Curriculum Vitæ

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Degrees

BSc in Chemistry, Department of Chemistry, University of Athens, Greece, 1983.
PhD in Analytical Chemistry, Department of Chemistry, University of Athens, Greece, 1988.

Postdoctoral Experience

September 1996 - July 1997	Postdoctoral Research Associate, Department of Pathology and Laboratory Medicine, Mount Sinai Hospital, University of Toronto, Canada (Supervisor: Prof. E.P. Diamandis)
July 1989 - February 1990	Postdoctoral Research Associate, Clinical Biochemistry Department, The Toronto Hospital, University of Toronto, Canada (Supervisor: Prof. E.P. Diamandis)

Attendance of Advanced Workshops and Postgraduate Courses

1. DNA microarrays. Eurobiochips, IBC Global Conferences, Life Sciences division, Munich, June 2001.
2. Nucleic acid and protein preparation for DNA microarrays. Workshop A. Eurobiochips, IBC Global Conferences, Life Sciences division, Munich, June 2001.
3. “Genome Sequence and comparative analysis”, Advanced Workshop (European Commission, Biotechnology Program), Aristotle University of Thessaloniki, November 1999, Greece.

4. "Molecular Biology Techniques", Postgraduate course, University of Toronto, Canada, (one semester) 1996-1997.
5. "Immunoassays", Postgraduate course, University of Toronto, Canada, (one semester) 1989-1990.
6. Advanced Euro HPLC Training Course and Workshop. Patras, Greece, 7-10/4, 1992.

Positions

November 1997 - present	Assistant Professor, Laboratory of Analytical Chemistry, University of Athens, Greece.
September 1996 - July 1997	Sabbatical Leave, University of Toronto, Department of Clinical Biochemistry.
April 1990 - November 1997	Lecturer, Laboratory of Analytical Chemistry, University of Athens, Greece.
July 1989 - February 1990	Postdoctoral Research Associate, University of Toronto, Department of Clinical Biochemistry.
November 1988 - June 1989	Postdoctoral Research Associate, University of Athens, Laboratory of Analytical Chemistry.
April 1988 - April 1989	Scientific Consultant in "Farmetrika, S.A.", a company affiliated with the National Drug Organization, in a project dealing with the characterization of *in vitro* diagnostic products imported to Greece.

Society Memberships

1. Member of the American Association for cancer research, since 2001.
2. Member of the Association of Greek Chemists, since 1983.
3. Member of the Greek Association of Clinical Chemistry / Clinical Biochemistry, since 1990.
4. Member of the Hellenic Society of Biochemistry and Molecular Biology, since 1999.

Research Experience

a) Molecular Biology Techniques

- Protein, DNA, RNA Extraction
- Polymerase Chain Reaction (PCR, Asymmetric PCR, Multiplex PCR)
- Quantitative PCR
- Real time PCR
- Development of highly sensitive quantitative luminometric hybridization assays
- DNA Sequencing (automated)
- Mutational Analysis (SSCP, Fragment analysis, PTT, DGGE)

b) Immunoassays

- Immunoassay Development (Time-Resolved Fluorometric Detection System) for the quantitative assessment of
  - Cytokines (IL-6, TNF-a)
  - BRCA1 protein
  - AFP, CK-MB
- Production and purification of enzymes by biotechnological methods
- Conjugation of biomolecules (antibodies) with a variety of macromolecules for the synthesis of novel fluorescent labels for immunoassays and use of various separation techniques such as gel filtration, HPLC, affinity chromatography.
- Fluorescence Spectroscopy: Development of ultra sensitive analytical methodology for immunoassays, based on the fluorescence of rare earth metal chelates (time-resolved and second derivative synchronous scanning fluorescence spectrometry (SDSFS) techniques).
- Luminescence detection systems
- Gel Filtration Chromatography
- Ion Exchange Chromatography
- Protein A Affinity Chromatography

Current Research Interests

- Use of cDNA microarrays for the study of gene expression in tumor cells circulating in peripheral blood of breast cancer patients (project to be started soon).
- Development of a ultra sensitive analytical methodology for the quantitative determination of hTERT mRNA splice variants by highly sensitive luminometric hybridization assays and real time PCR (Light cycler).
- Clinical evaluation of the quantitative determination of CK-19 mRNA by our recently developed highly sensitive quantitative luminometric hybridization assays in peripheral blood of breast cancer patients for the early detection of micrometastasis.
- Development of ultra sensitive analytical methodology for the quantitative determination of CK-19 mRNA by real time PCR (Light cycler).
- Mutational analysis of BRCA-1 and BRCA-2 genes in breast and ovarian cancer families in Greece.

Current Research Grants

- Development and clinical evaluation of highly sensitive molecular diagnostics methods for the early detection of micrometastasis in breast cancer. GSRT, Ministry of research and Technology, Greece.
- Development of a highly sensitive RT-PCR method for the quantitative determination of hTERT mRNA. Clinical evaluation for the early detection of micrometastasis in breast cancer. Univ of Athens.

Publications

1. M. Kolioliou, M. Talieri and **E.S. Lianidou.** Development of a quantitative luminometric hybridization assay for the determination of telomerase activity, Clin Biochem, 34, 277-284, 2001.
2. A. Stathopoulou, K. Angelopoulou, V. Georgoulias and **E.S. Lianidou.** Quantitative RT-PCR luminometric hybridization assay with an RNA-Internal standard for cytokeratin-19 mRNA in Peripheral Blood of patients with breast cancer, Clin Biochem, 34, 651-659, 2001.
3. I Konstantopoulou, C Kroupis, A Ladopoulou, A Pantazidis, D Boumba, **ES Lianidou**, MB Petersen, L Florentin, E Chiotellis, G Nounesis, E Efstathiou, D Skarlos[7], C Tsionou, G Fountzilas, D Yannoukakos. BRCA1 Mutation Analysis In Breast / Ovarian Cancer Families From Greece, Human Mutation 16/3, 272-3, 2000.
4. Angelopoulou K., Borchert G., Melegos D., **Lianidou E.S**., Lilja H., Diamandis E.P. Characterization of the BRCA1-Like immunoreactivity in seminal plasma. Urology, 54, 753-762, 1999.
5. K. Petrovas, S. Daskas and **E.S.Lianidou**. Determination of Tumor Necrosis Factor-alpha (TNF-alpha) in serum by a highly sensitive enzyme amplified lanthanide luminescence immunoassay. Clin. Biochemistry, 32/4, 241-247, 1999.
6. **E.S. Lianidou**, M.A. Levesque, D. Katsaros, K. Angelopoulou, H Yu, F. Genta, R. Arisio, M. Massobrio, B. Bharaj and E. P. Diamandis. Immunofluorometric assay of p53 protein versus sequencing of p53 exons 5 to 9 for the detection of p53 abnormalities in ovarian carcinoma. Anticancer Res., 19, 749-756, 1999.
7. **E.S.Lianidou**, K.Angelopoulou and E.P.Diamandis. Fragment analysis of the p53 gene in ovarian tumors. Clin. Biochemistry, 31/7, 551-553, 1998.
8. L. Bathrellos, **E.S.Lianidou**, and P.C.Ioannou. A highly sensitive enzyme amplified lanthanide luminescence immunoassay for interleukin- 6 (IL-6). Clin. Chem., 44, 1351-1353, 1998.
9. **E.S.Lianidou**, D.N.Melegos, and E.P.Diamandis. The BRCA-1 Tumor suppressor gene product shares immunoreactive epitopes with a protein present in seminal plasma. Clin. Biochemistry, 30/5, 425-432, 1997.
10. C.J. Veiopoulou, P.C. Ioannou and **E.S. Lianidou** . Application of terbium sensitized fluorescence for the determination of fluoroquinolone antibiotics ciprofloxacin, norfloxacin and pefloxacin in serum. Journal of Pharmaceutical and Biomedical Analysis, 15, 1839-1844,1997.
11. C.J. Veiopoulou, **E.S. Lianidou**, P.C. Ioannou and C.E. Efstathiou. Comparative study of fluorescent ternary terbium complexes. Application in enzyme amplified fluorimetric immunoassay for a-fetoprotein. Analytica Chimica Acta, 335, 177-184, 1996.
12. **E.S.Lianidou**, P.C.Ioannou. A simple spectrofluorimetric method for the determination of *p*-aminobenzoic acid and *p*-aminosalicylic acids in biological fluids based on Terbium sensitized luminescence. Clinical Chemistry, 42, 1659-1665, 1996.
13. **E.S.Lianidou**, P.C.Ioannou, C.K.Polydorou, C.E.Efstathiou. Simultaneous determination of diflunisal and salicylic acid in human serum and urine as ternary complexes with terbium and

EDTA by second derivative synchronous fluorescence spectrometry. Analytica Chimica Acta, 320, 107-114, 1996.

14. P.C.Ioannou, **E.S.Lianidou**, D.G.Konstantianos. A simple, rapid, and sensitive spectrofluorimetric method for the determination of diflunisal in serum and urine based on its ternary complex with terbium and EDTA. Analytica Chimica Acta, 300, 237-241, 1995.
15. **E.S. Lianidou**, P.C.Ioannou, E.Sacharidou. Second derivative synchronous scanning fluorescence spectrometry as sensitive detection technique in immunoassays. Analytica Chimica Acta, 290, 159-165, 1994.
16. **E.S. Lianidou**, C.D. Lazaropoulou, A. Makris, S. Georgiou, A. Alexopoulou, D.S. Papastathopoulos, P.A.Siskos and S.J.Hadziyannis. Application of an enzymatic fluorimetric method in the quantitation of serum ursodeoxycholic acid in primary biliary cirrhosis under ursodeoxycholic acid therapy. Clinical Chemistry and Enzymology Communications, 5, 55-61, 1992.
17. **E.S.Lianidou**, T.K.Christopoulos, E.P.Diamandis. Assay of creatine kinase isoenzyme MB in serum with time resolved immunofluorometry. Clinical Chemistry, 36/9, 1679-1683, 1990.
18. T.K.Christopoulos, **E.S.Lianidou**, E.P.Diamandis. Ultra sensitive Time resolved method for alpha-Fetoprotein. Clinical Chemistry, 36/8,1497-1502, 1990.
19. **E.S.Lianidou**, D.S.Papastathopoulos, P.A.Siskos. Enzymatic fluorimetric determination of ursodeoxycholic acid in urine using Clostridium absonum 7-beta-hydroxysteroid dehydrogenase. Analytical Letters, 22/10, 2265-2280, 1989.
20. **E.S.Lianidou**, D.S.Papastathopoulos, P.A.Siskos. Determination of ursodeoxycholic acid in serum by a new fluorimetric enzymatic method using 7-beta-hydroxysteroid dehydrogenase from *Clostridium absonum*. Analytical Biochemistry, 179, 341-346,1989.
21. **E.S.Lianidou**, A.Papanastasiou-Diamandi, P.A.Siskos. Enzymic fluorimetric determination of sulphated and non-sulphated primary bile acids in urine using a rapid solvolysis technique. Analyst, 113, 1459-1463, 1988.
22. **E.S.Lianidou**, P.A.Siskos. Determination of kinetic parameters for 3a-hydroxysteroid dehydrogenase using the five major bile acids and their conjugates as substrates and correlation with their structure and solubility. Analyst, 112, 753-755, 1987.