

Curriculum Vitae

Martina Samiotaki, PhD

Date and Place of Birth	Stockholm, Sweden, 6 th of February 1967
Citizenship	Swedish and Greek
Working Address	B.S.R.C. "Alexander Fleming" P.O. Box 74145 16602, Varkiza Greece
Languages	Swedish, Greek, English, French
E-mail	samiotaki@fleming.gr
Telephone Number	+30 (210) 9656310 (152)

EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
University of Uppsala	B.Sc.	1991	Microbiology
University of Uppsala	PhD.	1996	Human Medical Genetics
Hellenic Pasteur Institute	Postdoctoral Fellow	1996-1997	Phage-display expression of human antibody fragments against the muscle acetylcholine receptor.
"St. Savvas" Anti-Cancer Hospital	Postdoctoral Fellow	1997-2000	Mammalian mRNA poly(A)-tails. Formation, removal and function.

Positions and Employment

2000 - 2007. Senior Research Scientist, B.S.R.C. "Alexander Fleming".

2007 - 2012. Operational Scientist C', B.S.R.C. "Alexander Fleming", *Macromolecular Analysis Laboratory*.

2012 - Present. Operational Scientist B', B.S.R.C. "Alexander Fleming", *Macromolecular Analysis Laboratory*.

Responsibilities in the mass-spectrometry core facility at Fleming:

- *Proteomics: protein identification, post-translation modification discovery, proteomic profiling, differential mass-spectrometry.*
- *Quantitative Proteomics.*

- *Lipid Analysis: LC-MS identification and quantification of lipids.*
- *Quantification of drugs in human tissues.*
- *Lab Quality Assurance (ISO 9001:2000)*

Honors and Awards

Swedish Medical Research Council Postdoctoral Fellowship (1996-1997).

Teaching/Training/Supervision

Student guidance during thesis/practical research work.

Training of students and collaborators in proteomic technologies.

Active organization of school visits to the research center.

Associations

Hellenic Proteomics Society.

Hellenic Mass Spectrometry Society.

Peer-reviewed publications.

1. Parik J., Kwiatkowski M., Lagerkvist A., Lagerstrom M., **Samiotaki M.**, Stewart J., Glad G., Mendel-Hartvig M, Landegren U. *Anal Biochem.* Vol. 211, 144-150. 1993.
2. **Samiotaki M.**, Kwiatkowski M., Parik J., Landegren U. Dual color detection of DNA sequence variants through ligase-mediated analysis. *Genomics*, Vol. 20, 238-242. 1994.
3. Kwiatkowski M., **Samiotaki M.**, Lamminmaki U., Mukkala V., Landegren U. Solid-phase synthesis of chelate-labelled oligonucleotides: application in triple-color ligase mediated gene analysis. *Nucleic Acids Research*, Vol. 22, 2604-2611. 1994.
4. Nilsson M., Malmgren H., **Samiotaki M.**, Kwiatkowski M., Chowdary B., Landegren U. Padlock probes: Circularizing oligonucleotides for localized DNA detection. *Science*, Vol. 265. 2085-2088. 1994.
5. Landegren U., **Samiotaki M.**, Nilsson M., Malmgren H., Kwiatkowski M. Detecting genes with ligases. *Methods: a companion to Methods in Enzymology*, 9, 84-90. 1996.
6. **Samiotaki M.**, Kwiatkowski M, Ylitalo N, Landegren U. Seven-color time-resolved fluorescence hybridization analysis of human papilloma virus types. *Analytical Biochemistry*, Vol. 253(2):156-61.1997.
7. Hagberg A, Barbany G, Krook H, **Samiotaki M.**, Landegren U. Expression profiling across many samples via manifold-assisted mRNA processing. *Nucleic Acids Res.* 1;28(11):E54. 2000.

8. **Samiotaki M**, Balatsos NA, Curtis N, Tsiapalis CM. Assignment of the 100-kDa subunit of cleavage and polyadenylation specificity factor (CPSF2) to human chromosome 14q31.3 by radiation hybrid mapping. *Cytogenet Cell Genet.* 90(3-4):328-9. 2000.
9. **Samiotaki M**, Balatsos NA, Curtis N, Tsiapalis CM. Assignment of the 160-kDa subunit of cleavage and polyadenylation specificity factor (CPSF1) to human chromosome 8q24.23 by radiation hybrid mapping. *Cytogenet Cell Genet.* 90(3-4):234-5. 2000.
10. Ioannidis P, Trangas T, Dimitriadis E, **Samiotaki M**, Kyriazoglou I, Tsiapalis CM, Kittas C, Agnantis N, Nielsen FC, Nielsen J, Christiansen J, Pandis N. C-MYC and IGF-II mRNA-binding protein (CRD-BP/IMP-1) in benign and malignant mesenchymal tumors. *Int J Cancer.* Nov15; 94(4):480-4. 2001.
11. Zamanou A, **Samiotaki M**, Panayotou G, Margaritis L, Lymberi P. Fine specificity and subclasses of IgG anti-actin autoantibodies differ in health and disease. *Journal of Autoimmunity.* 20(4):333-44. 2003.
12. M. Vardakou, P. Katapodis, **M. Samiotaki**, D. Kekos, G. Panayotou, P. Christakopoulos. Mode of action of family 10 and 11 endoxylanases on water-unextractable arabinoxylan. *The International Journal of Biological Macromolecules.* 33: 129-134. 2003.
13. Sidera K, **Samiotaki M**, Yfanti E, Panayotou G, Patsavoudi E. Involvement of cell surface HSP90 in cell migration reveals a novel role in the developing nervous system. *J Biol Chem.* 279(44):45379-88. 2004.
14. Vynios DH, Tsagaraki I, Grigoreas GH, **Samiotaki M**, Panayotou G, Kyriakopoulou D, Georgiou P, Korbakis D, Panayotou A, Nanouri K, Assouti M, Andonopoulos AP. Autoantibodies against aggrecan in systemic rheumatic diseases. *Biochimie.* 88(7):767-73. 2006.
15. Mylonis I, Chachami G, **Samiotaki M**, Panayotou G, Paraskeva E, Kalousi A, Georgatsou E, Bonanou S, Simos G. Identification of MAPK phosphorylation sites and their role in the localization and activity of hypoxia-inducible factor-1alpha. *J Biol Chem.* 281(44):33095-106. 2006.
16. Lindtner S, Zolotukhin AS, Uranishi H, Bear J, Kulkarni V, Smulevitch S, **Samiotaki M**, Panayotou G, Felber BK, Pavlakis GN. RNA-binding Motif Protein 15 Binds to the RNA Transport Element RTE and Provides a Direct Link to the NXF1 Export Pathway. *J Biol Chem.* 281(48):36915-28. 2006.
17. Tsoupras AB, Antonopoulou S, Baltas G, **Samiotaki M**, Panayotou G, Kotsifaki H, Mantzavinos Z, Demopoulos CA. Isolation and identification of hydroxyl-platelet-activating factor from natural sources. *Life Sci.* 79(19):1796-803. 2006.
18. E. A. Stea, J. G. Routsias, **M. Samiotaki**, G. Panayotou, E. Papalambros, H. M. Moutsopoulos and A. G. Tzioufas. Analysis of parotid glands of primary Sjogrens syndrome patients using proteomic technology reveals altered autoantigen composition and novel antigenic targets. *Clinical & Experimental Immunology*, 147, Issue 1. 81-99. 2007.
19. Fragopoulou E., Nomikos T., Karantonis C.H., Apostolakis C., Pliakis E., **Samiotaki M.**, Panayotou G., Antonopoulou S. Biological Activity of Acetylated Phenolic Compounds. *J Agric Food Chem.* 55(1):80-9. 2007.
20. D. Tsimogiannis, **M. Samiotaki**, G. Panayotou, V. Oreopoulou. Characterization of flavonoid subgroup and hydroxy substitution with HPLC-MS/MS. *Molecules.* 593-606. 2007

21. Karantonis C.H., Tsantila N., Stamatakis G., **Samiotaki M.**, Panayotou G., Antonopoulou S. and Demopoulos CA. Bioactive polar lipids in olive oil, pomace and waste byproducts. *Journal of Food Biochemistry*, Vol 32, Issue 4, p443-459. 2007.
22. Fragopoulou E, Nomikos T, Karantonis HC, Apostolakis C, Pliakis E, **Samiotaki M**, Panayotou G, Antonopoulou S. Biological activity of acetylated phenolic compounds. *J Agric Food Chem*. 10;55(1):80-9. 2007.
23. Petroutsos D., Katapodis P., **Samiotaki M.**, Panayotou G. & Kekos D. Detoxification of 2,4-dichlorophenol by the marine microalga *Tetraselmis marina*. *Phytochemistry*. 69(3):707-14. 2008.
24. Koliarakis V, Marinou M, **Samiotaki M**, Panayotou G, Pantopoulos K, Mamalaki A. Iron regulatory and bactericidal properties of human recombinant hepcidin expressed in *Pichia pastoris*. *Biochimie*. 90(5):726-35. 2008.
25. Sikara MP, Routsias JG, **Samiotaki M**, Panayotou G, Moutsopoulos HM, Vlachoyiannopoulos PG. β_2 glycoprotein I (β_2 GPI) binds platelet factor 4 (PF4): implications for the pathogenesis of antiphospholipid syndrome. *Blood*. 115, 713-723. 2009.
26. Stamatakis G, Tsantila N, **Samiotaki M**, Panayotou GN, Dimopoulos AC, Halvadakis CP, Demopoulos CA. Detection and Isolation of Antiatherogenic and Antioxidant Substances Present in Olive Mill Wastes by a Novel Filtration System. *J Agric Food Chem*. 2009.
27. Ikononou, G., **Samiotaki, M.** and Panayotou G. Proteomic approaches in colon cancer research. *Crit. Rev. Clin. Lab. Sci.* 46(5-6):319-42. 2009. **Review.**
28. Makridakis M, Roubelakis MG, Bitsika V, Dimuccio V , **Samiotaki M**, Kossida S, Panayotou G, Coleman J, Candiano G, Anagnou NP, Vlahou A., "Analysis of secreted proteins for the study of bladder cancer cell aggressiveness. ", *J Proteome Res*. 9(6): 3243-59. 2010.
29. Tsangaridou E, Polioudaki H, Sfakianaki R, **Samiotaki M**, Tzardi M, Koulentaki M, Panayotou G , Kouroumalis E, Castanas E, Theodoropoulos PA. "Differential detection of nuclear envelope autoantibodies in primary biliary cirrhosis using routine and alternative methods", *BMC Gastroenterol*, 10., 28 . 2010.
30. Rapti A, Trangas T, **Samiotaki M** , Ioannidis P, Dimitriadis E, Meristoudis C, Veletza S, Curtis N. "The structure of the 5'-untranslated region of mammalian poly(A) polymerase- α mRNA suggests a mechanism of translational regulation .", *Mol Cell Biochem*. 2010 Jul;340(1-2):91-6. 2010.
31. Parapouli M, Fragkos-Livanios L, **Samiotaki M**, Koukkou A, Perisynakis A, Hatziloukas E, Panayotou G, Drainas C., "Comparative proteomic analysis of alcoholic fermentation employing a new environmental strain of *Saccharomyces cerevisiae* ." *Process Biochemistry*. 45: 1094-1102. 2010.
32. Cotsiki M, Oehrl W, **Samiotaki M**, Theodosiou A, Panayotou G. "Phosphorylation of the M3/6 dual-specificity phosphatase enhances the activation of JNK by arsenite." *Cell Signalling*. 24(3): 664-76. 2011.
33. Chatzovoulos P, Tsoupras AB, **Samiotaki M**, Panayotou G, Demopoulos C.A., Dotsika A. "PAF-metabolic enzymes and PAF-like activity in *L. Infantum* and *L. Major* promastigotes". *European Journal of Inflammation* 9 (3): 231-239. 2011.
34. Mpakali A, Kotini A, Spella M, Kouyialis M, Tserga A, Fragkos-Livanios L, **Samiotaki M**, Agaloti T. "p68/Ddx5 RNA helicase interacts and colocalizes *in vivo* with the *de novo* DNA methyltransferases Dnmt3a1 and Dnmt3a2." *Journal of Proteomics and Bioinformatics* 5(1): 007-014. 2012.

35. Irini Evnouchidou, James Birtley, Sergey Seregin, Athanasios Papakyriakou, Thalia Zervoudi, **Martina Samiotaki**, George Panayotou, Olivia Petrakis, Dimitris Georgiadis, Andrea Amalfitano, Emmanuel Saridakis, Irine Mavridis and Efstratios Stratikos "A common SNP in ER aminopeptidase 2 induces a specificity switch that leads to altered antigen processing". *J Immunol.* 189(5):2383-92. 2012.
36. Ikononou G, Vassiliki Kostourou V, Shirasawa S, Sasazuki T, **Samiotaki M**, Panayotou G. Interplay between oncogenic K-Ras and wild-type H-Ras in Caco2 cell transformation. *J Proteomics.* 75(17):5356-69. 2012.
37. Alexandratos A, Clos J, **Samiotaki M**, Efstathiou A, Panayotou G, Soteriadou K, Smirlis D. "The loss of virulence of histone H1 overexpressing Leishmania donovani parasites is directly associated with a reduction of HSP83 rate of translation." *Mol Microbiol.* 88(5):1015-31. 2013.
38. Ioanna Nikitopoulou, Eleanna Kaffe, Ioanna Sevastou, Ivi Sirioti, **Martina Samiotaki**, Damian Madan, Glenn D Prestwich, Vassilis Aidinis. "A metabolically-stabilized phosphonate analog of lysophosphatidic acid attenuates collagen-induced arthritis". *PLoS One 8 (7): e70941.* 2013
39. Vandera E, **Samiotaki M.**, Parapouli M., Panayotou G., Koukkou A. "Comparative proteomic analysis of Arthrobacter phenanthrenivorans Sphe3 on different substrates". Submitted to *Journal of Proteomics.*

Thesis Title

Samiotaki M. DNA Detection through oligonucleotide ligation and time-resolved fluorescence. Comprehensive summaries of Uppsala dissertations from the faculty of medicine 588. Acta Universitatis Upsaliensis. 1996.

Book Chapters

Landegren U., **Samiotaki M.**, Kwiatkowski M. Ligase mediated gene detection. *Encyclopedia of molecular biology: fundamentals and applications.* Ed. R. A. Meyers, VCH Publishers, Weinheim, 3, p. 391-399. 1995.

Samiotaki M., Kwiatkowski M. and Landegren U. OLA-dual color oligonucleotide ligation assay. In "*Laboratory protocols for mutation detection*". Ed. U. Landegren, Oxford University Press, Oxford. P 96-100. 1996.

Landegren U., **Samiotaki M.**, Kwiatkowski M., Parik J., Nilsson M., Hagberg A., Barbany G. DNA detection and sequence distinction through oligonucleotide ligation. *Mutation Detection: A Practical Approach (Practical Approach Series, No 188, Irl Pr).* Ed. Richard G. H. Cotton. 1998.

Selected Acknowledged Work

Tsoupras, A. B., Demopoulos, C. A. and Pappas, K. M. (2012), Platelet-activating factor detection, metabolism, and inhibitors in the ethanologenic bacterium *Zymomonas mobilis*. ***Eur. J. Lipid Sci. Technol.***, 114: 123–133. 2012.

Karkali K, Panayotou G. "The Drosophila DUSP Puckered is phosphorylated by JNK and p38 in response to arsenite-induced oxidative stress." ***Biochem Biophys Res Commun.*** 2012 Jan 12.

Gkiafi Z, Panayotou G. "Comparative Proteomic Analysis Implicates COMMD Proteins as Epstein-Barr Virus Targets in the BL41 Burkitt's Lymphoma Cell Line.", *J Proteome Res.*, 2011.

Spanaki C, Zaganas I, Kleopa KA, Plaitakis A." Human GLUD2 glutamate dehydrogenase is expressed in neural and testicular supporting cells." *J Biol Chem.* 285(22):16748-56. 2010.

Prinarakis E, Chantzoura E, Thanos D, Spyrou G. "S-glutathionylation of IRF3 regulates IRF3-CBP interaction and activation of the IFN beta pathway". *EMBO J.* 27(6):865-75. 2008.

M. Mavroidis, P. Panagopoulou, I. Kostavasili, N. Weisleder and Y. Capetanaki. "A missense mutation in desmin tail domain linked to human dilated cardiomyopathy promotes cleavage of the head domain and abolishes its Z-disc localization". *The FASEB Journal.* 22:3318-3327. 2008.

Skopeliti M, Kratzer U, Altenberend F, Panayotou G, Kalbacher H, Stevanovic S, Voelter W, Tsitsilonis OE., "Proteomic exploitation on prothymosin alpha-induced mononuclear cell activation.", *Proteomics*, 7, 1814-1824. 2007.

Saridaki A, Panayotou G., 2005. Identification of growth factor-regulated proteins using 2D electrophoresis and mass spectrometry. *Growth Factors*, 23(3):223-32. 2005.

Conferences and Workshops

1st Nordic Genome Workshop, Visby, Gotland, Sweden. May 1991. Poster presentation.

International Symposium on Diagnosis of Sexually Transmitted Diseases, Uppsala, Sweden. August 1991. Poster presentation.

2nd Nordic Genome Workshop (HUGO), Oslo, Norway. May 1992. Oral presentation.

15th Annual Conference on the Organization and Expression of the Genome, Lorne Victoria, Australia. 15-19 February 1993. Oral presentation.

FEBS, Stockholm, Sweden. 4th -9th July 1993. Poster presentation.

17th International Congress of Genetics, Birmingham, United Kingdom. 15-21 August 1993. Poster presentation.

New Horizons in Gene Amplification Technologies: New Techniques and Applications. San Francisco, California, USA. 8-10 June 1994. Poster presentation.

Mutation Detection 1995. FEBS Lecture Course. Wisby, Gottland, Sweden. 18-21 May 1995. Poster presentation. Co-Organizer.

6th European Biosymposium, Biomolecular Interaction Analysis. Montpellier, France. 21-23 October 1996.

1st TMR network regular meeting on mammalian mRNA poly(A)-tails. Formation, removal and function. Athens. 23-25 January 1998. Oral presentation. Co-Organizer.

2nd TMR network regular meeting on mammalian mRNA poly(A)-tails. Formation, removal and function. Halle-Wittenberg, Germany. 12-14 March 1999. Oral presentation.

3rd TMR network regular meeting on mammalian mRNA poly(A)-tails. Formation, removal and function. Uppsala, Sweden. 18-20 February 2000. Oral presentation.

14th Meeting: Methods of Protein Structure Analysis. Valencia, Spain. September 8th-12th, 2002.

13th PAGE Meeting (Population Analysis Group in Europe) Uppsala, Sweden. June 17th -18th, 2004. Poster Presentation. "The cytochrome P450 3A1 variant genotype shows correlation with the true clearance in a renal transplant population"

1st International Conference of the Hellenic Proteomics Society, Athens. Greece 22- 25th May, 2005.

Desorption 2006, Athens, Greece, 3rd -7th September, 2006. Poster Presentation.

2nd Conference of the Hellenic Proteomics Society, Crete, Chania, Greece 23-25th May, 2007. Poster Presentation.

Invited speaker/lecturer at different greek meetings/courses for students and medical professionals.

HelMass (Hellenic Mass Spectrometry Society), 1st meeting, Athens, Greece, April 17th -18th. 2008.

33rd FEBS Congress & 11th IUBMB Conference, Athens, Greece, June 28th -July 3rd, 2008.

3rd EuPa Congress, Clinical Proteomics, Stockholm, Sweden. 14th-17th June, 2009.

Waters Technology Summit Meeting "The Future of MS Technologies in Life Science Research", Manchester, UK. 6th -7th October. 2009.

Quantitative Proteomics Seminar and practical workshop "High resolution nanoLC peptide mapping", IMP/IMBA Vienna, Austria. 12th-13th October 2009.

1st International Proteomics Conference on Crete - IPCC01. Crete, Greece. 7th-8th October 2010.

1st Greek Orbitrap User Meeting. Crete, Greece. 9th October 2010. Oral Presentation.

3rd Summer school on computational mass spectrometry-based proteomics (MaxQuant Summer School). Max Planck Institute of Biochemistry, Martinsried, Germany. 22nd-27th May 2011.

Workshop on Functional and Structural Proteomics, Hellenic Pasteur Institute, Athens. Oral Presentation. 6th -7th October 2011. Co-Organizer. Oral presentation.

Athens proteomics - metabolomics workshop. Hellenic Pasteur Institute. Athens, 19th of April, 2012.

2nd Greek Orbitrap User Meeting. Crete, Greece. 23th-24th April 2012. Oral Presentation.

1st Conference of Pharmaceutical Sciences, Athens, Greece. 27th-30th April 2012. Oral Presentation.

4th Summer school on computational mass spectrometry-based proteomics (MaxQuant Summer School). Max Planck Institute of Biochemistry, Martinsried, Germany. 17th-22nd June 2012.

POM General assembly meeting, 26th October 2012, BRFAA, Athens, Greece.

63rd Panhellenic Congress of Hellenic Association of Biochemistry & Molecular Biology. 09 - 11 November 2012. Heraklio, Crete, Greece.

TRANSMED meeting on biomarker discovery 10th May, BRFAA, Athens, Greece. Oral presentation.

3rd SEE-DRUG Workshop: Emerging analytic techniques in protein characterization. Patras, Greece, 19th-20th September 2013. Invited speaker.

5th International BBBB conference. Athens, Greece, 26th-28th September 2013. Invited moderator.

3rd Greek Orbitrap User Meeting. Athens, Greece 13th of February 2014. Organizer.

Additional Training

International BMC Summer School: "Sexually Transmitted Diseases". University of Uppsala, Sweden. 1991.

Seminar in Pedagogy, University of Uppsala, Sweden. 1991.

1991-1996: Specialized training during PhD:

- Oncogenes and the Molecular Origins of Cancer
- Molecular Evolution
- Molecular Immunology
- Antibody Engineering

1991-1995: Seminar serie: "Structural and Functional Aspects of Molecular and Cellular Biology". Biomedical Center, Uppsala University, Sweden.

Bia basic and kinetic analyses with Biacore (optical Biosensor). Pharmacia, Uppsala, Sweden. 1996.

Additional

Participation in international proteomic studies organized by ABRF:

- *iPRG2012 Study: Detecting Modified Peptides in a Complex Mixture*
- *PRG 2012 LC-MS/MS Quality Control Study*
- *sPRG2013 Study: Relative quantitation of up to 1000 heavy/light pairs in a single sample. In progress...*

Expert in Proteomics for the purposes of the "BioAsq" Challenges.

