

ARETI STRATI

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DEGREES

Ph.D. in Clinical Chemistry Faculty of Chemistry, University of Athens, Greece Degree: Excellent	2010
MSc in Clinical Chemistry Faculty of Chemistry, University of Athens, Greece Degree: Excellent	2007
B.S. in Chemistry Faculty of Chemistry, University of Athens, Greece. Degree: Very Good	2004
High school of Megalopolis, Greece Degree: Very Good	1997

RESEARCH-EDUCATION

Faculty of Chemistry at National and Kapodistrian University of Athens Postdoc in molecular characterization of CTC Liquid biopsy: In vivo capturing and molecular characterization of circulating tumor cells as a novel tool for improving tertiary prevention in breast cancer Laboratory of Clinical Chemistry, Faculty of Chemistry Group leader: Evi Lianidou, Ph.D.	March 2014-May 2015
Faculty of Chemistry at National and Kapodistrian University of Athens Postdoc in molecular characterization of CTC	
• Comparison of CTC detection methods	Jan 2010-May 2011
• Development of multiplex RT-qPCR assay for the detection of breast cancer markers in CTC	Jun 2011-Feb 2014
Laboratory of Clinical Chemistry, Faculty of Chemistry Group leader: Evi Lianidou, Ph.D.	
Faculty of Chemistry at National and Kapodistrian University of Athens Ph.D. in analysis of circulating tumor cells	2007-2010
Dissertation: "Development and Validation of multiplex RT-qPCR methodologies for the molecular characterization of Circulating Tumor Cells in breast cancer" Dissertations Advisor: Evi Lianidou, Ph.D.	
Faculty of Chemistry at National and Kapodistrian University of Athens MSc in Clinical Chemistry	Sep. 2005-Nov.2006
Master's Thesis: "Study of the expression of human telomerase reverse transcriptase (hTERT) splice variants in non-small cell lung cancer (NSCLC) and in MCF-7 cells in the presence of estrogenic/antiestrogenic agents by quantitative real time PCR". Advisor: Evi Lianidou, Ph.D.	
University of Athens at National and Kapodistrian University of Athens	

B.S. in Faculty of Chemistry **1999-2004**
 Undergraduate Diploma thesis: “Detection of Stanazolol and Budesonide in the Urine of athletes with GC-MS during the Olympic Games, Athens 2004” in Doping Control Laboratory of the Athens Olympic stadium.
 Advisor: Panagiotis Siskos, Ph.D.

FELLOWSHIPS AND AWARDS

Award for poster presentation, 2013 AACR-GlaxoSmithKline Outstanding Clinical Scholar Award in the AACR Annual Meeting 2013. **6-10 April 2013**

Award for poster presentation 1stAdvances in Circulating Tumour Cells (ACTC) from Basic Research to Clinical Practice, Athens, Greece **26-29 Sept. 2012**

Avon foundation International Travel Grant, in the 99th American Association for Cancer Research, San Diego, U.S.A **12-16 April 2008**

First award for poster presentation, 3th Annual Greek Cancer Conference, Athens **26-29 April 2007**

TEACHING EXPERIENCE

Hotel Stratos Vassilikos **12-13 June 2015**
 Master class on tumor Biomarkers
 Lecture 1: Methodologies for the isolation of CTC
 Lecture 2: Molecular heterogeneity of CTC

Faculty of Biology at National and Kapodistrian University of Athens **2011-2015**
 Teaching in Postgraduate Program Study clinical biochemistry - molecular diagnostics
 Course: Clinical Chemistry, Title of lecture: “Internal and external quality control in Clinical Laboratory. Biochemical analysts - Automation in Clinical Laboratory”
 Course administrator: Fragoulis GE

Department of Medical Oncology, Laboratory of Cancer Cell Biology at University of Crete **13-18 Oct. 2014**
 Workshop for Medical, Surgical or Radiation Oncologists, Pathologists and Basic Scientists

Faculty of Chemistry at National and Kapodistrian University of Athens **4 December 2012**
 Teaching in Postgraduate Program Clinical Chemistry
 Title of lecture: “In-silico design of oligonucleotides primers and probes using Primer Premier 5.0 software.”
 Course administrator: Evi Lianidou, Ph.D.

9th Hellenic Congress of Clinical Chemistry, Athens, Greece. **7-9 October 2010**
 Demonstration of instruments of real time PCR, HRMA and instruments for the quantification of DNA and RNA in Clinical Tutorial

Faculty of Chemistry at National and Kapodistrian University of Athens **2009**
 Assistant supervisor of undergraduate Diploma Thesis
 Diploma Thesis: “Expression study of human telomerase reverse transcriptase (hTERT) splice variants by RT-PCR in cervical cancer”
 Students: Tsoukala Maria and Farkona Sofia
 Supervisor: Evi Lianidou, Ph.D.

Faculty of Chemistry at National and Kapodistrian University of Athens

Assistant supervisor of undergraduate Diploma Thesis 2008
 Diploma Thesis: “Expression study of human telomerase reverse transcriptase (hTERT) by RT-PCR in hepatitis C”
 Students: Dimitrakopoulos Lambros and Beredaki Maria-Ioanna
 Supervisor: : Evi Lianidou, Ph.D.

Faculty of Chemistry at National and Kapodistrian University of Athens
 Teaching Assistant, Laboratory of Analytical Chemistry 2006
 Training of Undergraduate students in Clinical Chemistry

Faculty of Chemistry at National and Kapodistrian University of Athens
Teaching Assistant, Laboratory of Analytical Chemistry 2005
 Training of Undergraduate students in Instrumental Analysis

LABORATORY EXPERIENCE

Molecular diagnostics: Peripheral Blood Mononuclear Cells isolation, Circulating Tumor Cells isolation, DNA and RNA Isolation, mRNA purification, In silico design of oligonucleotides, PCR development, multiplex quantitative real time PCR development, DNA methylation, gel electrophoresis

PEER-REVIEWED PUBLICATIONS IN SCIENTIFIC JOURNALS

1. **Areti Strati**, George Koutsodontis, Ilias Angelidis, Clarence Sasaki, Margaritis Avgeris, Evi Lianidou, Amanda Psyrris. PD-L1 expressing circulating tumor cells (CTCs) in patients with head and neck squamous cell carcinoma (HNSCC). *Cancer Discov.* Submitted
2. Lianidou ES, **Strati A**, Markou A. Circulating tumor cells as promising novel biomarkers in solid cancers. *Crit Rev Clin Lab Sci.* 2014 Jun;51(3):160-71.
3. **A. Strati**, S. Kasimir-Bauer, A. Markou, K. Parisi, E.S. Lianidou. Comparison of three molecular assays for the detection of circulating tumor cells in breast cancer. *Breast Cancer Res.* 2013 Mar 7;15(2):R20.
4. Chimonidou M*, **Strati A***, Malamos N, Georgoulas V, Lianidou ES. SOX17 Promoter Methylation in Circulating Tumor Cells and Matched Cell-Free DNA Isolated from Plasma of Patients with Breast Cancer. *Clin Chem.* 2013 Jan;59(1):270-9. *: **These authors contributed equally to this work.**
5. Chimonidou M, Tzitzira A, **Strati A**, Sotiropoulou G, Sfikas C, Malamos N, Georgoulas V, Lianidou E. CST6 promoter methylation in circulating cell-free DNA of breast cancer patients *Clin Biochem.* 2013 Feb;46(3):235-40.
6. Lianidou ES, Markou A, **Strati A**. Molecular characterization of circulating tumor cells in breast cancer: challenges and promises for individualized cancer treatment. *Cancer Metastasis Rev.* 2012 Dec;31(3-4):663-71.
7. **Strati A**, Markou A, Parisi C, Politaki E, Mavroudis D, Georgoulas V, Lianidou E. Gene expression profile of circulating tumor cells in breast cancer by RT-qPCR. *BMC Cancer.* 2011 Oct 4;11(1):422.
8. M. Chimonidou*, **A. Strati***, A. Tzitzira, G. Sotiropoulou, N. Malamos, V. Georgoulas and E. S. Lianidou. DNA methylation of Tumor Suppressor and Metastasis Suppressor Genes in Circulating Tumor Cells. *Clin Chem.* 2011 Aug;57(8):1169-77. *: **These authors contributed equally to this work.**
9. A. Markou, **A. Strati**, N. Malamos, V. Georgoulas, and E.S. Lianidou. Molecular characterization of circulating tumor cells in breast cancer by a liquid bead array hybridization assay. *Clin Chem.* 2011 Mar;57(3):421-30.
10. Varchalama E, Rodolakis A, **Strati A**, Papageorgiou T, Valavanis C, Vorgias G, Lianidou E, Antsaklis A. Quantitative analysis of heparanase gene expression in normal cervical, cervical intraepithelial neoplastic, and cervical carcinoma tissues. *Int J Gynecol Cancer.* 2009 Dec;19(9):1614-9. **E.V. and A.S. contributed equally to this study.**
11. Kallergi G, Markomanolaki H, Giannoukaraki V, Papadaki MA, **Strati A**, Lianidou ES, Georgoulas V, Mavroudis D, Agelaki S. Hypoxia-inducible factor-1alpha and vascular endothelial growth factor expression in circulating tumor cells of breast cancer patients. *Breast Cancer Res.* 2009;11(6):R84.
12. **A. Strati**, Z. Papoutsis, E. Lianidou, P. Moutsatsou. Effect of ellagic acid on the expression of human telomerase reverse transcriptase (hTERT) alpha+beta+ transcript in estrogen receptor-positive MCF-7

- breast cancer cells. Clin Biochem. 2009 Sep;42(13-14):1358-62.
13. E. Mavrogiannou, **A. Strati**, A. Stathopoulou, E.G. Tsaroucha, L. Kaklamanis, E.S. Lianidou. Real time RT-PCR quantification of human telomerase reverse transcriptase (hTERT) splice variants in tumor cell lines and non small cell lung cancer. Clinical Chemistry 2007 Jan;53(1):53-61.

PRESENTATIONS IN SCIENTIFIC CONFERENCES

A. Oral Presentations

1. **A.Strati**. “Development and validation of a realtime multiplex PCR assay for the simultaneous quantification of ER, PR, HER2 and EGFR in circulating tumor cells of breast cancer patients”, 12th Hellenic Congress of Clinical Chemistry, 7-8 Nov. 2014, Athens, Greece **and**”, 22th Conference of Clinical Oncology, 13-16 Nov. 2014, Heraklion, Greece
2. **A.Strati** “SOX17 promoter methylation in circulating tumor cells and matched cellfree DNA and primary tumor in patients with breast cancer”, 12th Hellenic Congress of Clinical Chemistry, 7-8 Nov. 2014, Athens, Greece.
3. **A.Strati**. “Comparison of three molecular assays for the detection of circulating tumor cells in breast cancer”, 20th Conference of Clinical Oncology, 1-3 Nov. 2012, Heraklion, Greece.
4. **A.Strati**. . “Molecular characterization of circulating tumor cells with RT qPCR”, 19th Conference of Clinical Oncology, 27-29 Oct. 2011, Heraklion, Greece.
5. **A. Strati**. “Expression of TWIST1 and CK19 transcripts in circulating tumor cells of breast cancer patients”, 9th Hellenic Congress of Clinical Chemistry, 7-9 Oct. 2010, Athens, Greece.
6. **A. Strati**. “Development and validation of a real time multiplex PCR assay for the simultaneous quantification of CK19, MAGEA3, HER2 and PBGD in circulating tumor cells of breast cancer patients”, 17th Conference of Clinical Oncology, 4-8 Nov. 2009, Heraklion, Greece, 7th International Symposium on Minimal Residual Cancer, 16-19 Sep. 2009, Athens, Greece.
7. **A. Strati**. “Evaluation of Real time PCR Quantification kit for Cytokeratin 19 (CK19): Application for the detection of circulating tumor cells (CTCs) in peripheral blood of early breast cancer patients”, XVI Meeting of Balkan Clinical Laboratory Federation 7th Hellenic Congress of Clinical Chemistry, 16-18 Oct. 2008, Athens, Greece.
8. **A. Strati**. “Real time RTPCR quantification of human telomerase reverse transcriptase (hTERT) splice variants in non small cell lung cancer (NSCLC)” 98th American Association for Cancer Research, 1418 Apr. 2007, Los Angeles, California, 14th Conference of Clinical Oncology, 25-28 Oct. 2006, Heraklion, Crete, Greece.

B. Poster Presentations

1. Areti Strati, Athina Markou, Aliko Stathopoulou, Stella Apostolaki, Dimitris Mavroudis, Vasilis Georgoulis, Evi S. Lianidou. Analytical and clinical validation of an EpCAM-independent assay for CTC detection in peripheral blood of early breast cancer patients based on Cytokeratin-19 (CK-19) RT-qPCR. AACR, 18-22 April 2015, Pennsylvania
2. S. Hubold, I.F. Loncarevic, S. Hauch, L. Plappert, D. Schellbach, A. Markou, **A. Strati**, J. Rasch, U. Kirsch, A.Hanssen, H. Wikman, T. Gorges, E. S. Lianidou, K. Pantel, S.Kasimir-Bauer. “Comparative CTC analysis using the fully automated AlereTM q CTC Breast Detect and the manual AdnaTest BreastCancer Detect assays”. 2nd Advances in Circulating Tumour Cells (ACTC) from Basic Research to Clinical Practice, 8-11 October 2014, Crete, Greece
3. **A. Strati**, V. Georgoulis, E. Lianidou. “Simultaneous quantification of ER, PR, HER-2 and EGFR mRNA transcripts in CTCs by a novel real time multiplex RT-qPCR assay”. 2nd Advances in Circulating Tumour Cells (ACTC) from Basic Research to Clinical Practice, 8-11 October 2014, Crete, Greece
4. G. Koutsodontis, **A. Strati**, E.M. Vagia, A. Giagini, S. Siolos, N. Charalambakis, K. Tsigaridas, G. Kotsantis, P. Economopoulou, V.S. Ramfidis, C. Perisanidis, C. Sasaki, V. Bartzi, A.S. Strimpakos, E. Lianidou, A. Psyrris. “Prognostic significance of circulating cancer cells (CTCs) in head and neck squamous cell carcinoma (HNSCC)”. 2nd Advances in Circulating Tumour Cells (ACTC) from Basic Research to Clinical Practice, 8-11 October 2014, Crete, Greece.
5. **Areti D. Strati**, Evi S. Lianidou. “Development and analytical validation of a novel real-time multiplex RT-qPCR assay for the simultaneous quantification of ER, PR, HER-2 and EGFR mRNA expression in circulating tumor cells of breast cancer patients”. 105 American Association for Cancer Research, Apr. 5 – Apr. 9 2014, San Diego.

6. Maria Chimonidou, **Areti Strati**, Nikos Malamos, Vassilis Georgoulis, Evi Lianidou. "DNA methylation of tumor suppressor and metastasis suppressor genes in primary tumors, circulating tumor cells and cell free DNA in the same breast cancer patients". 105 American Association for Cancer Research, Apr. 5 – Apr. 9 2014, San Diego **and** 2nd Advances in Circulating Tumour Cells (ACTC) from Basic Research to Clinical Practice, 8-11 October 2014, Crete, Greece.
7. **Areti D. Strati**, Vasilis Georgoulis, Evi Lianidou. "Prognostic significance of stem cell and EMT phenotype in Circulating Tumor Cells". 104rd American Association for Cancer Research, Apr. 6 – Apr. 10 2013, Washington DC.
8. Cleo Parisi, Athina Markou, **Areti Strati**, Evi Lianidou. "Development of a multiplexed RT-PCR-coupled liquid bead array assay for the molecular characterization of CTCs". 104rd American Association for Cancer Research, Apr. 6 – Apr. 10 2013, Washington DC.
9. **Areti Strati**, Oliver Hoffmann, Athina Markou, Kleo Parisi, Sabine Kasimir-Bauer, Evi S. Lianidou. "Comparison of three molecular assays for the detection of circulating tumor cells in breast cancer", 1stAdvances in Circulating Tumour Cells (ACTC) from Basic Research to Clinical Practice, 26-29 September 2012, Athens, Greece.
10. Cleo Parisi, Athina Markou, **Areti Strati** and Evi S. Lianidou. "Development of a multiplexed RT-PCR coupled liquid bead array assay for the molecular characterization of CTCs". 1stAdvances in Circulating Tumour Cells (ACTC) from Basic Research to Clinical Practice, 26-29 September 2012, Athens, Greece.
11. Maria Chimonidou, **Areti Strati**, Nikos Malamos, Vasilis Georgoulis, Evi S. Lianidou. "SOX17 promoter methylation in CTC and cell free DNA isolated from plasma of breast cancer patients". 1stAdvances in Circulating Tumour Cells (ACTC) from Basic Research to Clinical Practice, 26-29 September 2012, Athens, Greece.
12. Athina Markou, Ioanna Sourvinou, **Areti Strati**, Nikos Malamos, Vasilis Georgoulis and Evi S. Lianidou. miR-21 expression in Circulating Tumor Cells and matched plasma samples of metastatic breast cancer patients. 1stAdvances in Circulating Tumour Cells (ACTC) from Basic Research to Clinical Practice, 26-29 September 2012, Athens, Greece.
13. **Areti Strati**, Vasilis Georgoulis, Evi S. Lianidou "Multiplex RT-qPCR study on the expression of stem cell markers CD24, CD44, and ALDH1 in Circulating Tumor Cells of breast cancer patients", 103rd American Association for Cancer Research, Mar. 31 – Apr. 4, 2012, Chicago, IL.
14. Maria Chimonidou, **Areti Strati**, Nikos Malamos, Vasilis Georgoulis, Evi S. Lianidou. "SOX17 promoter methylation in CTC and cell free DNA isolated from plasma of breast cancer patients". 103rd American Association for Cancer Research, Mar. 31 – Apr. 4, 2012, Chicago, IL.
15. **A. Strati**, A. Markou, C. Parisi, E. Politaki, D. Mavroudis, V. Georgoulis, E. Lianidou. "Gene expression profile of circulating tumor cells in breast cancer by RT-qPCR". 102th American Association for Cancer Research, 2-6 Apr. 2011, Orlando, Florida.
16. M. Chimonidou, **A. Strati**, A. Tzitzira, G. Sotiropoulou, N. Malamos, V. Georgoulis, E. Lianidou. "DNA methylation of tumor suppressor and metastasis suppressor genes in circulating tumor cells". 102th American Association for Cancer Research, 2-6 Apr. 2011, Orlando, Florida.
17. **A. Strati**, A. Markou, O. Hoffmann, R. Kimmig, E. S. Lianidou, S. Kazimir-Bauer. "CK-19, MAGE-A3, HER-2 and TWIST-1 expression by RT-qPCR in CTCs of primary breast cancer patients after positive immunemagnetic selection using anti-EpCAM and anti-MUC1 magnetic beads". 102th American Association for Cancer Research, 2-6 Apr. 2011, Orlando, Florida.
18. A. Markou, **A. Strati**, N. Malamos, V. Georgoulis, E. S. Lianidou. "Expression of mature miR-21 and let-7a in CTCs of breast cancer patients with verified metastasis". 8th Panhellenic Conference of Clinical Chemistry, 2-4 Oct. 2009, Patra, Greece.
19. A. Tzitzira, **A. Strati**, G. Sotiropoulou, N. Malamos, V. Georgoulis and E. S. Lianidou. "DNA methylation of the tumor suppressor gene CST6 in Circulating Tumor Cells (CTCs) of breast cancer patients" 7th International Symposium on Minimal Residual Cancer, 16-19 Sept. 2009, Athens, Greece.
20. N. Konstantinidou, **A. Strati**, E.G. Tsaroucha, L. Kaklamanis, E.S Lianidou. "Expression of EMT regulators TWIST1, SNAIL and VIMENTIN in non-small cell lung cancer (NSCLC) by quantitative RT-PCR". 7th International Symposium on Minimal Residual Cancer, 16-19 Sept. 2009, Athens, Greece.
21. N. Konstantinidou, **A. Strati**, E. Varhalama, E.S Lianidou. "Expression of EMT regulator TWIST-1 in cervical cancer by quantitative RT-PCR". 7th International Symposium on Minimal Residual Cancer, 16-19 Sept. 2009, Athens, Greece.
22. **A. Strati**, A. Markou, A. Stathopoulou, D. Mavroudis, V. Georgoulis and E. S. Lianidou. "Evaluation of Real time PCR Quantification kit for Cytokeratin 19 (CK-19): Application for the detection of circulating tumor cells (CTCs) in peripheral blood of early breast cancer patients". 100th American Association for Cancer Research, 18-22 Apr. 2009, Denver and in the 8th Panhellenic Conference of Clinical Chemistry, 2-4 Oct. 2009, Patra, Greece.

23. A. Markou, **A. Strati**, L. Kaklamanis, M. Kafoussi, S. Stathopoulos, V. Georgoulas, E.S. Lianidou. "Evaluation of the prognostic significance of mature miR-10b expression in early breast cancer.". 99th American Association for Cancer Research, 12-16 Apr. 2008, San Diego, California and in the 33rd FEBS congress & 11th IUBMB conference, 28 Jun.-3 Jul. 2008, Athens, Greece.
24. **A. Strati**, A. Markou, N. Malamos, D. Mavroudis, V. Georgoulas, E.S. Lianidou. "TWIST1 expression in circulating tumor cells of early breast cancer patients". 99th American Association for Cancer Research, 12-16 Apr. 2008, San Diego, California and in the 33rd FEBS congress & 11th IUBMB conference, 28 Jun.-3 Jul. 2008, Athens, Greece.
25. M. Kioulafa, **A. Strati**, A. Stathopoulou, N. Malamos, D. Mavrudis, V. Georgoulas and E. S. Lianidou. "Detection of RASSF1A promoter methylation in cell free circulating DNA in plasma of early breast cancer patients". 6th International Symposium on Minimal Residual Cancer (ISMRC), 19-22 Sep. 2007, Hamburg, Germany.
26. **A. Strati**, E. Mavrogiannou, A. Stathopoulou, E.G. Tsaroucha, L. Kaklamanis, E.S. Lianidou. "Real time RT-PCR quantification of human telomerase reverse transcriptase (hTERT) splice variants in non small cell lung cancer (NSCLC)". 3rd Annual Greek Anticancer Conference, 26-29 Apr. 2007, Athens, Greece and in the 17th IFCC - FESCC European Congress of Clinical Chemistry and Laboratory Medicine, 3-7 Jun. 2007, Amsterdam, Netherlands.
27. **A. Strati**, Z. Papoutsi, E. Lianidou, P. Moutsatsou. "Effect of ellagic acid on expression of human telomerase reverse transcriptase (hTERT) in estrogen receptor-positive MCF-7 breast cancer cells". 12th International Congress on Hormonal Steroids and Hormones and Cancer, 16-20 April. 2005, Athens, Greece.

JOURNAL REFEREE

Measurement Impact Factor 2014: 1.484

Clinical Chemistry and Laboratory Medicine (CCLM) Impact Factor 2014: 2.707

COMPLETED RESEARCH SUPPORT

1. **PENED grant** of the Greek General Secretariat of Research and Technology and Bioanalytica SA. The goal of this project was to develop a multiplex real time PCR assay for the expression of 4 specific genes in breast cancer CTC.

Role: Ph.D. student

2. "**SYNERGASIA 2009 PROGRAMME**". This program is co-funded by the European Regional Development Fund and National Resources (General Secretariat of Research and Technology in Greece), Project code: Onco-Seed diagnostics. (16/12/2010 -15/12/2015)

Role: Researcher (Postdoc)

3. **Liquid biopsy**: In vivo capturing and molecular characterization of circulating tumor cells as a novel tool for improving tertiary prevention in breast cancer. This program is co-funded by the European Regional Development Fund and National Resources (General Secretariat of Research and Technology in Greece) (03/2014-10/2015)

Role: Researcher (Postdoc)

ONGOING RESEARCH SUPPORT

1. **UICC Yamagiwa-Yoshida Memorial International Cancer Study** Grant by the Union for International Cancer Control following an international scientific review by experts at Joan & Sanford I. Weill Medical College of Cornell University (3/2015-2/2016)

PROFESSIONAL MEMBERSHIPS

Associate member of American Association of Cancer Research

LANGUAGES

Reading and basic speaking competence in English.