of hepatitis B virus infection. **J. Med. Virol.** 90(11):1730-1738. (IF₂₀₁₇:1.988).
3. Molyvdas A., Georgopoulou U., Lazaridis N., Hytiroglou P., Dimitriadis A., **Foka P.**, Vassiliadis T., Loli G., Phillipidis A., Zebekakis P., Germenis A.E., Speletas M., Germanidis G. (2018). The role of the NLRP3 inflammasome and the activation of IL-1 β in the pathogenesis of chronic viral hepatic inflammation. **Cytokine** 110:389-396. (IF₂₀₁₇:3.514)
4. Karamichali E., Serti E., Gianneli A., Papaefthymiou A., Kakkanas A., **Foka P.**, Seremetakis A., Katsarou K., Trougakos I.P., Georgopoulou U. (2017). The unexpected function of a highly conserved YXX Φ motif in HCV core protein. **Infect. Genet. Evol.** 54:251-262. (IF₂₀₁₇:2.545)
5. E. Kaffe, A. Katsifa, N. Xylourgidis, I. Ninou, M. Zannikou, V. Harokopos, **P. Foka**, A. Dimitriadis, K. Evangelou, A. Moulas, U. Georgopoulou, V. Gorgoulis, G. Dalekos, V. Aidinis (2017). Hepatocyte Autotaxin expression promotes liver fibrosis and cancer. **Hepatology** 65(4):1369-1383. (IF₂₀₁₇:14.079)
6. R.C. Salter*, **P. Foka***, T.S. Davies, H. Gallagher, D.R. Michael, T.G. Ashlin, D.P. Ramji (2016). Key roles for mitogen-activated protein kinases and sterol receptor coactivator-1 in TGF- β -regulated expression of genes implicated in macrophage cholesterol uptake. **Sci. Rep.** 6:34368 (* **Joint First Authors**). (IF₂₀₁₆:4.259)
7. **P. Foka**, A. Dimitriadis, E. Karamichali, E. Kyratzopoulou, D. Giannimaras, J. Koskinas, A. Varaklioti, A. Mamalaki, U. Georgopoulou (2016). Alterations in the iron homeostasis network: A driving force for macrophage-mediated Hepatitis C virus persistency. **Virulence** 7(6):679-690. (IF₂₀₁₆:4.665)
8. **P. Foka**, E. Karamichali, G. Dalagiorgou, E. Serti, P.P. Doumba, G. Pissas, A. Kakkanas, D. Kazazi, E. Kochlios, M. Gaitanou, J. Koskinas, U. Georgopoulou, P. Mavromara (2014). Hepatitis C virus (HCV) regulates the lipid metabolism regulatory factor Angiopoietin-like 3 (ANGPTL3) gene expression through repression of HNF-1 α activity. **J. Hepatol.** 60(1):30-38. (**Corresponding Author**) (IF₂₀₁₄:11.336)
9. **P. Foka**, A. Dimitriadis, E. Kyratzopoulou, D. Giannimaras, S. Sarno, G. Simos, U. Georgopoulou, A. Mamalaki (2014). Hepatitis C virus (HCV) core protein induces iron-regulatory Hephcidin (HAMP) gene expression via a signalling network that requires SMAD/BMP, STAT3 and CK2 pathway activation. **Cell. Mol. Life. Sci.** 71(21):4243-4258. (IF₂₀₁₄:5.808)
10. Georgopoulou, U., Dimitriadis, A., **Foka P.**, Karamichali, E., Mamalaki, A. (2014). Hephcidin and the iron enigma in HCV infection. **Virulence** 5(4):465-476. (IF₂₀₁₄:4.216)
11. Karamichali, E., **Foka P.**, Tsitoura, E., Kalliampakou, K., Kazazi, D., Karayiannis, P., Georgopoulou, U., Mavromara, P. (2014). HCV NS5A co-operates with PKR in modulating HCV IRES-dependent translation. **Infect. Genet. Evol.** 26:113-122. (IF₂₀₁₄:3.015)
12. Vassilaki, N., Kalliampakou, K.I., Kotta-Loizou, I., Befani, C., Liakos, P., Simos, G., Mentis, A.F., Kalliaropoulos, A., Doumba, P.P., Smirlis, D., **Foka P.**, Bauhofer, O., Poenisch, M., Windisch, M.P., Lee, M.E., Koskinas, J., Bartenschlager, R., Mavromara, P. (2013). Low Oxygen Tension Enhances Hepatitis C Virus Replication. **J. Virol.** 87(5), 2935-2948. (IF₂₀₁₃:4.648)
13. E. Kochlios, **P. Foka**, P. Mavromara (2012). Modulation of monocyte/macrophage-derived cytokine and chemokine expression profile by persistent Hepatitis C virus (HCV) infection leads to chronic inflammation. **J. Mol. Biochem.** 1, 40-53. (IF₂₀₁₄:3.300)
14. Dalagiorgou, G., Vassilaki, N., **Foka P.**, Boumlic, A., Kakkanas, A., Kochlios, E., Khalili, S., Aslanoglou, E., Veletza, S., Orfanoudakis, G., Vassilopoulos, D., Hadziyannis, S., Koskinas, J., Mavromara, P. (2011). High Levels of HCV core+1 Antibodies in HCV Patients with Hepatocellular Carcinoma. **J. Gen. Virol.** 92(6), 1343-1351. (IF₂₀₁₁:3.360)
15. Serti, E., Doumba, P.P., Thyphronitis, G., Tsitoura, P., Katsarou, K., **Foka P.**, Konstandoulakis, M.M., Koskinas, J., Mavromara, P., Georgopoulou, U. (2011). Modulation of IL-2 expression after uptake of hepatitis C virus non-enveloped capsid-like particles: the role of p38 kinase. **Cell. Mol. Life Sci.** 68(3), 505-522. (IF₂₀₁₁:6.570)
16. **Foka P.**, Pourchet, A., Hernandez-Alcoceba, R., Doumba, P.P., Pissas, G., Kouvatzis, V., Dalagiorgou, G., Kazazi, D., Marconi, P., Foschini, M., Manservigi, R., Konstadoulakis, M.M., Koskinas, J., Epstein, A.L., Mavromara, P. (2010). Novel

tumour-specific promoters for transcriptional targeting of hepatocellular carcinoma by herpes simplex virus vectors. **J. Gene Med.** 12(12), 956-967. (IF₂₀₁₀:3.080)

17. Foka, P., Singh, N.N., Salter, R.C., Ramji, D.P. (2009). The tumour necrosis factor- α -mediated suppression of the CCAAT/enhancer binding protein- α gene transcription in hepatocytes involves inhibition of autoregulation. **Int. J. Biochem. Cell Biol.** 41(5), 1189-97. (IF₂₀₀₉:4.890)

18. Ramji, D.P., Singh, N.N., Foka, P., Irvine, S.A., Arnaoutakis, K. (2006). Transforming growth factor- β -regulated expression of genes in macrophages implicated in the control of cholesterol homeostasis. **Biochem. Soc. Trans.** 34(6), 1141-1144. (IF₂₀₀₆:2.960)

19. Monslow, J, Williams, J.D., Fraser, D.J., Michael, D.R., Foka, P., Kift-Morgan, A.P., Luo, D.D., Fielding, C.A., Craig, K.J., Topley, N., Jones, S.A., Ramji, D.P., Bowen, T. (2006). Sp1 and Sp3 mediate constitutive transcription of the human hyaluronan synthase 2 gene. **J. Biol Chem.**, 281(26), 18043-18050. (IF₂₀₀₆:5.810)

20. Irvine*, S.A., Foka*, P., Rogers, S.A., Mead, J.R., Ramji, D.P. (2005). A critical role for the Sp1 binding sites in the transforming growth factor- β -mediated inhibition of lipoprotein lipase gene expression in macrophages. **Nucleic acids Res.** 33 (5), 1423-1434. (* Joint First Author). (IF₂₀₀₅:7.550)

21. Lavignac, N., Lazenby, M., Foka, P., Malgesini, B., Verpilio, I., Ferruti, P., Duncan, R. (2004). Synthesis and endosomolytic properties of Poly(amidoamine) Block Copolymers. **Macromol. Bioscience**, 4, 922-929. (IF₂₀₀₄:1.549)

22. Foka, P., Irvine, S.A., Kockar, F., Ramji, D.P. (2003). Interleukin-6 represses the transcription of the CCAAT/enhancer binding protein- α gene in hepatoma cells by inhibiting its ability to autoactivate the proximal promoter region. **Nucleic Acids Res.** 31(23), 6722-6732. 7. (IF₂₀₀₃:6.575)

23. Ramji, D.P., Foka, P. (2002). CCAAT/Enhancer Binding Proteins: Structure, Function and Regulation. **Biochem. J.**, 365(3), 561-75. (Chosen as Cover Page). (IF₂₀₀₂:4.590)

24. Foka, P., Kousteni, S., Ramji, D.P. (2001). Molecular characterization of the *Xenopus* CCAAT-enhancer binding protein beta gene promoter. **Biochem. Biophys. Res. Commun.**, 285(2), 430-6. (IF₂₀₀₁:2.946)

25. Kockar, F.T., Foka, P., Hughes, T.R., Kousteni, S., Ramji, D.P. (2001). Analysis of the *Xenopus Laevis* CCAAT-enhancer binding protein α gene promoter demonstrates species-specific differences in the mechanisms for both auto-activation and regulation by Sp1. **Nucleic Acids Res.**, 29(2), 1-11. (IF₂₀₀₁:6.373)

26. Tengku-Muhammad, T.S., Hughes, T.R., Foka, P., Cryer, A., Ramji, D.P. (2000). Cytokine-mediated differential regulation of macrophage activator protein-1 genes. **Cytokine**, 12(6), 720-726. (IF₂₀₀₀:2.490)

27. Mastronicolis, S.K., German, J.B., Megoulas, N., Petrou, E., Foka, P., Smith, G.M. (1998). Influence of cold shock on the fatty-acid composition of different lipid classes of the food-borne pathogen *Listeria Monocytogenes*. **Food Microbiol.**, 15(3), 299-306. (IF₁₉₉₈:1.076)